

COMPUTER APPLICATION

For Polytechnics

AZELIANA EMBONG | NORHAZALIANA AFFENDI
SITI NURADIBAH EDROS | LEE KIM THOR
NOR FIZA ABD HAMID | NOORHAFIZ KANAFI



MATHS COMP

3rd Edition

THIS BOOK
BELONGS TO

QA75.5 .C66 2012



0000028942

Computer application for polytechnics / Azeliana Embong...[et al.].

Name

MURYL NAJIAH BINTI JOHARI

Registration's Number

06DET13F1162

Programme

Lecturer's Name

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COURSE OUTLINE
BC101 COMPUTER APPLICATION

Credit(s): 1

Lecture: 0 hour, Practical: 30 hours

SYNOPSIS

COMPUTER APPLICATION provides knowledge and skills to students relating to various types of computer systems and its application especially pertaining to hardware and software. This course also exposes students to different packages of software applications for word processor, spreadsheet, project management, presentation and internet. The students will also have opportunity to manipulate and create a variety of techniques and styles to produce documents, spreadsheets, charts and presentations. This course emphasizes on the practical aspects of using computer applications.

LEARNING OUTCOMES

Upon completion of this course, students should be able to:-

No.	Course Learning Outcome (CLO)	PLO	GSA & LD
1.	Identify basic of computer system.	PLO1	LD1
2.	Use internet to search appropriate data and produce simple website.	PLO2	LD2
3.	Produce documents using word processor, spreadsheet, project management, presentation and multimedia software.	PLO2	LD2

Generic Student Attributes (GSA):

- GSA 1** Communications Skills
- GSA 2** Critical Thinking and Problem Solving Skills
- GSA 3** Teamwork Skills
- GSA 4** Moral and Professional Ethics
- GSA 5** Leadership Skills
- GSA 6** Information Management Skills and Continuous Learning
- GSA 7** Entrepreneurship Skills

Learning Domain (LD):

- LD 1** Knowledge
- LD 2** Technical Skills
- LD 3** Professionalism and Ethics
- LD 4** Social Skills and Responsibilities
- LD 5** Communication Skills
- LD 6** Critical Thinking
- LD 7** Life Long Learning
- LD 8** Entrepreneurial Skills
- LD 9** Teamwork / Leadership Skills

COMPUTER APPLICATION

00028942

3rd Edition

:: AZELIANA EMBONG :: NORHAZALIANA AFFENDI ::
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:: NOR FIZA ABD HAMID :: NOORHAFIZ KANAFI ::

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MATHEMATICS, SCIENCE & COMPUTER DEPARTMENT
POLYTECHNIC PORT DICKSON
NEGERI SEMBILAN DARUL KHUSUS

= IF (< , " under budget , " over budget ")

**DISTRIBUTION OF STUDENT LEARNING TIME
ACCORDING TO COURSE LEARNING – TEACHING ACTIVITY**

No.	Learning and Teaching Activity	SLT
FACE TO FACE		
1.0	<u>Delivery Method</u>	
1.1	Lecture [0 hour(s) x 15 week(s)]	0
1.2	Practical [2 hour(s) x 15 week(s)]	30
1.3	Tutorial [0 hour(s) x 15 week(s)]	
2.0	<u>Coursework Assessment (CA)</u>	
2.1	Lecture-hour-assessment - Test [0] - Quiz [1]	1
2.2	Practical-hour-assessment - Laboratory Exercise [5]	
2.3	Tutorial-hour-assessment - Tutorial Exercise [0]	
NON-FACE TO FACE		
3.0	<u>Coursework Assessment (CA)</u> - Project [1]	4
4.0	<u>Preparation and Review</u>	
4.1	Lecture [0 hour(s) x 15 week(s)] - Preparation before theory class eg: download lesson notes. [] - Review after theory class eg: additional references, discussion group, and discussion. []	0
4.2	Practical [0.3 hour(s) x 15 week(s)] - Preparation before practical class/field work/survey eg: review notes, [✓] - Post practical activity eg: lab report, additional references and discussion session []	4
4.3	Tutorial [0 hour(s) x 15 week(s)] - Preparation for tutorial []	0
4.4	Assessment [1 hour(s) x 1 = 1] - Preparation for quiz	1
	Total	40
	Credit = SLT/40	1
Remark: 1. Suggested time for Quiz : 10 - 15 minutes Test (Theory) : 20 - 30 minutes Test (Practical) : 45 - 60 minutes 2. 40 Notional hours is equivalent to 1 credit 3. Laboratory Exercises are conducted during Practical Hours		

TEACHING METHODOLOGY

Lecture, Question & Answer, Demonstration, Laboratory, Tutorial, Self-directed learning, Presentation, Assignment.

WEEKLY SCHEDULE

Week 1	:	Students Registration
Week 2 & 3	:	1.0 – COMPUTER SYSTEM
Week 4 & 5	:	2.0 – INTERNET
Week 6 & 7	:	3.0 – WORD PROCESSOR
Week 8	:	Mid-Semester Break 1
Week 9 & 10	:	4.0 – SPREADSHEET
Week 11 - 13	:	5.0 – PROJECT MANAGEMENT
Week 14 -17	:	6.0 – PRESENTATION AND BASICS OF MULTIMEDIA
Week 18	:	Revision Week
Week 19 - 20	:	Final Examination

GRADING (CONTINUOUS ASSESSMENT)

No.	Assessment	Number (minimum)	% total	
1	Quiz	1	10	
2	Project	1	40	
3	Laboratory Exercise	5	50	
	Overall Total	7	100	

PRACTICAL WORK SCHEDULE

No.	Lab Title	Hours
1	COMPUTER SYSTEM	4
2	INTERNET	4
3	WORD PROCESSOR	4
4	SPREADSHEET	4

Azeliana Binti Embong

Editor

**DISTRIBUTION OF STUDENT LEARNING TIME
ACCORDING TO COURSE LEARNING – TEACHING ACTIVITY**

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1.2	Practical [2 hour(s) x 15 week(s)]
1.3	Tutorial [0 hour(s) x 15 week(s)]
2.0	<u>Coursework Assessment (CA)</u>
2.1	Lecture-hour-assessment
	- Test [0]
	- Quiz [1]
2.2	Practical-hour-assessment
	- Laboratory Exercise [5]
2.3	Tutorial-hour-assessment
	- Tutorial Exercise [0]
NON-FACE TO FACE	
3.0	<u>Coursework Assessment (CA)</u>
	- Project [1]
4.0	<u>Preparation and Review</u>
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	- Preparation before theory class eg: download lesson notes
	- Review after theory class eg: additional references, discussion
4.2	Practical [0.3 hour(s) x 15 week(s)]
	- Preparation before practical class/field work/survey eg: preparation of equipment
	- Post practical activity eg: lab report, additional references
4.3	Tutorial [0 hour(s) x 15 week(s)]
	- Preparation for tutorial
4.4	Assessment [1 hour(s) x 1 = 1]
	- Preparation for quiz
Remark:	
1. Suggested time for	
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Week 19 - 20	:	Final Examination

GRADING (CONTINUOUS ASSESSMENT)

No.	Assessment	Number (minimum)	% total	Week
1	Quiz	1	10	W3
2	Project	1	40	W4
3	Laboratory Exercise	5	50	W5, W7, W10, W13, W17
	Overall Total	7	100	

PRACTICAL WORK SCHEDULE

No.	Lab Title	Hours	Week
1	COMPUTER SYSTEM	4	W2 – W3
2	INTERNET	4	W4 – W5
3	WORD PROCESSOR	4	W6 – W7
4	SPEADSHEET	4	W9 – W10
5	PROJECT MANAGEMENT	6	W11 - W13
6	PRESENTATION AND BASICS OF MULTIMEDIA	8	W14 - W17
	Overall Total	30	

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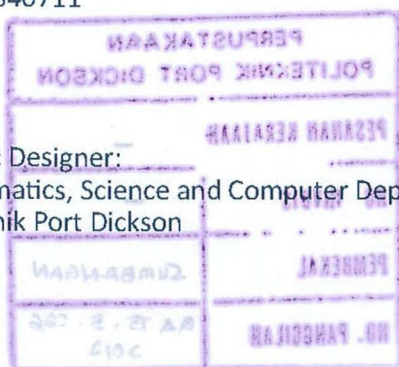
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POLYTECHNIC PORT DICKSON
NEGERI SEMBILAN DARUL KHUSUS

Assalamualaikum and Peace be Upon You,

In the name of Allah, the Almighty who give us the truth, the knowledge, the enlightenment and with regards to Prophet Muhammad S.A.W. May Allah give us the ability to continue our good deeds in this field.

Alhamdulillah, finally the module Computer Engineering for polytechnics 3rd edition published successfully. Referring to the 2nd edition module, this module is developed based on the latest Computer Application, Polytechnic Course Syllabus and is written by the lecturers from the Mathematics, Science and Computer Department, Polytechnic Port Dickson. The contents of this module covered all the Computer Application course syllabus of Polytechnic Port Dickson.

This module is developed to fulfil the latest requirement of polytechnic program for the first semester. This module also supported by lab works and notes to ease the students learning ability.

This module is produced to guide the students under Computer Application syllabus.

We would like to thank all the lectures that involved for their efforts given to ensure the successful in publishing of this 3rd Edition Computer Application Module.

Chapter 1 - Computer System	Norhazaliana Binti Affendi
Chapter 2 – Internet	Siti Nuradibah Binti Edros
Chapter 3 – Word Processing	Azeliana Binti Embong Lee Kim Thor
Chapter 4 – Spreadsheet	Lee Kim Thor
Chapter 5 – Project Management	Azeliana Binti Embong
Chapter 6 – Presentation and Basics of Multimedia	Nor Fiza Binti Abd Hamid, Norhazaliana Binti Affendi, Lee Kim Thor, Noorhafiz Bin Kanafi

We hope this module can be easier for the learning process of Computer Application Course. Lastly, we also hope any comments from students or other readers to make sure this module can be improved for the further edition. Thank you so much.

Azeliana Binti Embong
Editor

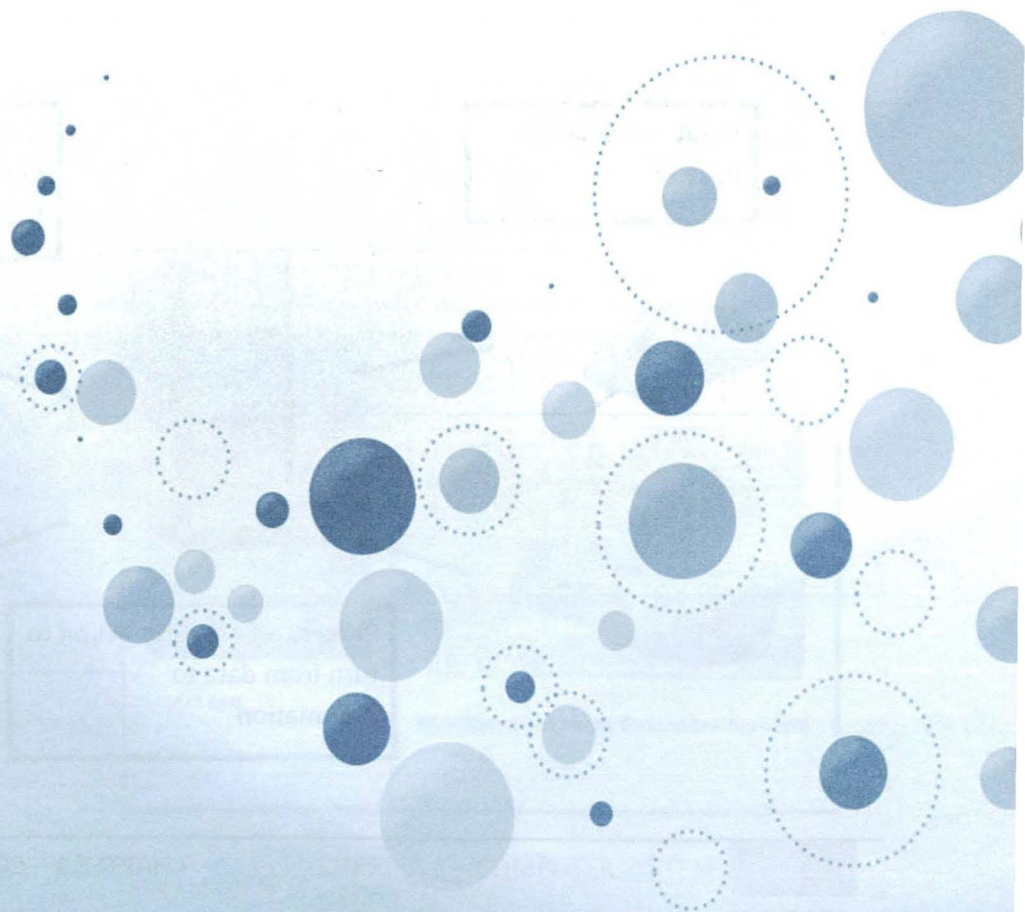
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CHAPTER 1: COMPUTER SYSTEM



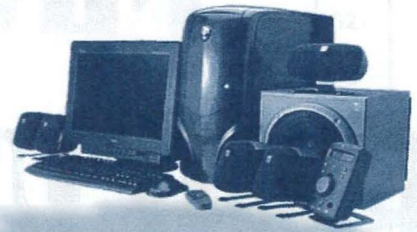


1.0 INTRODUCTION

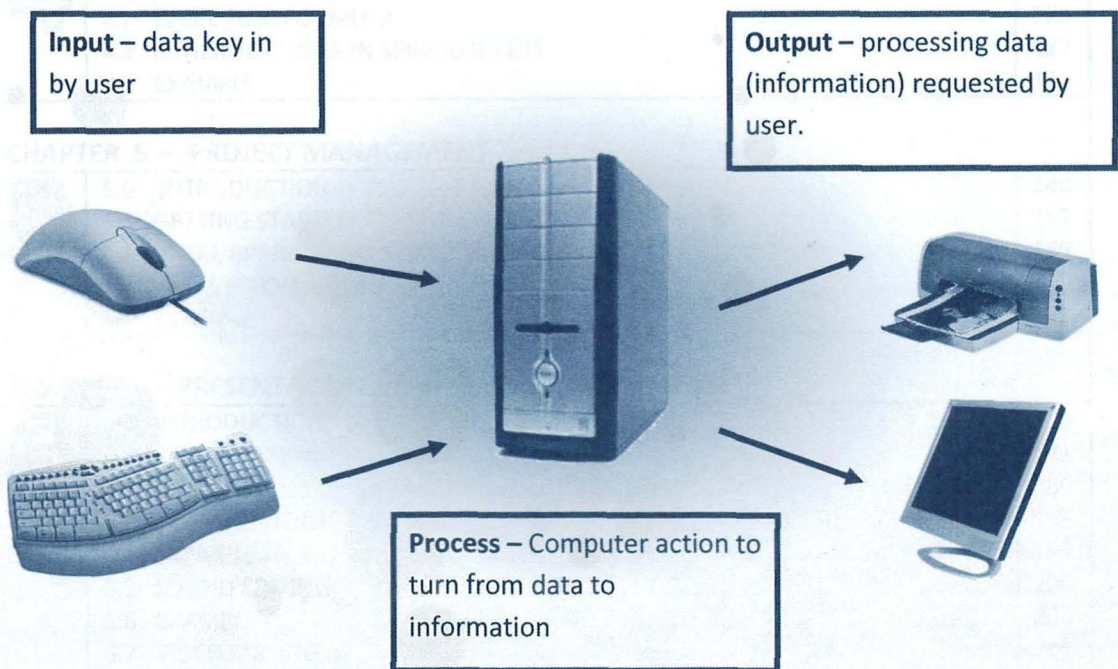
Nowadays, computers become as important tool in our lives. For example, you as student need to type your assignment using computer and to print it, the printer need to connect to the computer. Besides that, when you withdraw money through ATM, the task perform using computer. Therefore some daily activities become easier and faster when using computer.

WHAT IS COMPUTER?

Computer is electronic devices that can follow instructions based on user data. Data (input) will be process according specified rules and turn out as information (output).



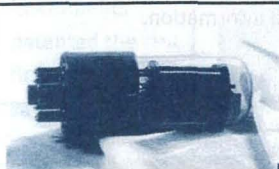
DATA PROCESSING COMPONENTS



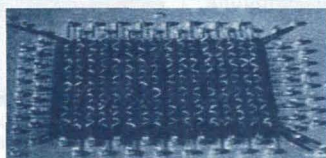


1.1 COMPUTER EVOLUTION

FIRST GENERATION (1937-1956) – MAINFRAME – VACUUM TUBE



Vacuum tube



Whirlwind core memory use in UNIVAC



Magnetic drum memory of the Atanasoff-Berry Computer

1937 - John V. Atanasoff designed the first digital electronic computer

1939 - Atanasoff and Clifford Berry demonstrate the ABC prototype

1941 - Konrad Zuse in Germany developed in secret the Z3

1943 - Britain, the Colossus - decode German messages

1944 - Howard Aiken - mechanical computer for the Navy

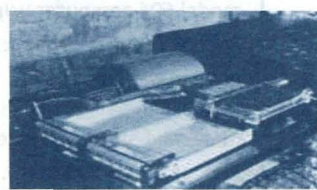
1945 - J.W. Mauchly and J.P Eckert built ENIAC (US Army)

1946 - Eckert-Mauchly built ENIAC-type computer with magnetic tape

input/output (UNIVAC).

1948 - Howard Aiken - electronic computer with 5000 tubes

1950 - William C. Norris to develop the Atlas, used 2700 vacuum tubes (based on secret code breaking, navy)



Atanasoff- Berry Computer



UNIVAC 1946, Smithsonian NMAH

1950 1951 1952 1953 1954 1955 1956

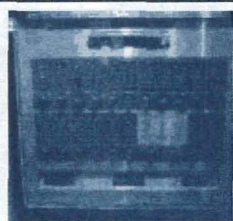
1951 - S. A. Lebedev developed the MESM computer in Russia

1951 - Remington Rand tested UNIVAC

1952-Dr. H.Grace introduce A6 compiler (software to converts high level language into computer instruction for execution)

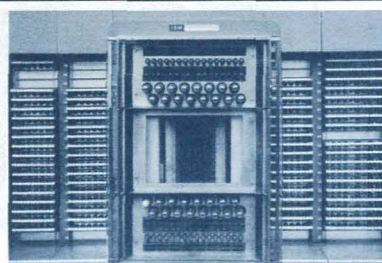
1951-53

IBM adds computers to its business equipment.



IBM 650

1954 - The SAGE aircraft-warning system was the largest vacuum tube computer system ever built.



SAGE (Semi-Automatic Ground Environment)

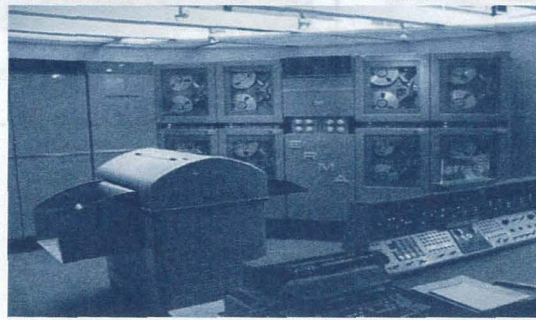
SECOND GENERATION (1957-1963) – MINICOMPUTER - TRANSISTOR

1959 - General Electric Corporation delivered its Electronic Recording Machine Accounting (ERMA) computing system to the Bank of America in California

1963 – Introduction of the first computer industry Standard character set – ASCII (American Standard code for information Interchange) that enables computers to exchange information.

1958 - IBM introduce the model 604 computer using transistors, that became the basis of the model 608.

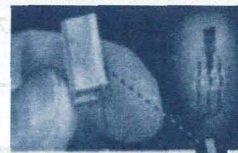
(first solid-state computer for the commercial market).



Electronic Recording Machine Accounting (ERMA)

1957 1958 1959 1960 1961 1962 1963

1957 – Instruction can be stored in computer memory and high-level languages FORTRAN (Formula Translator) was introduced.

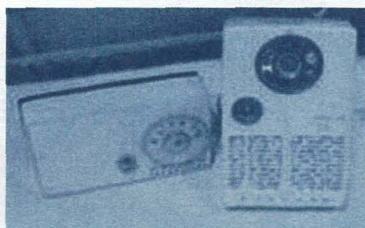


1959 - Introduction of the removable disk pack, providing users with fast access to stored data

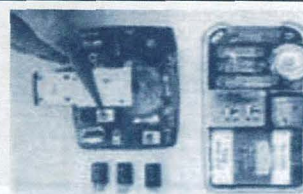
1960 – First introduction of Business Application programming languages - COBOL (Common Business-Oriented Language)



Regency transistor radio from Smithsonian NMAH



Philco and Emerson transistor radios, from Smithsonian NMAH



Maico hearing aid before and after transistors.

THIRD GENERATION (1964-1970) – MICROCOMPUTER – INTEGRATED CIRCUIT

1964 - Jack Kilby of Texas Instruments patented the first integrated circuit in Feb.

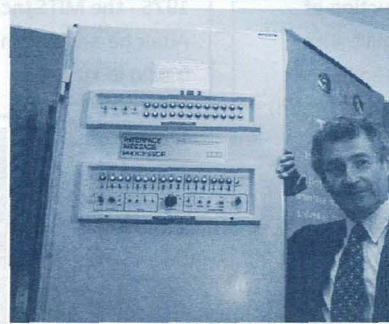


Integrated Circuit (IC)

1965 – Introduction of the BASIC programming language

1969 - Development began on ARPAnet, beginning of internet.

-First generation routers was introduced named Interface Message Processor (IMP).



1964 1965 1966 1967 1968 1969 1970

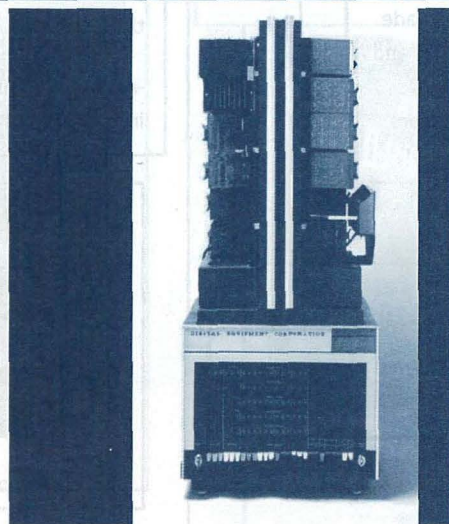
1965 – Commercial minicomputer (PDP-8) was introduced by Digital Equipment Corporation (DEC).

1964 - IBM produced SABRE, the first airline reservation tracking system for American Airlines;

- IBM announced the System/360 all-



IBM System/360

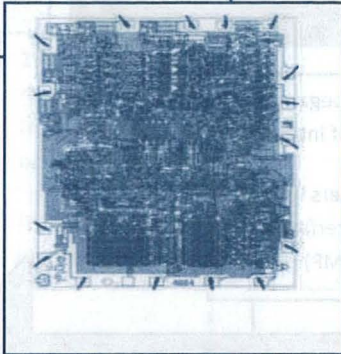


Minicomputer PDP-8
(DEC)

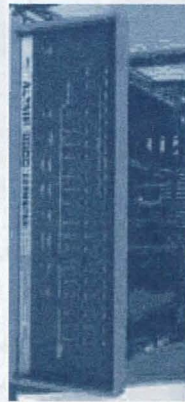
FOURTH GENERATION (1971-1990) – SUPERCOMPUTER - LARGE SCALE INTEGRATION AND MICROPROCESSOR

1971-Introduction of computers built with chips that used LSI (Large-scale Integration)

- Ted Hoff at Intel develop Intel 4004 microprocessor



1975 - the MITS, Inc sold Altair personal computer is sold in kit form.



1980 - IBM signed a contract with the Microsoft Co. of Bill Gates and Paul Allen and Steve Ballmer to supply an operating system for IBM's new PC model.



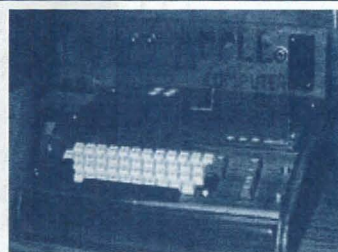
IBM PC

1971 1972 1973 1974 1975 1976 1977 1978 1979 1980

1972 - Intel made the 8-bit 8008 and 8080 microprocessors

1976 - Jobs and Wozniak developed the Apple personal computer;

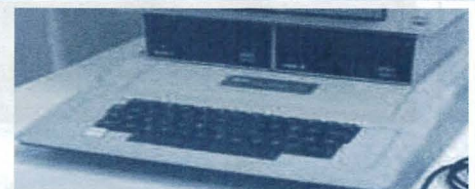
-Alan Shugart introduced the 5.25-inch floppy disk



Apple Computer I

1973 - IBM developed the first true sealed hard disk drive-Winchester

1974- At Xerox PARC – First Local Area Network (LAN) Ethernet was developed



Apple II personal computer, 5.25-inch Disk drives.

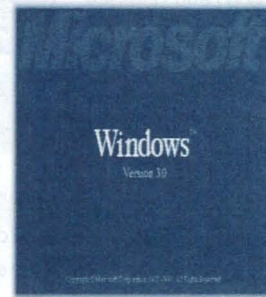


IBM PC

1990 – Microsoft release Windows 3.0, with an enhanced graphical user interface and the ability to run multiple applications

1981- Introduction of the IBM PC, which contains an Intel Microprocessor chip and Microsoft's MS – DOS operating system.

1985 – Microsoft introduces their Windows graphical user interface



Windows 3.0

1981 1982 1983 1984 1985 1986 1987 1988 1989 1990

1981- first commercial portable computer, the Osborne weighed 24 lbs. and cost less than \$2,000.(software library)



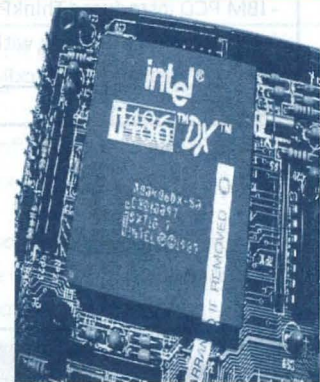
Osborne 1 Portable Computer

1984 - Apple Computer introduced the Macintosh personal computer.



Apple Computer

1989- Introduction of Intel 486 – First 1,000,000 transistor microprocessor



Intel 486 Microprocessor

FIFTH GENERATION (1991 AND BEYOND) WORLD WIDE WEB (WWW)

1991 - Tim Berners-Lee was developed World-Wide Web (WWW) and released by CERN.

1995 - Microsoft release Windows 95 – major upgrade to its Windows Operating system.

1993 - The first Web browser called Mosaic was created by student Marc Andreessen and programmer Eric Bina at NCSA.



1991

1992

1993

1994

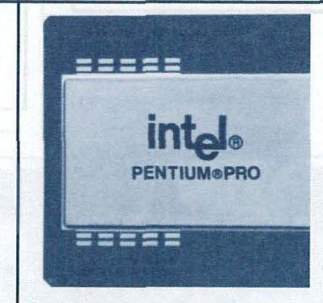
1995

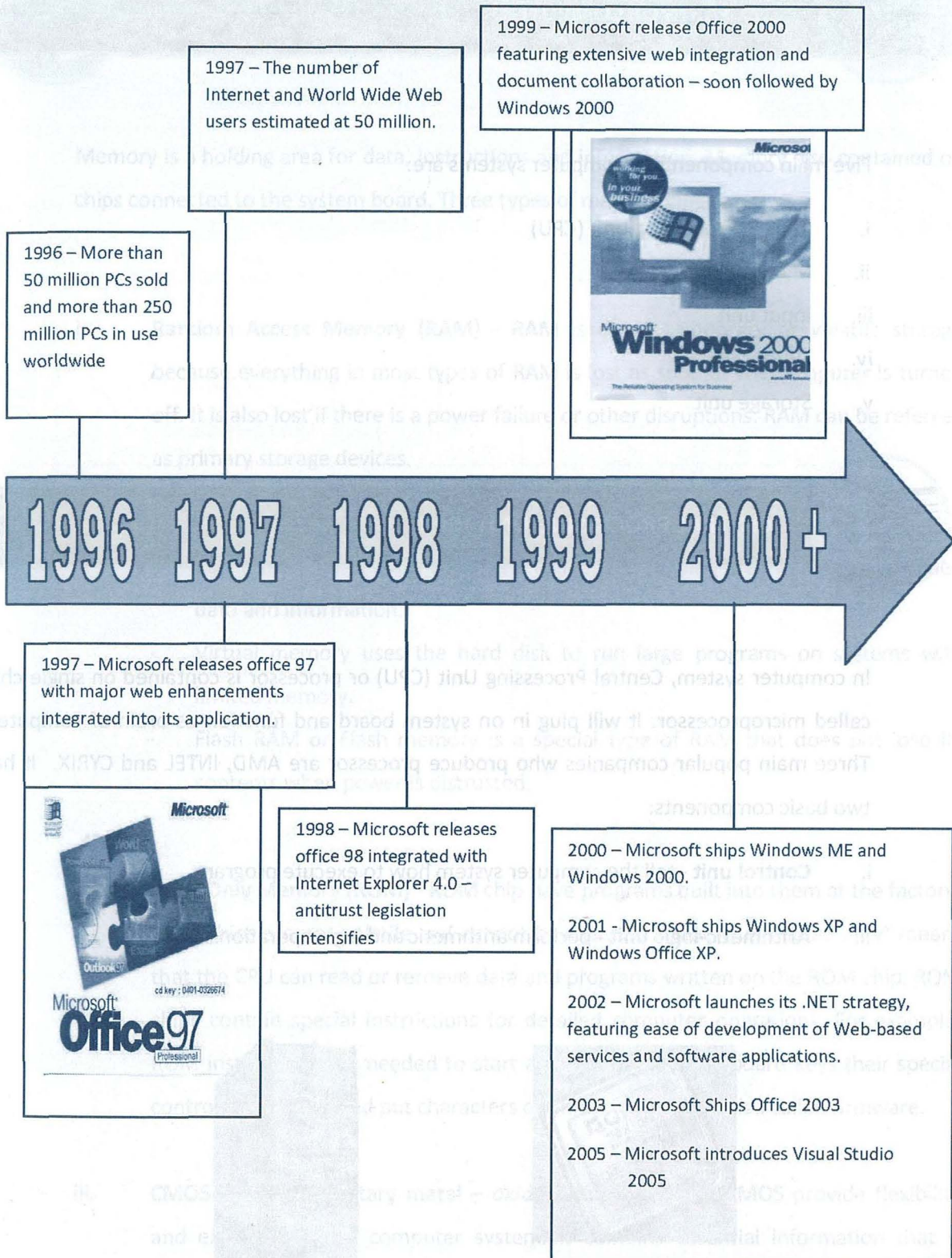
1992 – Microsoft introduces Windows 3.1.

- IBM PCD introduces ThinkPad, the industry's first notebook with a 10.4 inch color TFT display and TrackPoint.

1993 – Introduction of computer systems built with Intel's Pentium microprocessor.

1995 – Intel begins shipping the Pentium Pro microprocessor







1.2 PARTS OF COMPUTER

Five main components of computer systems are:

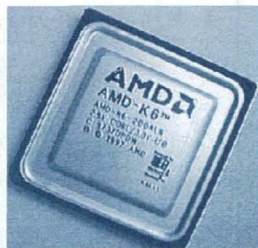
- i. Central Processing Unit (CPU)
- ii. Memory unit
- iii. Input unit
- iv. Output unit
- v. Storage unit



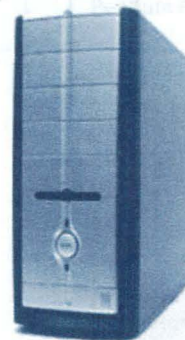
CENTRAL PROCESSING UNIT (CPU)

In computer system, Central Processing Unit (CPU) or processor is contained on single chip called microprocessor. It will plug in on system board and function as brain of computer. Three main popular companies who produce processor are AMD, INTEL and CYRIX. It has two basic components:

- i. **Control unit** - tell the computer system how to execute program.
- ii. **Arithmetic-logic unit** - perform arithmetic and logic operations.



AMD Processor



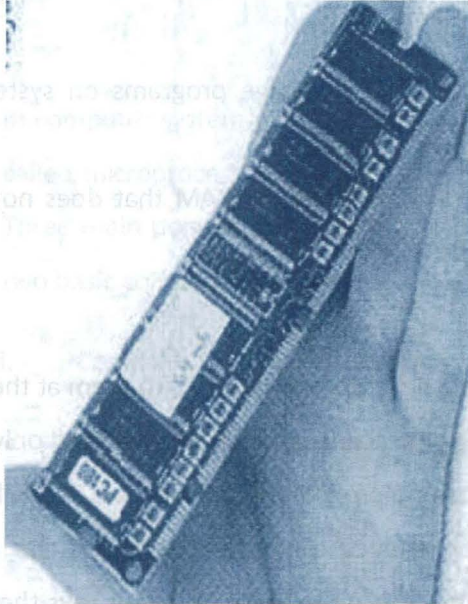
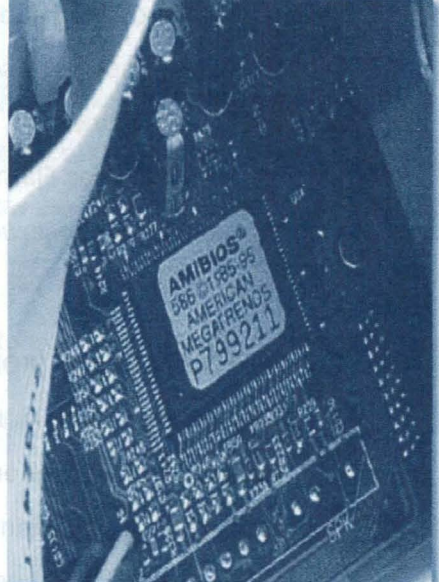
CPU

**MEMORY UNIT**

Memory is a holding area for data, instructions and information. Memory also contained on chips connected to the system board. Three types of memory chips are:

- i. **Random Access Memory (RAM)** - RAM is called temporary or volatile storage because everything in most types of RAM is lost as soon as the computer is turned off. It is also lost if there is a power failure or other disruptions. RAM can be referred as primary storage devices.
 - Cache memory or RAM cache is a high-speed holding area for frequently used data and information.
 - Virtual memory uses the hard disk to run large programs on systems with limited memory.
 - Flash RAM or Flash memory is a special type of RAM that does not lose its contents when power is distrusted.
- ii. **Read Only Memory (ROM)** - ROM chip have programs built into them at the factory. ROM chips are not volatile and cannot be changed by the user. "Read only" means that the CPU can read or retrieve data and programs written on the ROM chip. ROM chips contain special instructions for detailed computer operations. For example, ROM instructions are needed to start a computer, give keyboard keys their special control capabilities and put characters on the screen. ROMs also called firmware.
- iii. **CMOS – Complementary metal – oxide semiconductor** - CMOS provide flexibility and expandability to computer system. It contains essential information that is required every time the computer system is turned on. The chips supply such information as the current date and time, amount of RAM, type of keyboard, mouse, monitor and disk drives.

Differentiation between RAM and ROM:

RAM	ROM
- Volatile Memory	- Non Volatile Memory
- The contents will loss due to power switched off.	- The contents is permanently store and will not effect of power status.
- Can be Write and Read (content is editable)	- Only can be Read (contents can't be edit)
- Contents always change due to user.	- Contents are always fixed.
	
RAM	ROM



INPUT UNIT

Input is any data or instructions that are used by a computer. Input devices are hardware used to translate words, sounds, images and actions that people understand into a form that the system unit can process. For example, when using word processor application, user typically use keyboard to enter text and mouse to enter commands.

	Name of Device	Classifications	Characteristics
a.	Keyboards	There are 5 common types of keyboards design: - Traditional - Flexible - Ergonomic - Wireless - PDA	- Use to translate numbers, letters and special characters. - Some common keyboard features are: - Escape key – cancel a selection. - Function keys – shortcut to specific tasks. - Numeric keypad – Enters numbers and arithmetic symbols and controls cursor or insertion point. - Windows key – Displays the Start menu - Spacebar – enter blank spaces between characters - Navigation keys – control the cursor or insertion point on the screen.
b.	Mouse	There are 3 basic design of mouse: - Mechanical - Optical - Wireless	- A mouse controls a pointer on the monitor. Mouse pointer usually appears in the shape of an arrow but depends on application using by user.

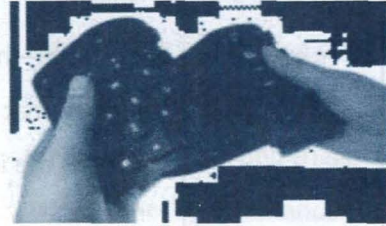
c.	Joystick	- Most popular input device for computer games. - User control game actions by varying the pressure, speed and direction of the joystick. - Additional button and triggers are used to specify commands or initiate specific actions.
d.	Touch screen	- A monitor with clear plastic outer layer. Behind the layer are crisscrossed invisible beams of infrared light. - This arrangement enables user to select action or commands by touching screen with a finger. - This input device is easy to use when user need to key in information quickly. - Usually used at restaurants, Automatic Teller Machines (ATMs) and information centers.
e.	Light pen	- A light – sensitive pen like device. - This light pen is placed against the monitor. - This closes a photoelectric circuit and identifies the spot for entering or modifying data. - Usually used to edit digital images.

f.	Optical Scanner	There are 2 basic types of scanner: i. Flatbed – like a copy machine. ii. Portable – handheld device that slide across the image.	- A device that use to copy or reproduce text or images. - It accepts documents consisting of texts and images and converts them to machine readable form. - Scanned documents are saved in files for further action.
g.	Digital Camera		- This camera use to capture still images. - It has same function with traditional camera except that images are recorded digitally on a disk or camera memories rather than on film. - Then the images will transfer to computer for further process.
h.	Digital video camera	WebCams (web cameras)	- This camera used to record motion digitally on a disk or in the camera memory's. - Most of them also can capture still images. - WebCams (web cameras) are specialized digital video cameras that capture images and send them to a computer for broadcast over the internet.
i.	Microphone		- This device need to record voice. - Voice Recognition System use microphone, sound cards and special software. - This system accepts voice commands to control computer operations and to create documents.

INPUT DEVICES



Keyboard



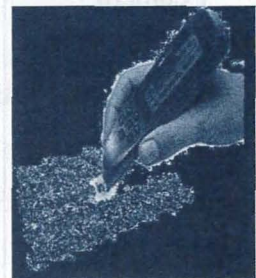
Flexible keyboard



Cordless mouse



PS/2 port Mouse



**Optical scanner
(handheld)**



Touch screen



Optical scanner (flatbed)



Webcam



Microphone



Joystick



OUTPUT UNIT

Output is a processed data or information. There are variety forms of outputs such as text, graphics, photos, audio or video. For example, when user input still image and sound in multimedia software the output can become a video. Output devices are any hardware used to provide or to create output from computer. They translate information that has been processed by the system unit into a form that humans can understand. Some of output devices that widely used are monitor, audio output devices, and printer.

	Name of Device	Classifications	Characteristics
a.	Monitor	Types of monitors are: - Cathode-Ray Tube (CRT) - Flat Panel / Liquid Crystal Display (LCD)	- Also known as display screen which can present visual images of text and graphics. - Output from monitor also referred as soft copy. - It variety in size, shape and cost and distinguish base on some features. - Some features that use to measure monitor are : - Clarity – quality and sharpness of the display images. - Resolution – is expressed as a matrix of these dots or pixels. Images are formed on a monitor by a series of dots or pixels. The higher resolution, the greater clarity of image produced. - Refresh rate – indicates how often a displayed image is updated or redrawn on the monitor.

b.	Printer	Types of printer are : i. Ink – jet ii. Laser iii. Thermal iv. Dot-matrix v. Plotters vi. Photo printer	- It uses to print output in hard copy. - It translates information that has been processed by the system unit and presents the information on paper. - Some feature to distinguish printers are: i. Resolution – measure clarity of images produced in dpi (dot per inch). The higher dpi, better quality images. ii. Color capability – provide by most printers but it is expensive, most user preferred use black in for document and colors for images and graphics. iii. Speed – is measured in the number of pages printed per minutes.
c.	Audio output devices	- Speakers - headphones	- It uses to translate audio information from the computer into sounds that people can understand. - Those devices are connected to a sound card in the system unit. - Function of output devices are : i. to play music. ii. vocalize translation between two languages . iii. communicate information from computer system to user and vice versa.

OUTPUT DEVICES



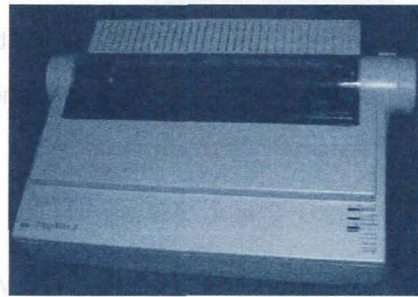
LCD Monitor



CRT monitor



Laser printer



Dot Matrix printer



Speaker



Headphone/



Inkjet printer



STORAGE UNIT

In this section storage unit refer to secondary storage devices since RAM is primary storage and lost its contents due to the power disruptions. Therefore, secondary storage devices are used to save, back up or transport files consisting of data or programs from one location to another. Secondary storage devices can retain data and information after the computer system is turned off. Writing is the process of saving information to secondary storage devices. Reading is the process of accessing information from secondary storage devices.

Some important characteristics of secondary storage include:

- Medium is the actual physical material that holds the data and programs
- Capacity measures how much a particular storage medium can hold.
- Storage devices are hardware that reads data and programs from storage media.
- Access speed measure the amount of time required by the storage device to retrieve data and programs.

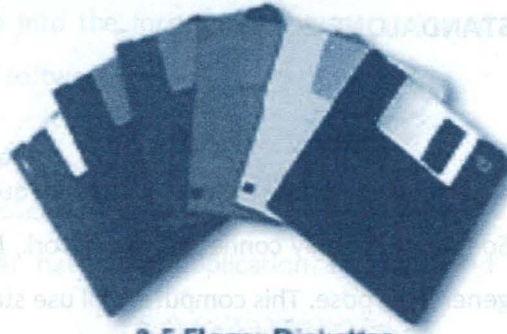
Secondary storage devices can be divided into two types. There are:

- i. **Internal storage unit** - Internal hard disks are located within system unit and typically identified as C drive. Two advantages internal hard disk over floppy disks are capacity and speed. Most applications are designed to be stored on a computer system's internal hard disk.
- ii. **External storage unit** - External storage devices are any device are located outside CPU. Example of external storage devices are floppy disc @ diskette, Compact Disc, DVD, Pen Drive (USB drive) and external hard disk.

STORAGE DEVICES



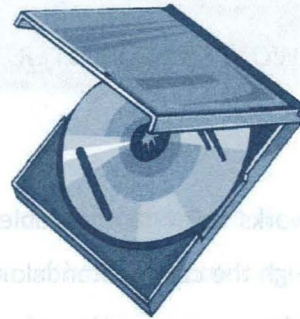
Internal hard disk



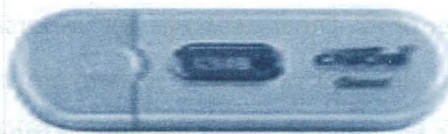
3.5 Floppy Diskettes



Pen drive (USB drive)



CD ROM



MP3 player/ USB drive



1.3 STANDALONE AND NETWORK COMPUTER

STANDALONE COMPUTER

A computer used on its own without requiring a connection to a local Area Network (LAN). Sometimes it may connect to a network, but it can be standalone PC as long as it used for general purpose. This computer will use standalone operating system also known as desktop operating system. This OS will be installed in computer's hard disk.

NETWORKED COMPUTER

Networks refer to the cables and electronic components that amplify the signals going through the cables. Standalone PCs were hooked up to the local network for file sharing and mainframe access. Nowadays, computers are commonly networked at home for family members to share internet connection, printer, scanner and other peripherals. When the computer is running local applications without internet access, the computer is technically a standalone PC. Network operating Systems (NOS) are used to control and coordinate computers that are networked or linked together. Some of network is small and connected to only limited number of PC. Other networks like university or organization have large and complex of network. Network operating System are typically located on one of the connected computer's hard disk or called networked server. This computer coordinates all communication between the other computers. Some examples of network operating servers are Novell NetWare, Windows NT Server, Windows XP Server, UNIX , VSE/ESA and z/OS.



1.4 COMPUTER SOFTWARE

Computer software is known as computer program. Computer programs are the instructions that tell computer how to process data into the form of user want and used between computer and user. Three major types of software are:-

- i. **System Software** – for computer purpose.
- ii. **Application Software** – for user purpose.
- iii. **Utilities Software** – to ensure that hardware, application software and network software run smoothly.



SYSTEM SOFTWARE

System software is “background software that helps computer manages its own internal resources. It enables the application software to interact with the computer hardware.

Operating systems are programs that coordinate computer resources, provide an interface between user and computer, and run applications. Windows XP and the Mac OS are two of the best known operating system.

TYPES OF OPERATING SYSTEMS (OS)

Operating System	Characteristic
a) Microsoft Windows	- Microsoft Windows is popular as microcomputer operating System. - Microcomputer also known as personal computer

	(PC), desktop (laptop) and handheld devices (palm top). - It's come with variety versions and is designed with Intel and Intel – compatible microprocessor. - Its currently supports NTFS and FAT file systems, along with network file systems shared from other computer. - Latest version is Windows Vista which is upgrading some features from Windows XP.
b) MAC OS (Macintosh Operating system)	- Macintosh was introduced their first operating system and microcomputer in 1984. - Its designed to run with Apple computer. - Its popular with professional graphic designers and desktop publishing.
c) UNIX	- UNIX operating system is stable system and designed to run on minicomputers in network environment. - It is a multi-user operating system which allow user to share the computer system with other users while running several processing activities simultaneously. - Now, it is used in powerful microcomputers and by servers on the Web.
d) LINUX	- LINUX operating system able to do multitask and multithread. - Its free and able to run on many types of computer hardware such as Intel x36, PC, Amiga, Motorola and strong ARM chips. - LINUX distribution support some of ext2, ext3, ext4, Reiser, FS, JFS others. The extension files system based on the original LINUX file system.
e) DOS (Disc Operating System)	- DOS previously common used by microcomputer users. - Example are MS-DOS and PC-DOS

OPERATING SYSTEM'S SHELL

Operating system's shell is the outermost layer in Operating System Design hierarchy. It provides interface to the operating system for the user. It is referred to as the shell because it separates the user from operating system details and presents the operating system simply as a collection of services. The shell accepts user commands or job control statements, interprets these, and creates and controls processes as needed. For example, the interface at this level could be implemented in a graphical manner, providing the user with commands through a list presented as a menu and displaying results using graphical output to a specific device such as a screen.



APPLICATION SOFTWARE

Application software can be described as end user software. These programs can be categorized as either general-purpose or special purpose application. General purpose applications or basic applications are widely used in nearly all users. They are some of programs that need user to know how to use the application. Example of basic application is a browser to navigate, explore and find information on the Internet.

Special-purpose applications or specialized applications include thousands of the programs that are more narrowly focused on specific task and requirement. Some of the best known are to produce a video presentation using images and sound, user must use software like Windows Movie Maker or other software which can produce the video.

Type	Description and Example
a) Word Processing	- Used for word processing such as write memo, letter, report or any document and easy for user to arrange and edit text. - Example: Microsoft Word, Word Perfect and WordStar.
b) Spreadsheet	- Used for tasks that involves numbers and calculation such as accounting, grading student, and prepare graph or charts. - Example : Microsoft Excel, Lotus 123
c) Graphic and Visual	- Used to combine several media elements into a presentation make Presentation and graphic - Example :- Microsoft Power Point, Paint, Adobe Photoshop
d) Project management	- Used to manage task, resources and labour for certain project. - Example: Microsoft Project.
e) Web browser	- Used to access web page or internet - Example: Internet Explorer, Mozilla, Safari.
f) Database Management	- Used to manage and store data - Example: Microsoft Access, Dbase



UTILITIES SOFTWARE

Utilities also known as service programs perform specific tasks related to managing computer resources. Examples of utilities software are anti-virus, internet security and diagnostics system software. There are two major categories of utilities:

OPERATING SYSTEM UTILITY PROGRAMS

Program	Function
a) Disk Defragmenters	To detect scattered computer files fragment and move them to adjacent location to increase efficiency.
b) Disk Checkers	To scan the disk drive and to ensure that the disk drive is free from corrupted files and files that were not saved correctly.
c) Backup	To make a copy of all information stored on a disk, and restore all the files later in an event of accidental deletion.
d) Disk compression	To transparently compress/uncompress the contents of a disk.
e) File Managers	To perform various common managing tasks such as deleting, renaming, cataloguing, moving and copying.

STAND-ALONE UTILITY PROGRAMS

Program	Function
a) Antivirus	To detect virus and protect computer from malicious software
b) Spyware Removers	To detect and delete software, adware and other harmful programs.
c) File Conversion	To convert the contents of a file from one format to another.
d) Device driver	Specialized program designed to allow particular input or output devices to communicate with the rest of the computer system.
e) File Compression	To shrink the size of a file to take up less storage space.
f) CD/DVD Burning	To write various types of objects such as text, graphic, audio and others on a rewritable CD/DVD.



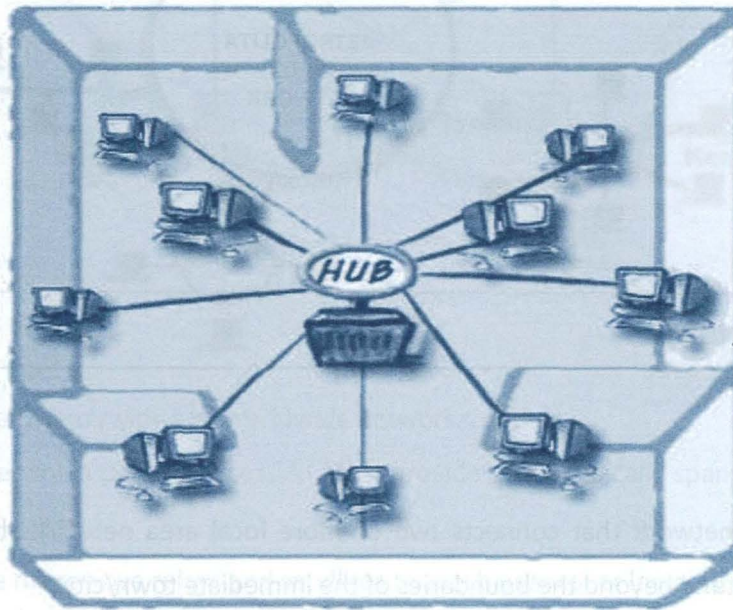
1.5 COMPUTER NETWORK

Computer network is a communication system that connects two or more computers so that they can exchange information and share resources. Network can be set up in different arrangements to suit user requirement. Networks can be distinguishing base on geographical size. There are:

- i. Local Area Networks (LAN)
- ii. Metropolitan Area Networks (MAN)
- iii. Wide Area Networks (WAN)



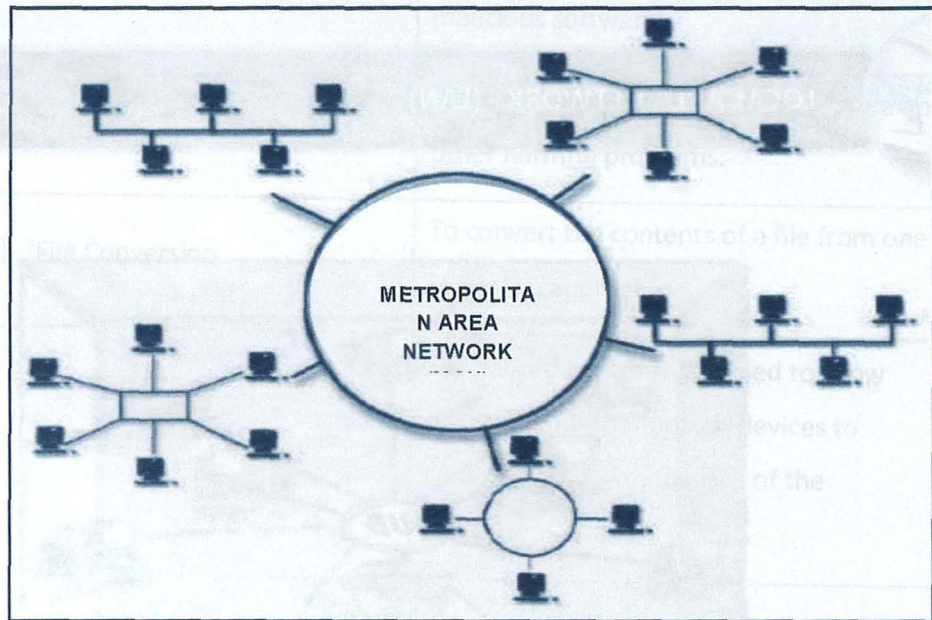
LOCAL AREA NETWORK - (LAN)



- Networks with nodes that are in close physical proximity or within same building.
- Distance is less than a mile and are owned and operated by individual organization.
- LAN usually uses at home, office colleges, universities.
- This arrangement provides some benefit such as:
 - i. **Economy** - User can share costly equipment. Example four computer users can share the laser printer and file server.
 - ii. **Flexibility** - any equipment can be added to the LAN
- Disadvantages of LAN arrangement are:
 - i. Virus spread easily.
 - ii. If the file server have problem, all user will affected.
 - iii. Network are difficult to set up and need maintained by skilled technician.



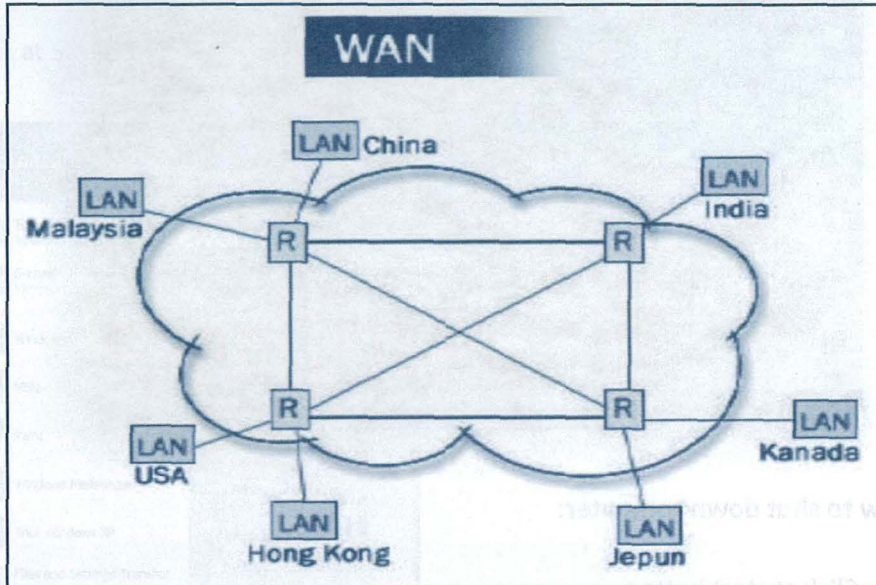
METROPOLITAN AREA NETWORK - (MAN)



- A network that connects two or more local area networks together but does not extend beyond the boundaries of the immediate town/city.
- MAN span distances up to 100 miles and frequent used as links between offices building in a city.
- Routers, switches and hubs are connected to create a metropolitan area network.



WIDE AREA NETWORK - (WAN)



- WAN are countrywide and worldwide networks.
- These networks provide access to MAN providers and typically span distance greater than 100 miles.
- They use microwave relays and satellites to reach users over long distances.
- Example: From Los Angeles to Paris is connected by widest WAN.

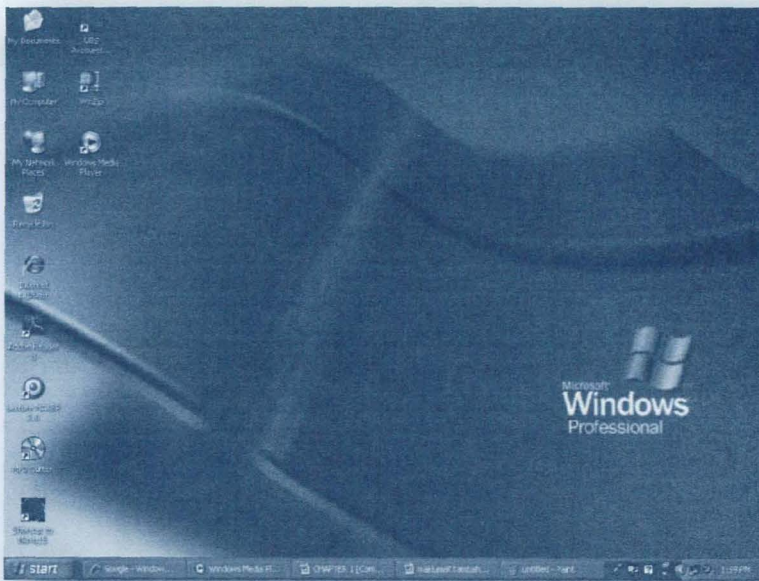


1.6 COMPUTER PROCEDURE

START AND EXIT WINDOWS

How to start up computer:

- Turn on your computer
- Push power button start at in front of your computer CPU.
- The computer takes a few minutes to start up. (Example desktop showing the computer is ready to use).



How to shut down computer:

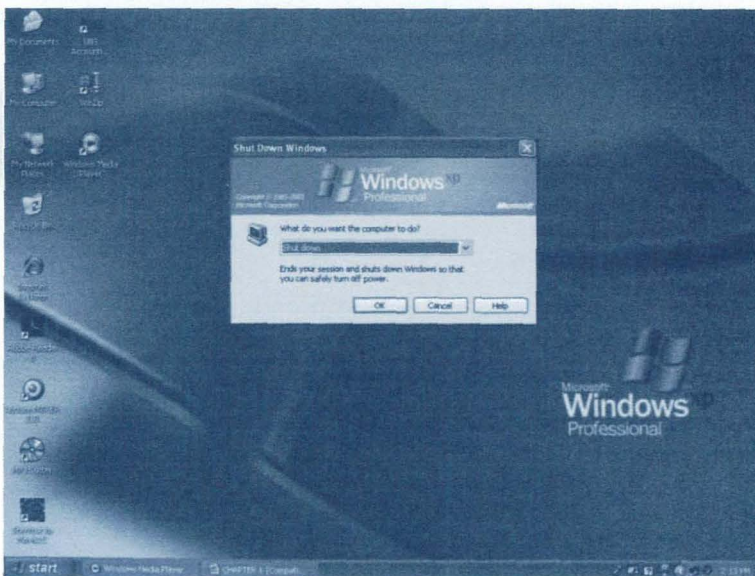
- i. Click at start button



- ii. The start menu will appear and click at this icon

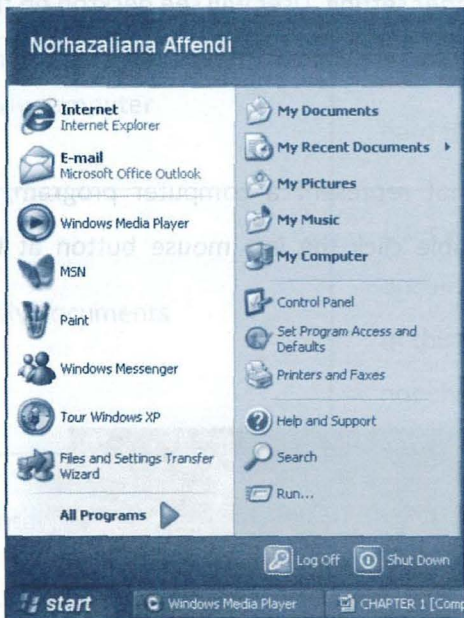


- iii. When dialog box appears, select shut down and click ok.

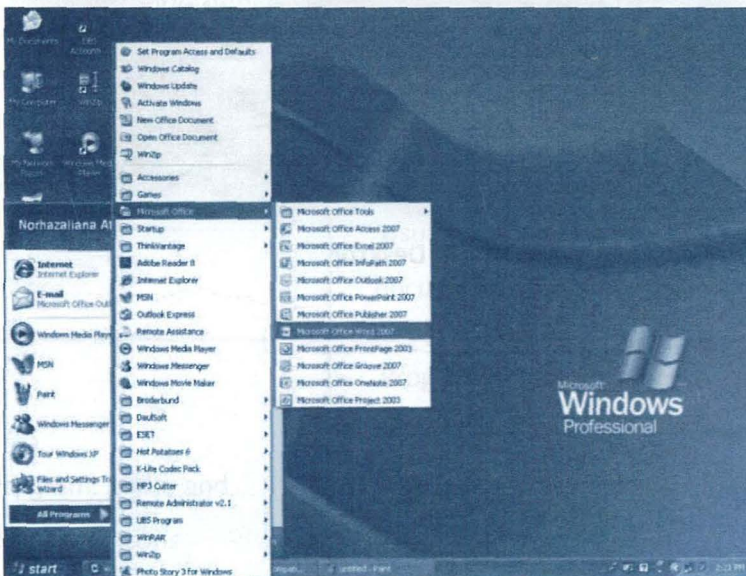


How to start program / application:

- i. Click at Start button, start menu will appear



- ii. Place the cursor at All programs, Microsoft Office and Microsoft Word 2007 and click.

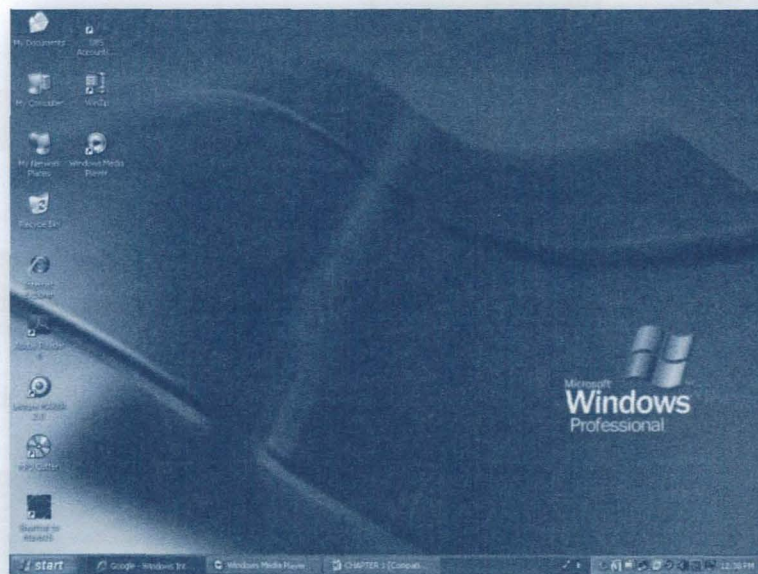




DESKTOP AND ITS ENVIRONMENT

Desktop is user working area. A desktop refers to the main background screen and the background can be changed according to a user's taste and preference by changing the photo, background colour, icon size and other setting. User will see desktop on the first after starting the computer. If the computer shows desktop it means the computer is ready to use.

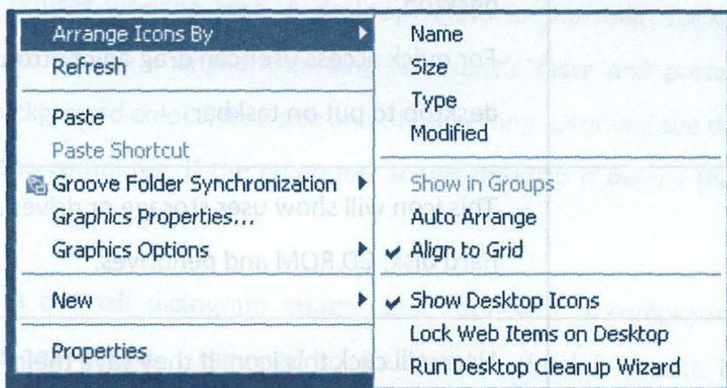
An icon is a small pictogram images that represent a computer program, file, folder, hardware and others. User need to double click the left mouse button at the icon for activating a program, file or folder.



Windows XP Desktop

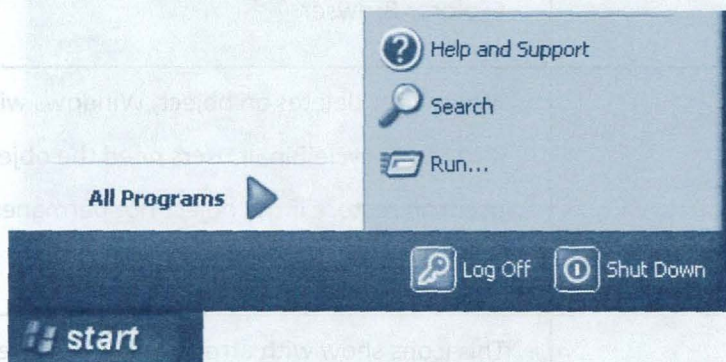
a) Taskbar	- By default, taskbar is located on the bottom edge of the desktop. - User can click and it to other place on the desktop. - For quick access user can drag any button on desktop to put on taskbar.
b) My computer	- This icon will show user storage or drives such as hard disk, CD ROM and pendrives.
c) My documents	- User will click this icon, if they save their document in the hard disk of computer. - In this folder is common place to save file if user not choose location to save their files.
d) Internet Explorer	- This icon is quick access to launch Internet Explorer Browser.
e) Recycle Bin	- When user deletes an object, Windows will sends it to the Recycle Bin. If users need the object back, user can restore if the object not permanently delete.
f) Shortcut icon	- This icons show with arrow on the lower left corner. - Its created by user on desktop for quick access. - Usually the objects represent program, document, printer and others.
g) Program, folder and document icons	- Program, folder and document icons do not have an arrow on the lower left corner. - They represent the actual object and provide direct access to the object. - Usually it's created by user and users decide to save on desktop for quick access.

User can align and arrange desktops icons by right-clicking the desktop space and a menu will appear with submenu shown below. When the cursor is moved to Arrange Icons By and user can choose to arrange icons by name, size, type and date modified.



Arrange Icon by submenu

The Start button is an important of windows XP. By clicking this button will show the start menu as below. Several important items are as following:



Start Menu

ITEMS	FUNCTIONS
Log Off	To log off by a current user
Shut Down	To end the computer session
All Programs	Links to install programs
Run	To manually run executable files
Search	To search for files, documents, photos, or folders in the computer
Help and Support	To help user to find out about certain topics.

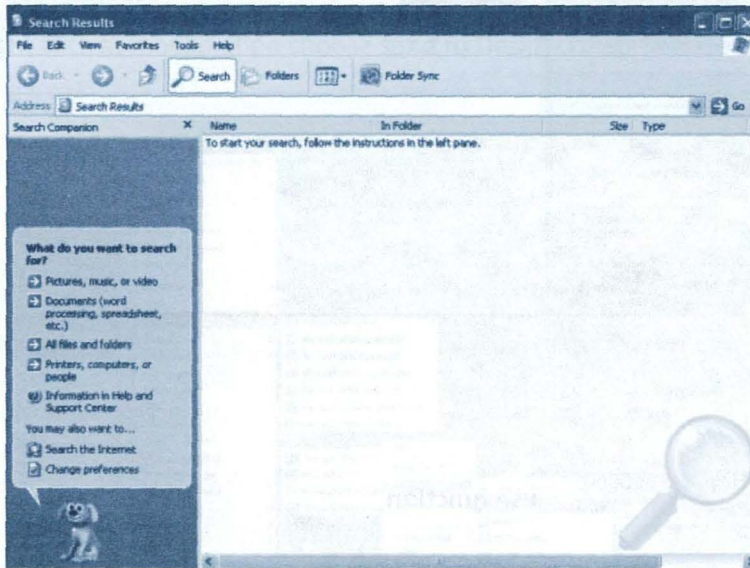
How to use



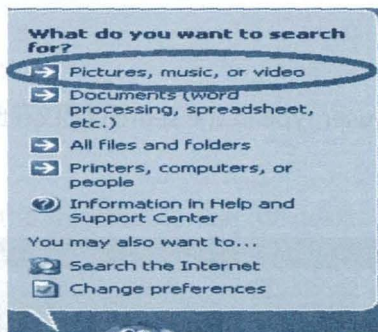
Search

function

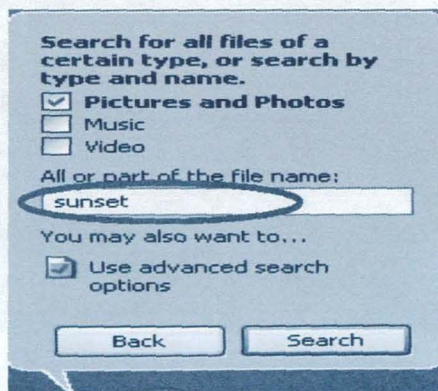
- i. Click at Start button
- ii. Click at Search, the following menu will appear and follow the instructions



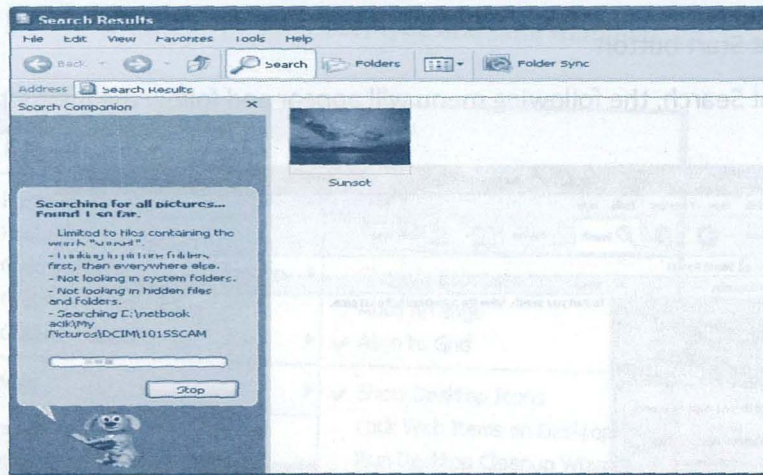
- iii. Click at pictures, music, or video (optional)



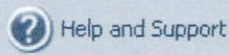
- iv. Enter file name



v. Click Search



How to



Help and Support

use function

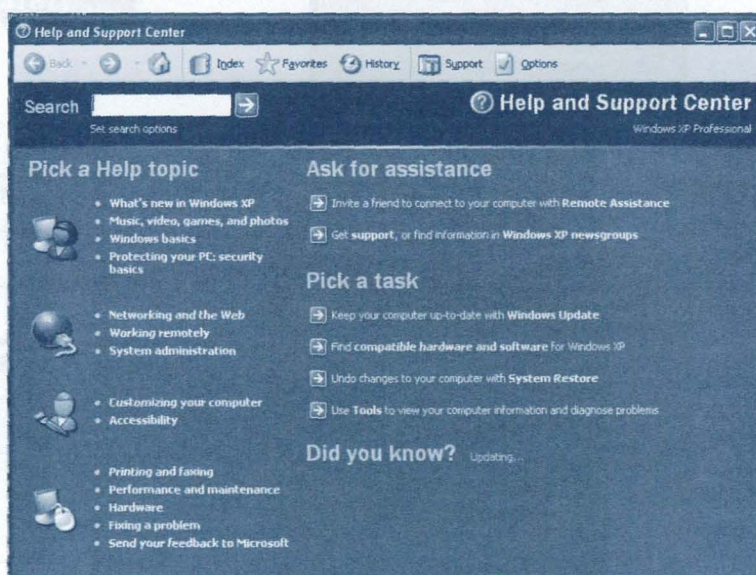
i. Click at start button

ii. Click at



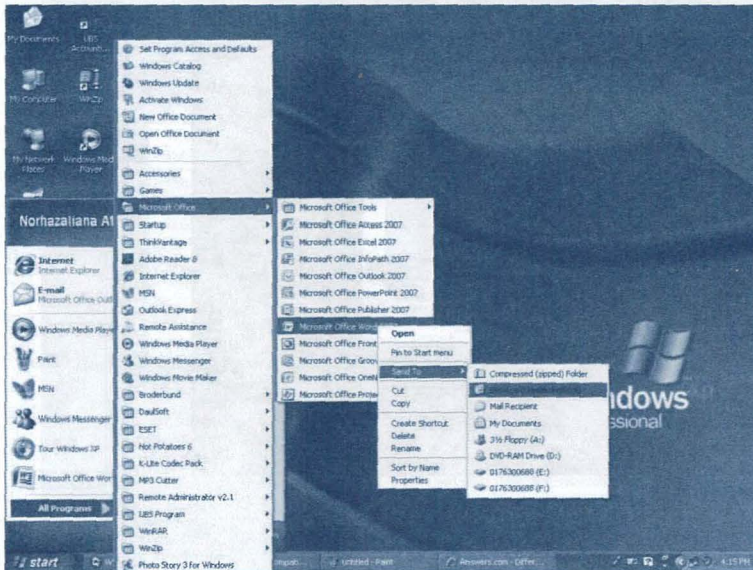
Help and Support

iii. The following menu will appear user type in the search option to search for the required help.



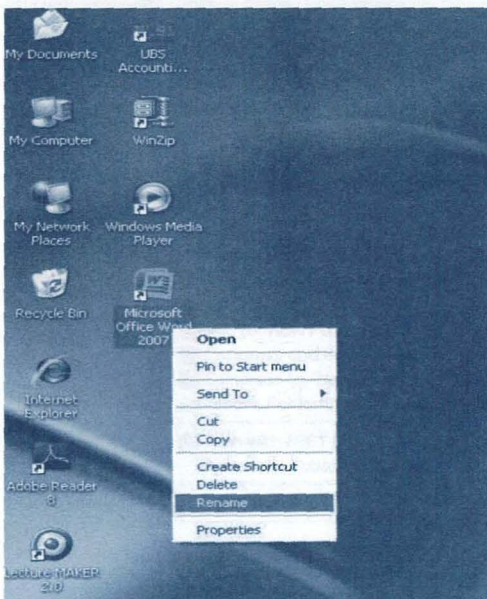
How to create a shortcut to an item located on the start menu:

- i. Click at start button
- ii. Click at all program
- iii. Choose object
- iv. Right click at mouse, then choose send to Desktop (create shortcut)



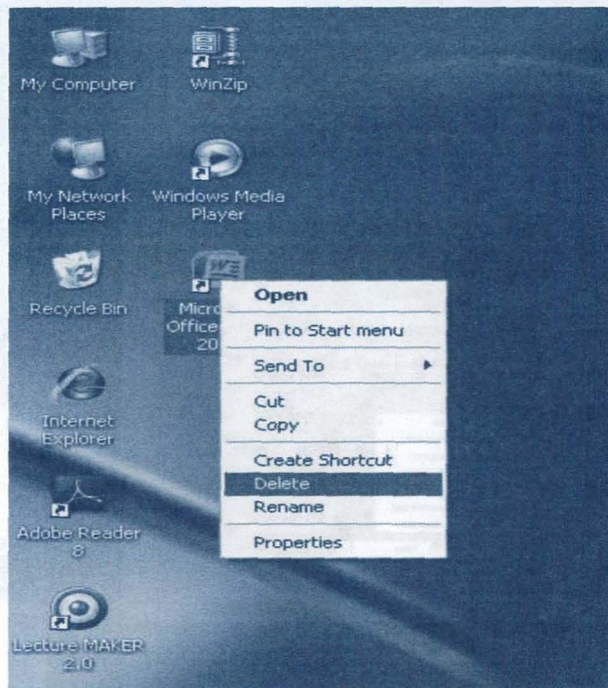
How to rename a shortcut:

- i. Right click at the selected icon on the desktop, choose Rename and type new name.



How to delete a shortcut:

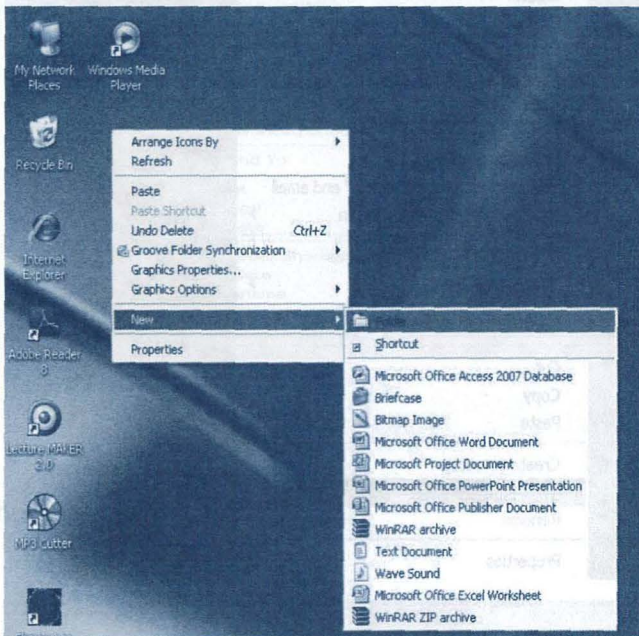
- i. Right click at the selected icon, choose Delete and click at delete shortcut.



DESKTOP AND ITS ENVIRONMENT

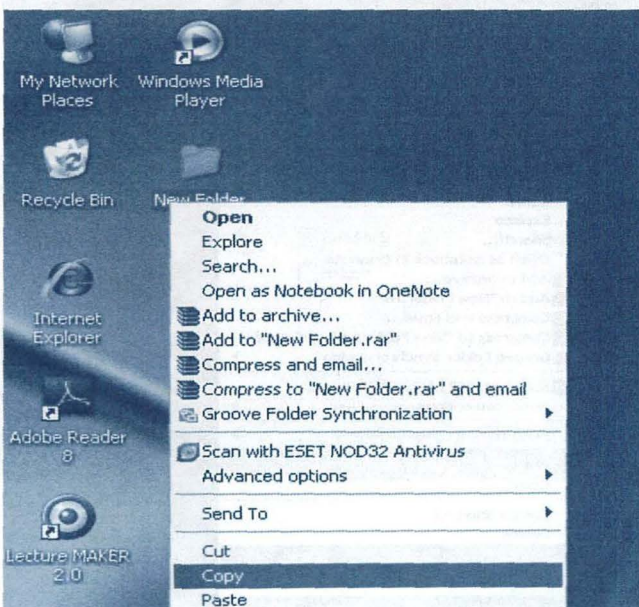
How to create new folder:

- i. Right click on the desktop, choose new folder.



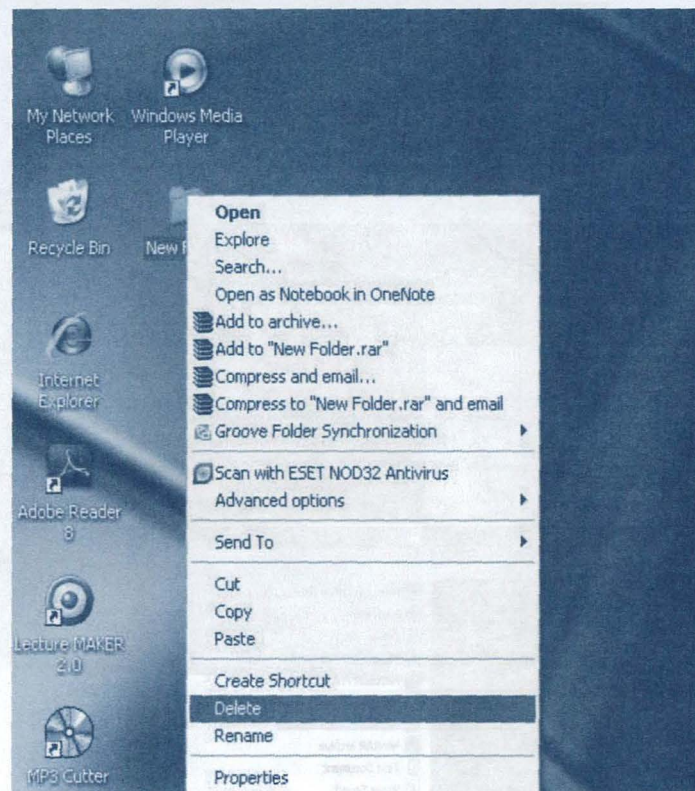
How to copy file / folder:

- i. Right click at the selected file/folder, choose copy and click.

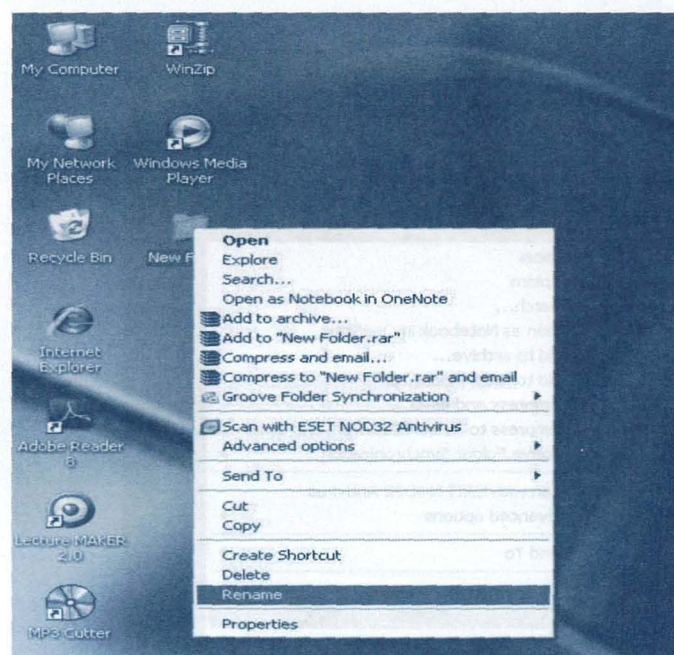


How to delete file / folder:

- i. Right click at the selected file/folder, choose delete and click.

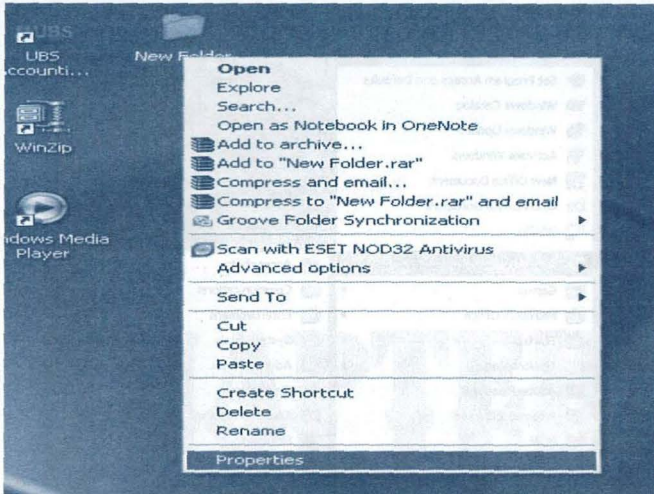
**How to rename file / folder:**

- i. Right click at the selected file/folder, choose rename and click

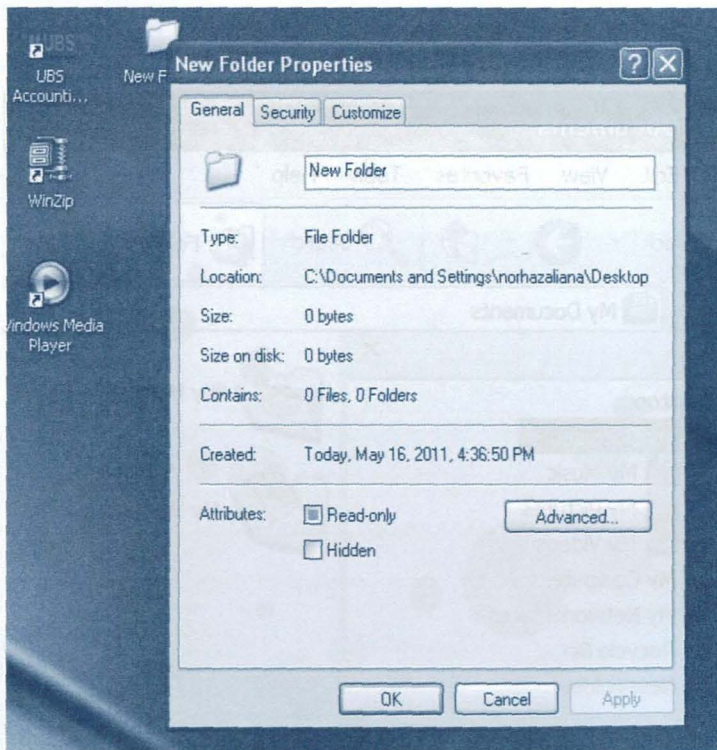


How to open folder/file properties:

- i. Right click at the selected file/folder, choose properties

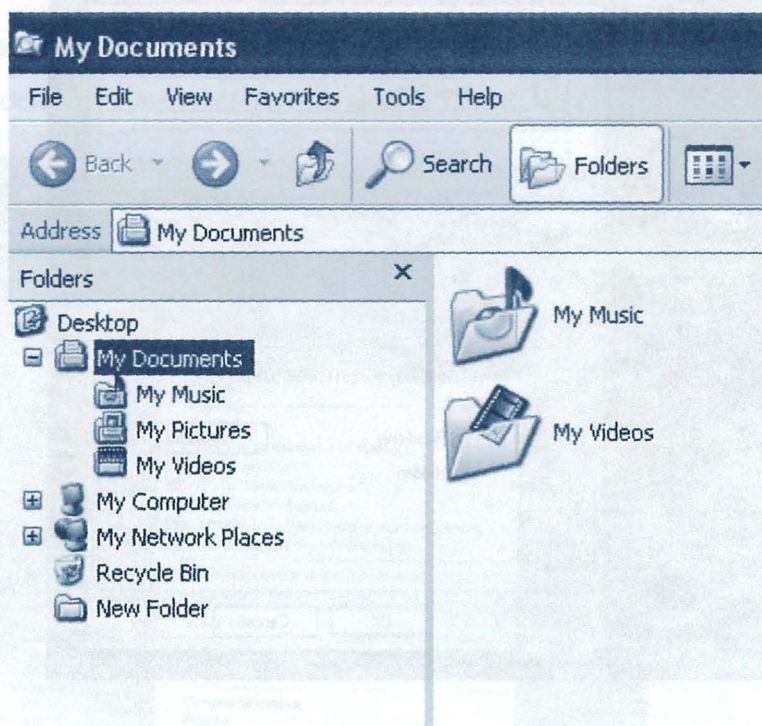
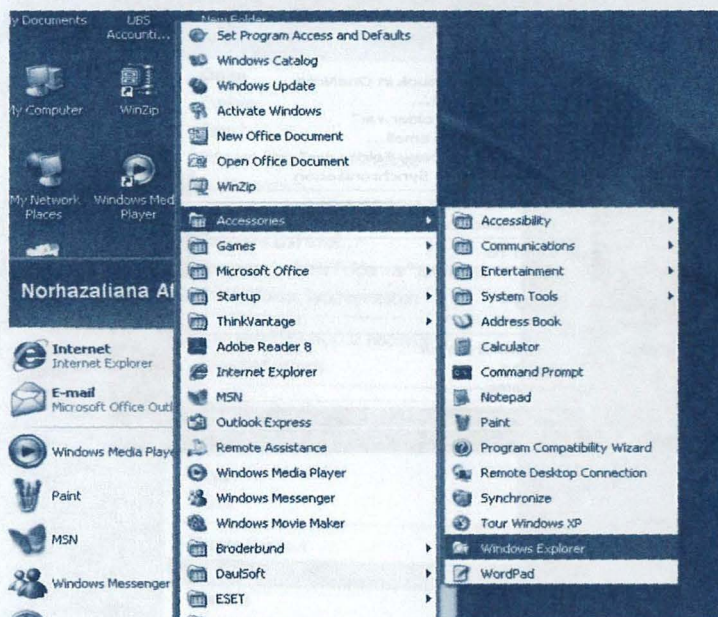


- ii. Choose general tab



How to open Windows Explorer:

- i. All Programs, Accessories, click at Windows Explorer



2.0 INTRODUCTION

CHAPTER 2:

INTERNET

Internet is a global computer network providing a variety of information and communication facilities. It is also defined as a computer network consisting of a worldwide network of computer networks that use the TCP/IP network protocols to facilitate data transmission and exchange.

Internet is a global system of interconnected computer networks that use the standard Internet Suite (TCP/IP) to enable sharing of resources and information. It is a network of networks, consisting of a vast range of information resources, such as the Internet, which are linked by a broad array of network connections.

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2.0 INTRODUCTION

By the turn of the century, information, including access to the Internet, will be the basis for personal, economic, and political advancement. The popular name for the Internet is the information superhighway. Whether you want to find latest news about sports, movies, browse through library catalogues, exchange information with colleagues, or join in a lively political debate, the Internet is the tool that will take you more in front and updated about information that you want to know. Internet also makes board less world for their user. The Internet brings information, expertise, and knowledge on nearly every subject imaginable straight to your computer.



DEFINITION OF INTERNET

Internet is a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols. It is also define as a computer network consisting of a worldwide network of computer networks that use the TCP/IP network protocols to facilitate data transmission and exchange

The Internet is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a *network of networks* that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies. The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support electronic mail.

The Internet is a worldwide collection of computer networks, cooperating with each other to exchange data using a common software standard. Through telephone wires and satellite

links, Internet users can share information in a variety of forms. The size, scope and design of the Internet allow users to:

- Connect easily through ordinary personal computers and local phone numbers;
- Exchange electronic mail (E-mail) with friends and colleagues with accounts on the Internet;
- Post information for others to access, and update it frequently;
- Access multimedia information that includes sound, photographic images and even video; and access diverse perspectives from around the world.



2.1 ETHICS IN USING INTERNET

Internet ethics means acceptable behaviour for using internet. We should be honest, respect the rights and property of others on the internet.

Acceptance

One has to accept that Internet is not a value free-zone. It means World Wide Web is a place where values are considered in the broadest sense so we must take care while shaping content and services and we should recognize that internet is not apart from universal society but it is a primary component of it.

Sensitivity to National and Local cultures

It belongs to all and there is no barrier of national and local cultures. It cannot be subject to one set of values like the local TV channel or the local newspaper we have to accommodate multiplicity of usage.

While using e-Mail and chatting

Internet must be used for communication with family and friends. Avoid chatting with strangers and forwarding e-mails from unknown people /strangers. And we must teach children about risks involved in chatting and forwarding e-mails to strangers.

Pretending to be someone else

We must not use internet to fool others by pretending to be someone else. Hiding our own identity to fool others in the Internet world is a crime and may also be a risk to others. It's our responsibility to teach children the same.

Avoid Bad language

We must not use rude or bad language while using e-Mail, chatting, blogging and social networking, we need to respect their views and should not criticize anyone on the internet and the same should be taught to children.

Hide personal information

We should teach children not to give personal details like home address, phone numbers, interests, passwords. No photographs should be sent to strangers and they should be asked to hide their personal details from strangers because it might be misused and shared with others without their knowledge.

While Downloading

Internet is used to listen and learn about music, It is also used to watch videos and play games We must not use it to download them or share copyrighted material. The same should be taught to children, and they must be aware of the importance of copyrights and issues of copyright.

Supervision

You should know what children are doing on the internet and the sites they visit on the internet and should check with whom they are communicating. Restrict those browsing inappropriate sites. Parental involvement is essential when a child is using the internet in order to make him follow the rules.



2.2 INTERNET SERVICES PROVIDER (ISP)

An ISP (Internet service provider) is a company that provides individuals and other companies' access to the Internet and other related services such as Web site building and virtual hosting. An ISP has the equipment and the telecommunication line access required to have a point-of-presence on the Internet for the geographic area served. The larger ISPs have their own high-speed leased lines so that they are less dependent on the telecommunication providers and can provide better service to their customers. Among the largest national and regional ISPs are AT&T WorldNet, IBM Global Network, MCI, Netcom, UUNet, and PSINet.

ISPs also include regional providers such as New England's NEARNet and the San Francisco Bay area BARNet. They also include thousands of local providers. In addition, Internet users can also get access through online service providers (OSP) such as America Online and CompuServe.

An ISP is also sometimes referred to as an IAP (Internet access provider). ISP is sometimes used as an abbreviation for *independent service provider* to distinguish a service provider that is an independent, separate company from a telephone company.



2.3 SOCIAL NETWORKING SITES

A social networking service is an online service, platform, or site that focuses on building and reflecting of social networks or social relations among people, e.g., who share interests and/or activities. A social network service essentially consists of a representation of each user (often a profile), his/her social links, and a variety of additional services. Most social network services are web based and provide means for users to interact over the internet, such as e-mail and instant messaging. Online community services are sometimes considered as a social network service, though in a broader sense, social network service usually means

an individual-centered service whereas online community services are group-centered. Social networking sites allow users to share ideas, activities, events, and interests within their individual networks.

The example of social network site is:

- Facebook [<http://www.facebook.com/>]
- Twitter [<http://twitter.com/>]
- MySpace [<http://www.myspace.com/>]
- Friendster [<http://www.friendster.com/>]
- hi5 [<http://hi5.com/friend/displayHomePage.do>]



2.4 PURPOSE OF USING INTERNET

It has many advantages and used for many purposes.

Communication

The foremost target of internet has always been the communication. And internet has excelled beyond the expectations. Still; innovations are going on to make it faster, more reliable. By the advent of computer's Internet, our earth has reduced and has attained the form of a global village. Now we can communicate in a fraction of second with a person who is sitting in the other part of the world. Today for better communication, we can avail the facilities of e-mail; we can chat for hours with our loved ones. There are plenty messenger services in offering.

Information

Information is probably the biggest advantage internet is offering. The Internet is a virtual treasure trove of information. Any kind of information on any topic under the sun is available on the Internet. The search engines like Google, Yahoo is at your service on the Internet. You can almost find any type of data on almost any kind of subject that you are looking for. There is a huge amount of information available on the internet for just about every subject known to man, ranging from government law and services, trade fairs and conferences, market information, new ideas and technical support, the list is endless.

Entertainment

Entertainment is another popular reason why many people prefer to surf the Internet. In fact, media of internet has become quite successful in trapping multifaceted entertainment factor. Downloading games, visiting chat rooms or just surfing the Web are some of the uses people have discovered.

Services

Many services are now provided on the internet such as online banking, job seeking, purchasing tickets for your favourite movies, guidance services on array of topics engulfing the every aspect of life, and hotel reservations. Often these services are not available off-line and can cost you more.

E-Commerce

E-commerce is the concept used for any type of commercial manoeuvring, or business deals that involves the transfer of information across the globe via Internet. It has become a phenomenon associated with any kind of shopping, almost anything. You name it and E-commerce with its giant tentacles engulfing every single product and service will make you available at your door steps.



2.5 INTERNET COMPONENTS

The Internet components most Internet users are familiar with are e-mail, the web, and web access. But if you are considering setting up a web site for your business and/or becoming your own web master there are other Internet components to consider. What follows is a list of all of the most common components of the Internet.

Access - To interact directly with the Internet requires some form of access or connectivity to the Internet.

Chat - IRC (Internet Relay Chat) is used for live discussions on the Internet.

Ecommerce - Taking orders for products and services on the Internet.

E-mail - Exchanging electronic letters, messages, and small files.

FTP - File Transfer Protocol is the most common method of transferring files between computers via the Internet.

Hosting - Making information available to others on the Internet.

Mailing Lists - E-mail messages forwarded to everyone on a special interest list.

Search Engines - These tools are really a part of the World Wide Web and are often used when looking for information because the Web has grown so large and is without any inherent organizational structure.

Telnet - Creation of a dumb terminal session to a host computer in order to run software applications on the host system.

Usenet - Newsgroups for receiving news and sending out announcements.

World Wide Web - This is largest, fastest growing, part of the Internet, the part for which Internet browsers like Netscape's Navigator and Microsoft's Explorer were designed.



TYPES OF BROWSERS

Business is the leading factor fueling the rapid growth of the Web making information, advertising, and product ordering readily available to everyone with Web access.

Although there are many web browsers available and many more are likely to arrive in future, only those which are exciting and user friendly will be able to survive market competition and hold on to a substantial market share.

Internet Explorer

This is the most widely-used web browser by people around the world. It was developed by Microsoft in 1994 and released in 1995 as a supportive package to Microsoft Windows line of operating systems. It is presently known as Windows Internet Explorer, was formerly called Microsoft Internet Explorer (MSIE), and more is commonly known as IE. People have a misconception that browsing the Internet is possible only through Internet Explorer. They are unaware of various web browsers that are available. This simply proves that Internet Explorer is used by the majority. According to statistics, its usage share from 1999 to 2003-04 was around 95%. Since then, there has been a lot of competition in the market, with many software companies coming up with web browsers that challenge IE in their features and usage.

Mozilla Firefox

It is owned by Mozilla Corporation and was the result of experimentation. This browser has gone through many name changes due to name clashes with other products. 'Mozilla Firefox' was officially announced in February 2004. It is the second-most famous browser after Internet Explorer, as there were around 100 million downloads within a year of its release. Until November 2008, 700 million downloads were recorded. Since the release of Firefox, the sale of Internet Explorer has gone down drastically. It has around 22% of the market share at present. It has undergone many updates and version changes that were made to improve usability to the universal users. It supports tabbed browsing that allows the user to open multiple sites in a single window. Session storage is also an important feature

of Firefox, which allows the user to regain access to the open tabs after he has closed the browser window. Apart from these, there are many user-friendly features that Firefox offers.

Safari

This is a web browser from Apple Inc., which is compatible with Mac OS X operating system, Microsoft Windows, and the iPhone OS. Safari was released by Apple in January 2003 as a public beta. As of March 2009, the market share of Safari has gone up to 8.23%. The Safari 4 beta release claims to have many features like VoiceOver Screen Reader, which reads aloud everything that takes place on the screen, with text and web links. It also has features like CSS Canvas, LiveConnect, XML 1.0, and JavaScript support, and Cover Flow. 'Grammar Checking' is an interesting built-in feature, which performs a grammar check on the typed text and gives suggestions to correct your sentence if wrong. If you need to fill an online form with your personal information, AutoFill is a feature that automatically does that for you, with the help of information that is stored in your address book or Outlook.

Opera

This web browser was developed by Opera Software in 1996. It is a well-known browser that is mainly used in Internet-activated mobile phones, PDAs, and smartphones. Opera Mini and Opera Mobile are the browsers used in PDAs and smartphones. It is compatible with many operating systems such as Solaris, Linux, Mac OS X, and Microsoft Windows. Opera 9.64 which is the latest version provides an e-mail client known as the Opera Mail. The company claims that Opera is the fastest browser in the world. It also has some common functions like zoom and fit-to-width, content blocking, tabs and sessions download manager with BitTorrent, and mouse gestures.

Google Chrome

This web browser was developed by Google. Its beta and commercial versions were released in September 2008 for Microsoft Windows. It has soon become the fourth-most widely used web browser with a market share of 1.23%. The browser versions for Mac OS X are under development. The browser options are very similar to that of Safari, the settings location are similar to Internet Explorer 7, and the window design is based on Windows Vista.

Based on the web <http://internet-browser-review.toptenreviews.com/>, here are the top five internet browsers on 2011.

1. Firefox
2. Google Chrome
3. Internet Explorer
4. Opera
5. Safari



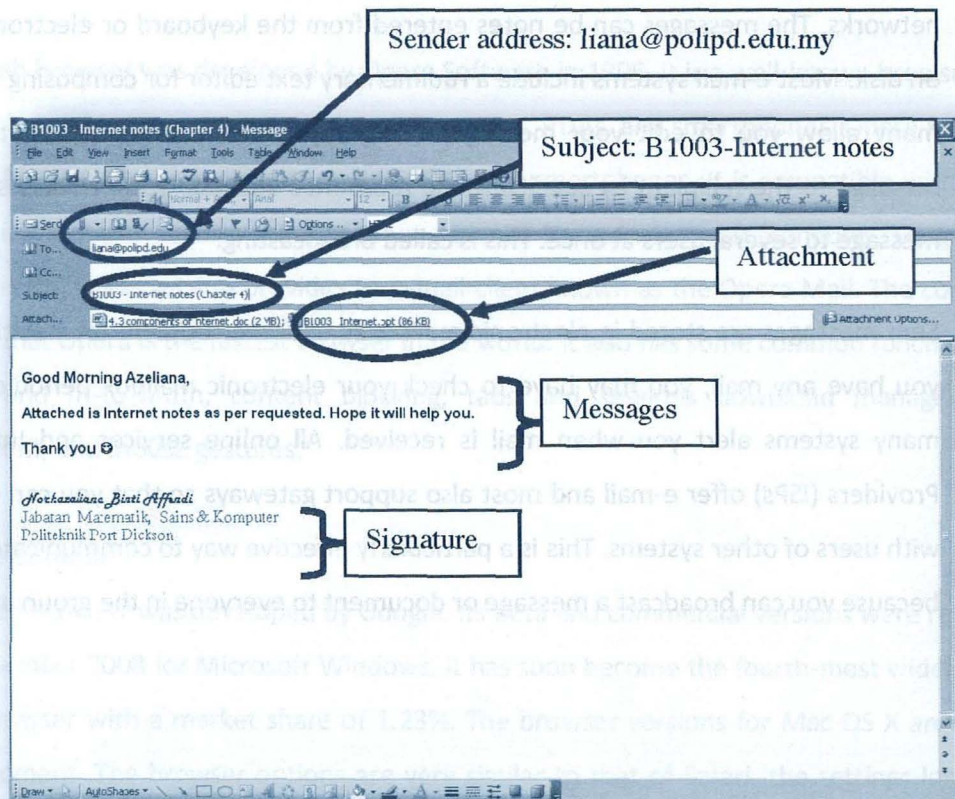
E-MAIL

Email is short for *electronic mail*, the transmission of messages over communications networks. The messages can be notes entered from the keyboard or electronic files stored on disk. Most e-mail systems include a rudimentary text editor for composing messages, but many allow you to edit your messages using any editor you want. You then send the message to the recipient by specifying the recipient's address. You can also send the same message to several users at once. This is called broadcasting.

Sent messages are stored in electronic mailboxes until the recipient fetches them. To see if you have any mail, you may have to check your electronic mailbox periodically, although many systems alert you when mail is received. All online services and Internet Service Providers (ISPs) offer e-mail and most also support gateways so that you can exchange mail with users of other systems. This is a particularly effective way to communicate with a group because you can broadcast a message or document to everyone in the group at once.

Basic elements in e-mail are:

- **Address** – Addresses of the persons sending, receiving and optionally anyone else who is to receive copy. E-mail addresses have two basic parts. The first part is user's name and the second part is the domain name which includes the domain code. This address will become as username, user also need to have password while register their e-mail address. For example liana@polipd.edu.my, *liana* is the user name, server providing e-mail service for the user is *polipd.edu*. The domain code is indicates that the provider is and educational institution.
- **Subject** – A one-line description, used to present the topic of the message, Subject lines are displayed when a person checks his or her mailbox.
- **Attachments** – Many e-mail programs allow user to attach files such as documents and worksheets. If a message has an attachment, the file name appears on the attachment line.



Basic element of e-mail



FILE TRANSFER PROTOCOL (FTP) CLIENTS

File Transfer Protocol (FTP), a standard Internet protocol, is the simplest way to exchange files between computers on the Internet. Like the Hypertext Transfer Protocol (HTTP), which transfers displayable Web pages and related files, and the Simple Mail Transfer Protocol (SMTP), which transfers e-mail, FTP is an application protocol that uses the Internet's TCP/IP protocols. FTP is built on client-server architecture and utilizes separate control and data connections between the client and server. FTP users may authenticate themselves using a clear-text sign-in protocol but can connect anonymously if the server is configured to allow it.

FTP is commonly used to transfer Web page files from their creator to the computer that acts as their server for everyone on the Internet. It's also commonly used to download programs and other files to your computer from other servers.



REALLY SIMPLE SYNDICATION (RSS)

RSS (most commonly expanded as Really Simple Syndication) is a family of web feed formats used to publish frequently updated works—such as blog entries, news headlines, audio, and video—in a standardized format. An RSS document (which is called a "feed", "web feed", or "channel") includes full or summarized text, plus metadata such as publishing dates and authorship. Web feeds benefit publishers by letting them syndicate content automatically. They benefit readers who want to subscribe to timely updates from favoured websites or to aggregate feeds from many sites into one place. RSS feeds can be read using software called an "RSS reader", "feed reader", or "aggregator", which can be web-based, desktop-based, or mobile-device-based. A standardized XML file format allows the information to be published once and viewed by many different programs. The user subscribes to a feed by entering into the reader the feed's URI or by clicking a feed icon in a web browser that initiates the subscription process. The RSS reader checks the user's subscribed feeds regularly for new work, downloads any updates that it finds, and provides a user interface to monitor and read

the feeds. RSS allows users to avoid manually inspecting all of the websites they are interested in, and instead subscribe to websites such that all new content is pushed onto their browsers when it becomes available.

RSS formats are specified using XML, a generic specification for the creation of data formats. Although RSS formats have evolved from as early as March 1999, it was between 2005 and 2006 when RSS gained widespread use and Firefox's (")" icon was adopted by Internet Explorer.



2.6 UTILIZE BROWSER

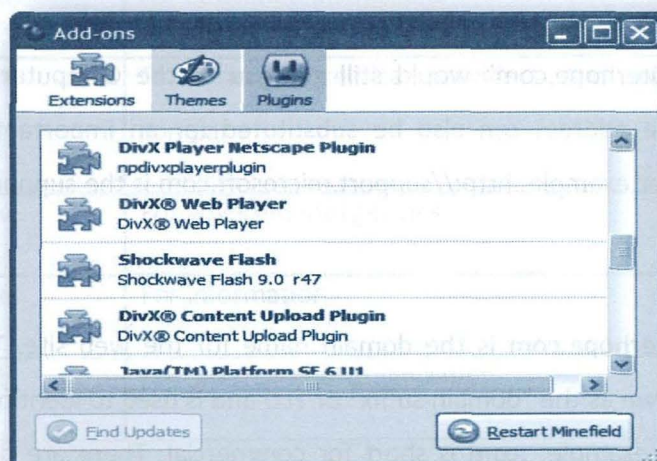
Browsers are programs that provide access to Web resources. This software connects user to remote computers, opens and transfers files, displays text and images and provides in one tool and uncomplicated interface to the Internet and Web documents. User can explore or surf Web by easily moving from Web sites to another through Browser. Some of well known browsers are Internet Explorer, Netscape Navigator and Mozilla Firefox. **Unified Resources Locator (URL)** is connector between browser and resources (users requested Web site). Once browser connected to the Web site, a document file is sent back to user's computer. This document file content of **Hypertext Markup Language (HTML)** commands. The Browser interprets the HTML commands and displays the document as **Web page**.

Web utilities are specialized utility programs that make using the Internet and Web easier and safer. Some of these utilities are internet services for connecting and sharing resources over the internet.

- **Telnet** is an Internet Standard that allow user to connect to another computer (host) on the Internet and to log on to that computer as if the user were on a terminal in the next room. There are hundreds of computers on the Internet that user can connect to. Some allow free access and others charges fee for user usage.

- **Plug-ins** are programs that are automatically loaded and operate as a part of user's browser. Many Web sites require user to have one or more plug-ins to fully experience their content. Some widely used plug-ins include:
 - Acrobat Reader from Adobe – use for viewing and printing a variety of standard forms and other documents saved in a special format called PDF.
 - Windows Media Player from Microsoft – for playing audio files and video files.
 - RealPlayer from RealNetworks – for playing audio files and video files.
 - Shockwave from Macromedia – for playing Web based games and viewing concerts and dynamic animations.

Some of these utilities are included in many of today's browsers and operating systems. Other must be installed before they can be used by your browser.



Plug-ins

- **Filters** need to block access at selected sites. The Internet is an interesting and multifaceted arena. But one of those facets is dark and seamy one. Parents need to concern about children roaming unrestricted across the Internet. Filter programs allow parents as well as organizations to block out selected sites and set times limit. Besides that these programs can monitor use and generate reports detailing about total time spent on the Internet and time spent at individual Web Site, chat groups and newsgroup. Three example filters software are CyberPatrol, Cybersitter and Net Nanny.



UNIFORM RESOURCE LOCATOR (URL)

In computing, a **Uniform Resource Locator (URL)** is a Uniform Resource Identifier (URI) that specifies where an identified resource is available and the mechanism for retrieving it. In popular usage and in many technical documents and verbal discussions it is often incorrectly used as a synonym for URI. The best-known example of the use of URLs is for the *addresses* of web pages on the World Wide Web, such as <http://www.computerhope.com/index.htm>

The **http://** stands for HyperText Transfer Protocol and enables the browser to know what protocol it is going to use to access the information specified in the domain.

Next, **www** stands for World Wide Web, is used to distinguish the content. This portion of the URL is not required and many times can be left out. For example, typing "<http://computerhope.com>" would still get you to the Computer Hope web page. This portion of the address can also be substituted for an important subpage known as a subdomain. For example, <http://support.microsoft.com> is the support section of Microsoft's page.

Next, **computerhope.com** is the domain name for the web site. The last portion of the domain is known as the "domain suffix" or TLD and is used to identify the type or location of web site. For example, **.com** is short for commercial. There are dozens of other domain suffixes available.

Finally, **index.htm** is the actual web page on the domain. If the page you're viewing is several directories deep it may have additional directories listed in-between the domain and the page. For example, the page you're currently viewing has a URL of <http://www.computerhope.com/jargon/u/url.htm>, this page is in the jargon/u/ directory.

An analysis of the format and structure of the URL www.parlimen.gov.my/eng-index.php can be explained as follows:

- Protocol: http
- Computer host name: www

- Second level domain name: parlimen
- Top level domain name: gov
- Country Internet code: my
- File name: eng-index.php

The following table lists several top level domain names used in the internet:

Top Level Domain	Explanation
.com	For commercial company entities (worldwide)
.org	Usually used by non-profit organizations and organizations of a non-commercial
.edu	For education institutions
.net	For internet service providers and infrastructure company
.gov	For government agencies
.info	For information
.int	For international organization

The following table lists the internet country codes for several countries:

Country	Internet Code
Malaysia	my
Singapore	sg
Indonesia	id
Thailand	th



INTERNET PROTOCOL (IP)

The Internet Protocol (IP) is the method or protocol by which data is sent from one computer to another on the Internet. Each computer (known as a host) on the Internet has at least one IP address that uniquely identifies it from all other computers on the Internet. When you send or receive data (for example, an e-mail note or a Web page), the message gets divided into little chunks called packets. Each of these packets contains both the sender's Internet address and the receiver's address. Any packet is sent first to a gateway computer that understands a small part of the Internet. The gateway computer reads the destination address and forwards the packet to an adjacent gateway that in turn reads the destination address and so forth across the Internet until one gateway recognizes the packet as belonging to a computer within its immediate neighborhood or domain. That gateway then forwards the packet directly to the computer whose address is specified.

Because a message is divided into a number of packets, each packet can, if necessary, be sent by a different route across the Internet. Packets can arrive in a different order than the order they were sent in. The Internet Protocol just delivers them. It's up to another protocol, the Transmission Control Protocol (TCP) to put them back in the right order.

The most widely used version of IP today is Internet Protocol Version 4 (IPv4). However, IP Version 6 (IPv6) is also beginning to be supported. IPv6 provides for much longer addresses and therefore for the possibility of many more Internet users. IPv6 includes the capabilities of IPv4 and any server that can support IPv6 packets can also support IPv4 packets.

Country	Country
For example, the page you're currently viewing has a URL of	Malaysia
http://www.ccsa.gov.my/	http://www.ccsa.gov.my/
sg	sg
An analysis of the format of the URL www.ccsa.gov.my/sg is as follows:	sg
Protocol: http	Protocol: http
Host: www.ccsa.gov.my	Host: www.ccsa.gov.my
Path: /sg	Path: /sg

SEARCH ENGINES

A **web search engine** is designed to search for information on the World Wide Web and FTP servers. The search results are generally presented in a list of results and are often called *hits*. The information may consist of web pages, images, information and other types of files. Some search engines also mine data available in databases or open directories. Unlike web directories, which are maintained by human editors, search engines operate algorithmically or are a mixture of algorithmic and human input. To find information user go to a search service's web site and use the search engine. User need to enter keyword search based on information that user want to search. The search engine will compare user entry against its database and returns a list of hits or sites that contain the information requested. Example is shown below.

The following table lists several top search engine used in the internet:

Search Engines	Website URL
	www.google.com
	www.yahoo.com
	www.bing.com
	www.ask.com
	www.teoma.com

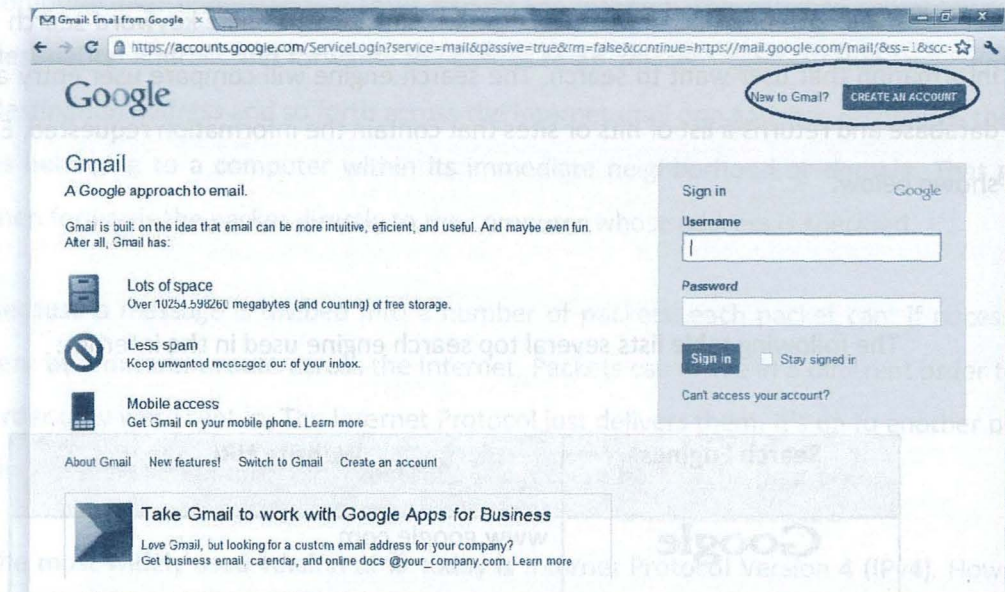


2.7 SIGN UP AN E-MAIL ADDRESS

Below is a simple guide how to sign up an Email through Google.

Step 1:

Open www.gmail.com



Step 2:

Click button *Create an account*

New to Gmail?

CREATE AN ACCOUNT

Step 3:

Fill all the required information. Then click *Next Step*

Create a new Google Account

Your Google Account is more than just Gmail.
Talk, chat, share, schedule, store, organize, collaborate, discover, or create. Use Google products from Gmail to Google+ to YouTube, view your search history, all with one username and password, all backed up all the time and easy to find at (you guessed it) Google.com.

Take it all with you.
A Google Account lets you access all your stuff — Gmail, photos, and more — from any device. Search by taking pictures, or by voice. Get free turn-by-turn navigation, upload your pictures automatically, and soon even buy things with your phone using Google Wallet.

Share a little. Or share a lot.
Share selectively with friends, family (maybe even your boss) on Google+. Start a video hangout with friends, text a group of

Name
Siti Nuradibah Hj Edros

Choose your username
snuradibah.edros@gmail.com

Create a password
[password field]

Confirm your password
[password field]

Birthday
January 01, 1993

Gender
Female

Mobile phone
+60 [phone field]

Your current email address
[email field]

Note: To create an email via Google, you should verify no phone number. Don't worries, Google will not reveal your personal cell phone number. It's just for verification.

Step 4:

Create your profile by clicking *Add Profile Photo*. You also can create you Profile Photo later. Otherwise, just click *Next Step*.

Create your profile

Your profile
Now that you have a Google Account, create your Google profile. It's how you represent yourself publicly on the web, and helps friends and family find each other easily. Your profile also lets you publicly "like" things you love on the web, so you and your friends benefit from each other's impeccable taste — in search results, on sites across the web, even on ads. Your profile is public, and can include as little as your name, or as much as you feel like adding — it's up to you. About profiles.

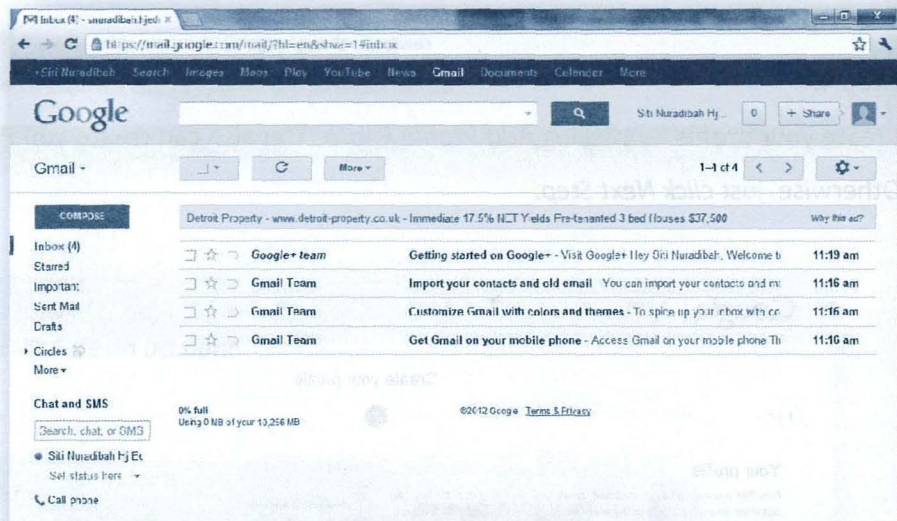
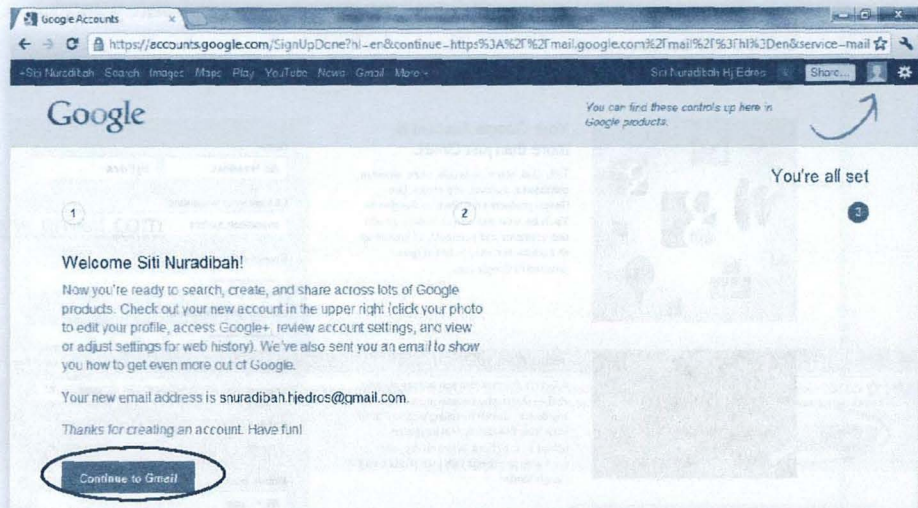
About Google+
Google+ is more than just another site to visit. It's a new way to communicate across all of Google. Whether you're using Maps, Gmail, YouTube, Search, or any other Google product, Google+ makes it easy to share the right things with the right people. About Google+.

How you'll appear
Siti Nuradibah Hj Edros

Your public profile will help your friends recognize you
ADD PROFILE PHOTO Next step

Step 5:

Now you already have an email. Click *Continue to Gmail*.



snuradibah.hjedros@gmail.com



2.8 DESIGN A SIMPLE BLOG

EXAMPLE:

Create a blog about the 'Best Places in Malaysia'. You can build your blog using www.blogger.com or others web page application. The blog must be containing introduction, places that must visit, description of that places and some images. On your web page, include all the function below:

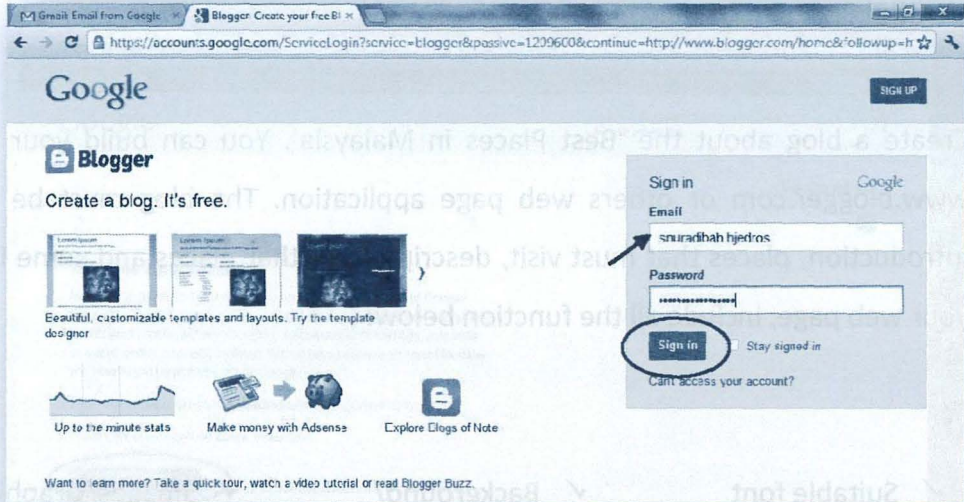
- | | | |
|-----------------|---------------------------|-------------------|
| ✓ Suitable font | ✓ Background/
Template | ✓ Images/Graphics |
| ✓ Table | ✓ Hyperlink | ✓ Upload files |

Below is a simple guide how to create a blog by using Blogspot. You are advised to build your blog more creative and attractive.

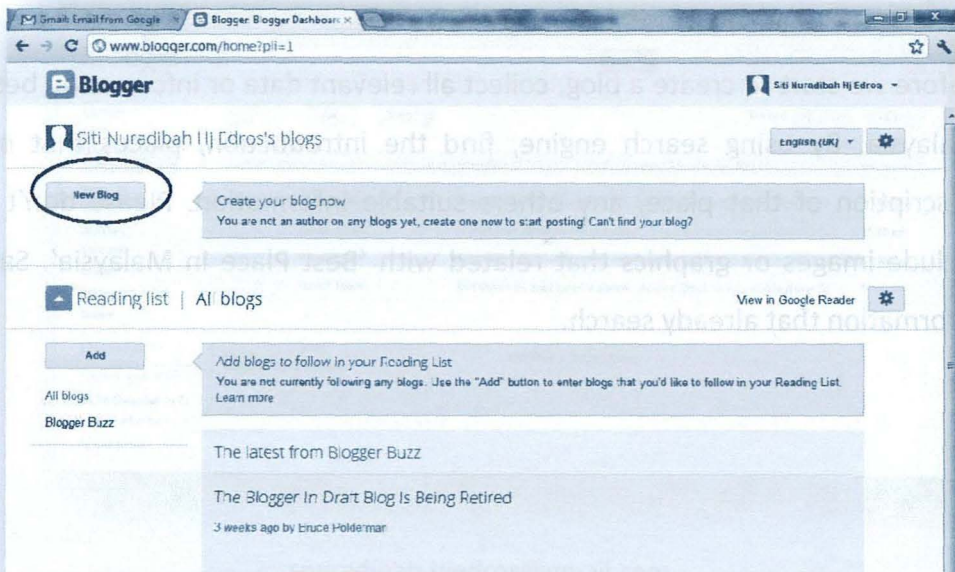
Before we start to create a blog, collect all relevant data or information best place in Malaysia. By using search engine, find the introduction, places that must visit, description of that place, any others suitable information. Please don't forget to include images or graphics that related with 'Best Place in Malaysia'. Save all the information that already search.

Step 1: Getting started and sign in email

Open <http://www.blogger.com>. Then, sign in email (snuradibah.hjedros@gmail.com). Click *Sign in*.

**Step 2: New Blog**

Now, click the button *New Blog* to create a blog.



Step 3: Blog List

Insert the *Title* and *Address*. Then, choose the *Template*. Title is for your blog title. Insert the title that suitable with your blog. For address, you are advised to insert address that easy to remember. You can browse many more templates and customize your blog later. Click *Create blog!*

Blogs List > Create a new blog

Title: Best Places in Malaysia

Address: BestPlaces-Malaysia.blogspot.com ✓
This blog address is available.

Template:

- Awesome Inc.
- Watermark
- Ethereal
- Travel

You can browse many more templates and customise your blog later.

Create blog! Cancel

Title: Best Places in Malaysia

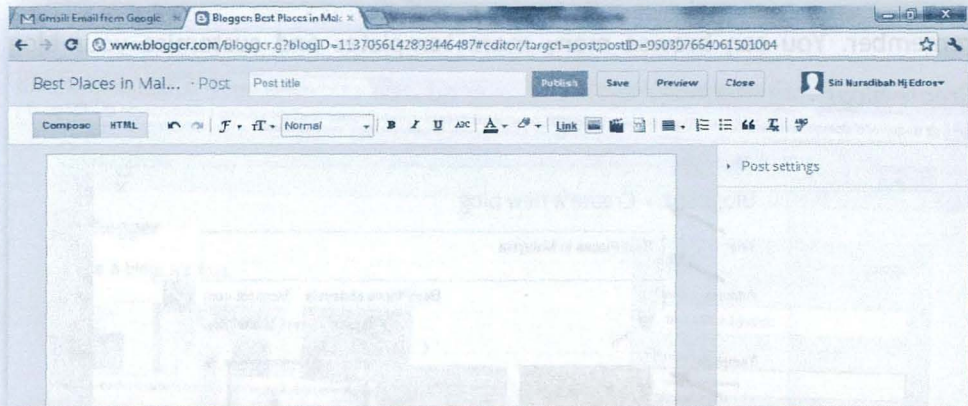
Address: bestplaces-malaysia.blogspot.com

Step 4: New Blog is created. Start Blogging

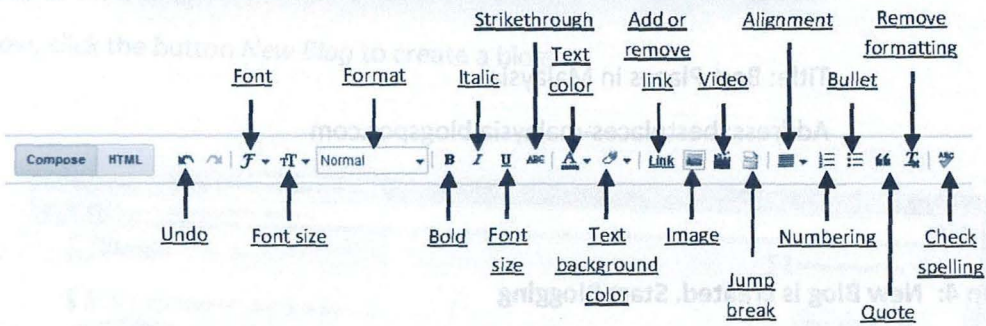
Now, you have a new blog with the title '*Best Places in Malaysia*'. Click *Start posting*.



On a Text Pane, you can edit your font, colour and type of text.



Below is formatting icon:



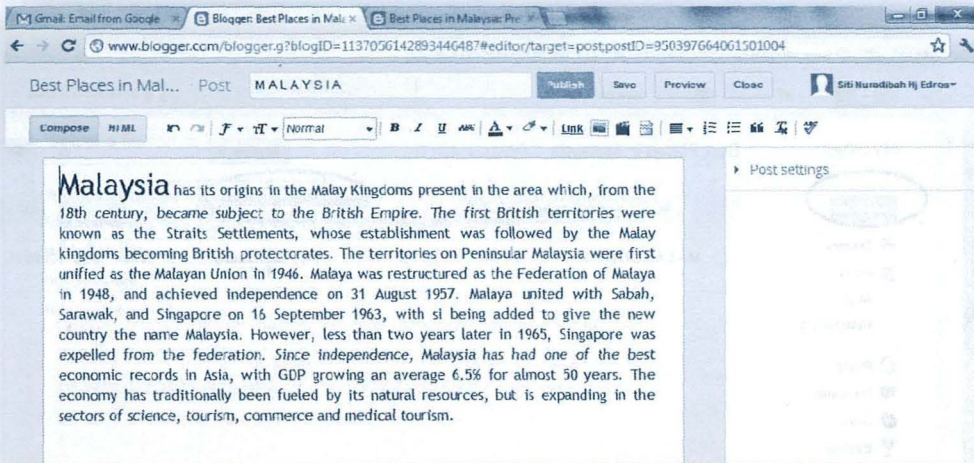
Publish button: For publish your post.

Save button: For save your post as draft.

Preview button: For preview your blog before publish.

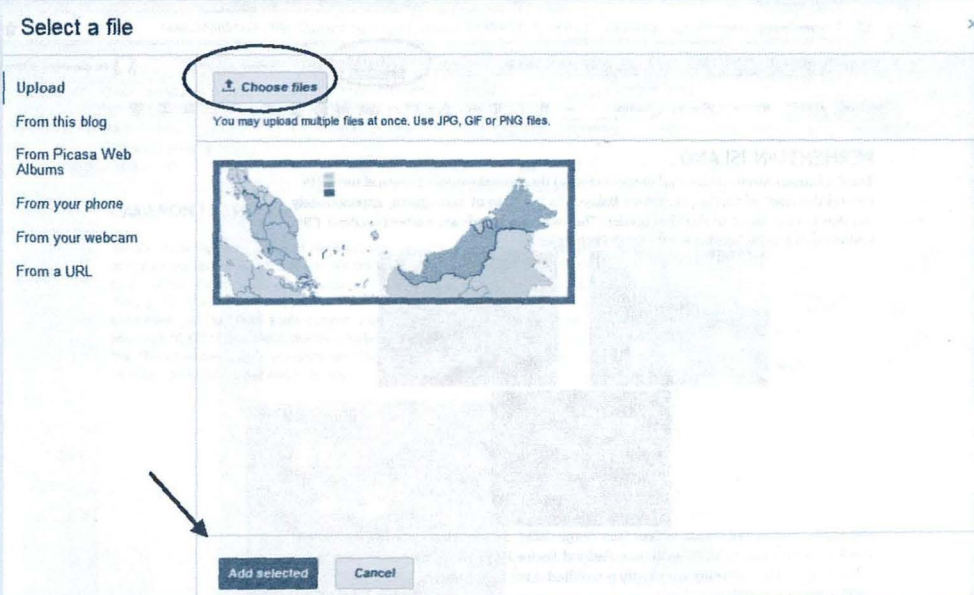
Step 5: Add Text

Now you can start blogging. Insert Post title and fill in information about Malaysia.



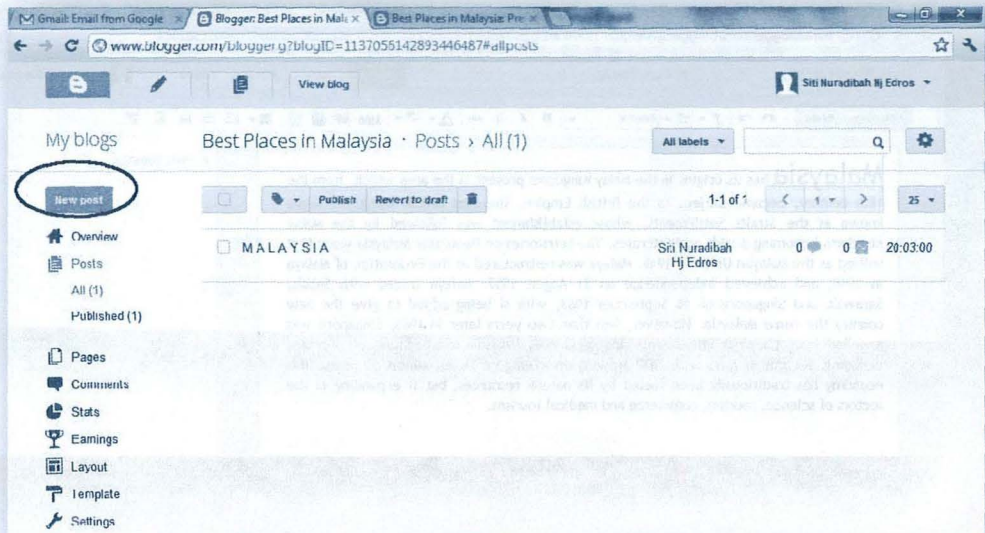
Step 6: Insert Image

On a same post, click *Insert image* icon. Then click *Choose file*. Once done select the image, click button *Add selected*.

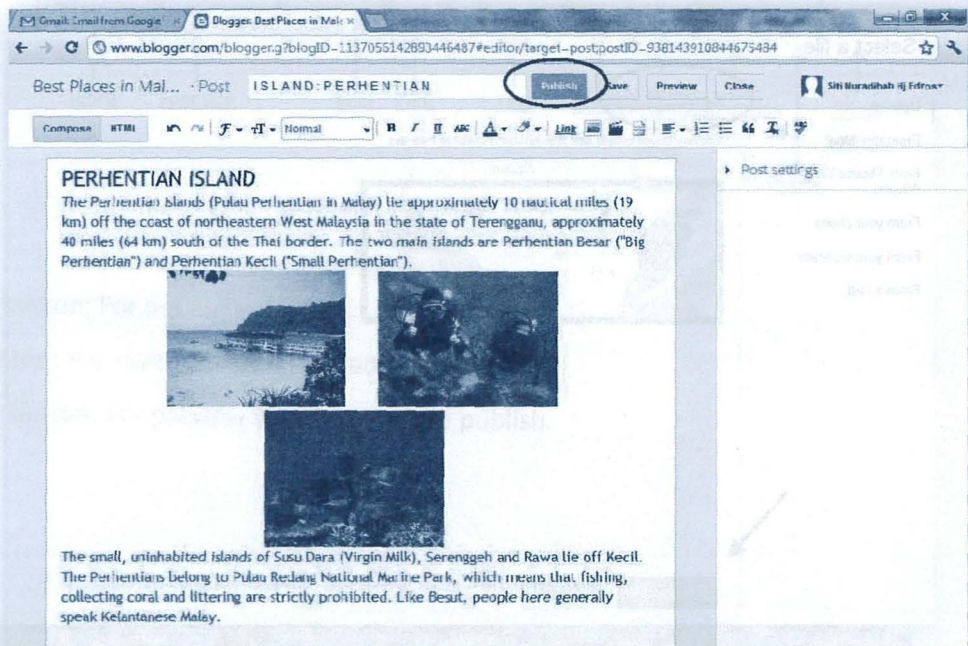


Step 7: Add new post

Click button *New post*. Insert Post title, text and images.

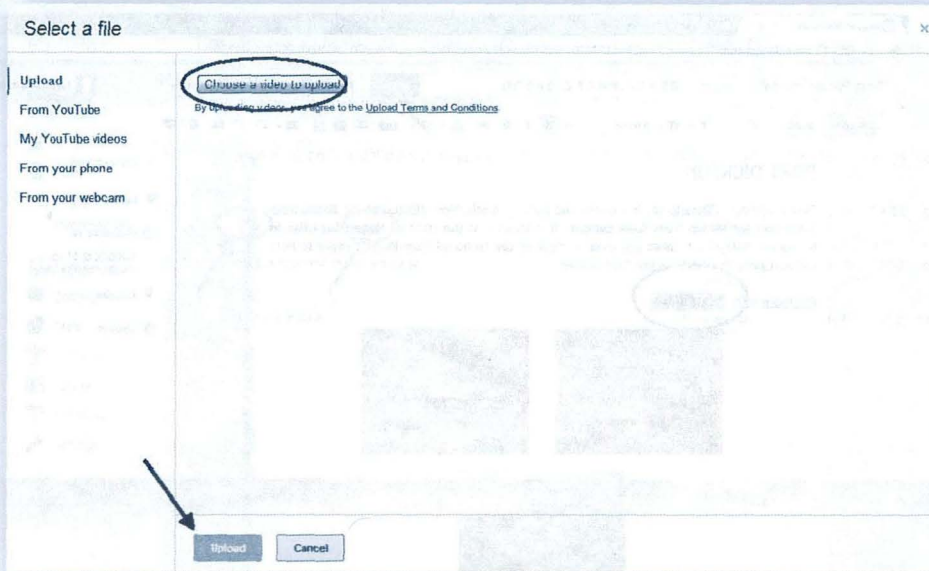


Insert Post title, text and images. Then click *Publish*. You can add more post to make your blog more information.

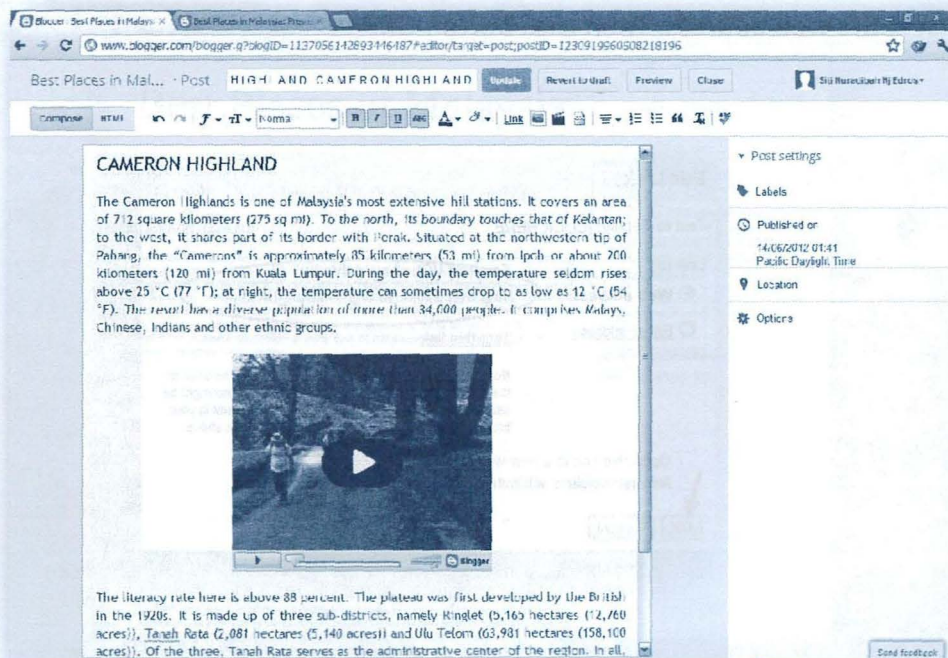


Step 8: Insert Video

Click *Insert a video* icon, then click the button *Choose a video to upload*, and click *upload* button.

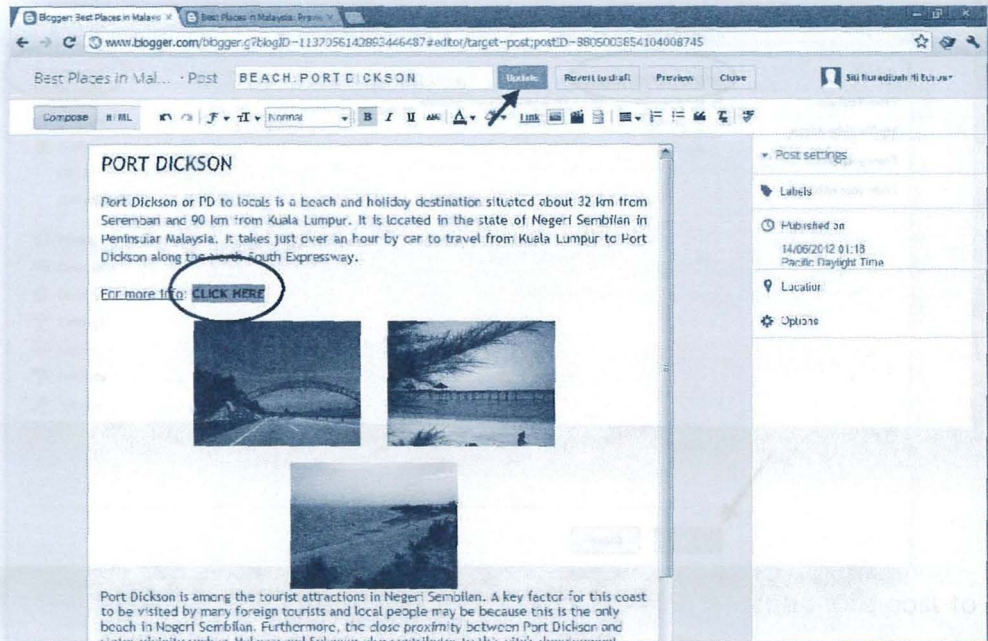


Wait until the video fully upload.

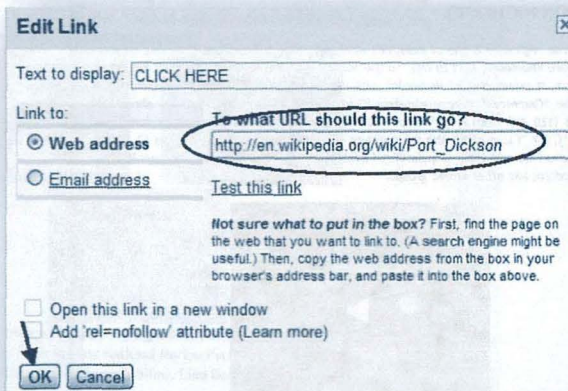


Step 9: Insert Hyperlink

Highlight the text *CLICK HERE*, click icon *Add or remove link*.

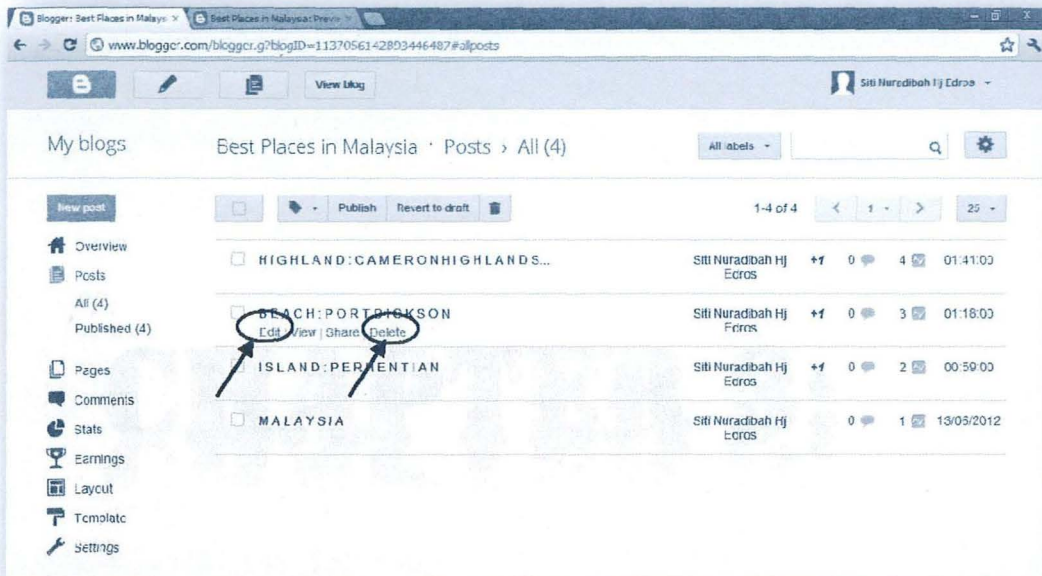


Insert the web address. Then click button **OK**.



Step 10: Edit / Delete post

Point to the posts, then click button *Edit* or *Delete*.



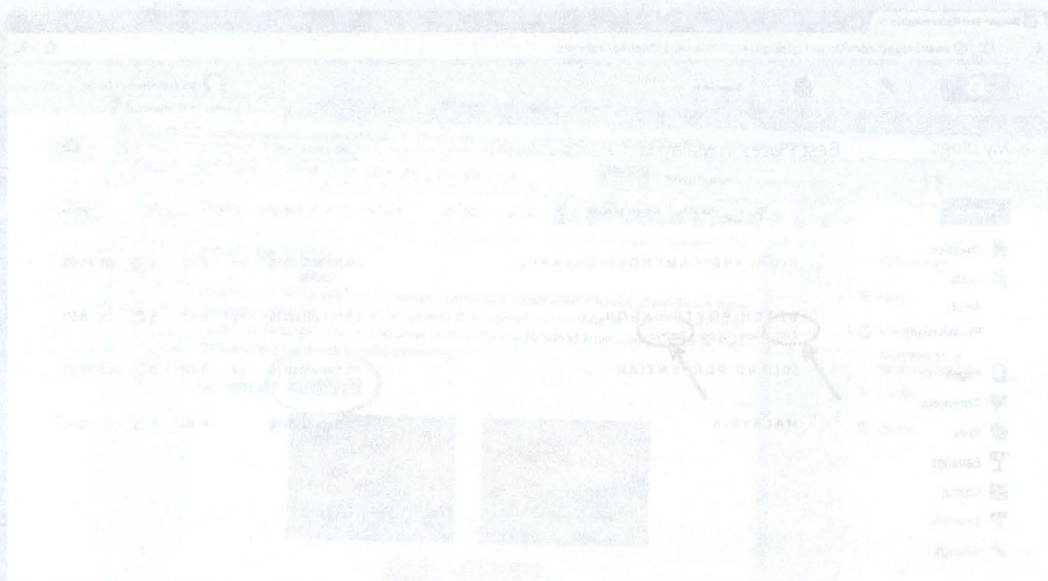
Click Preview button to preview on internet explorer. Or just type *bestplaces-malaysia.blogspot.com* to view your blog.



Step 10: Edit / Delete post

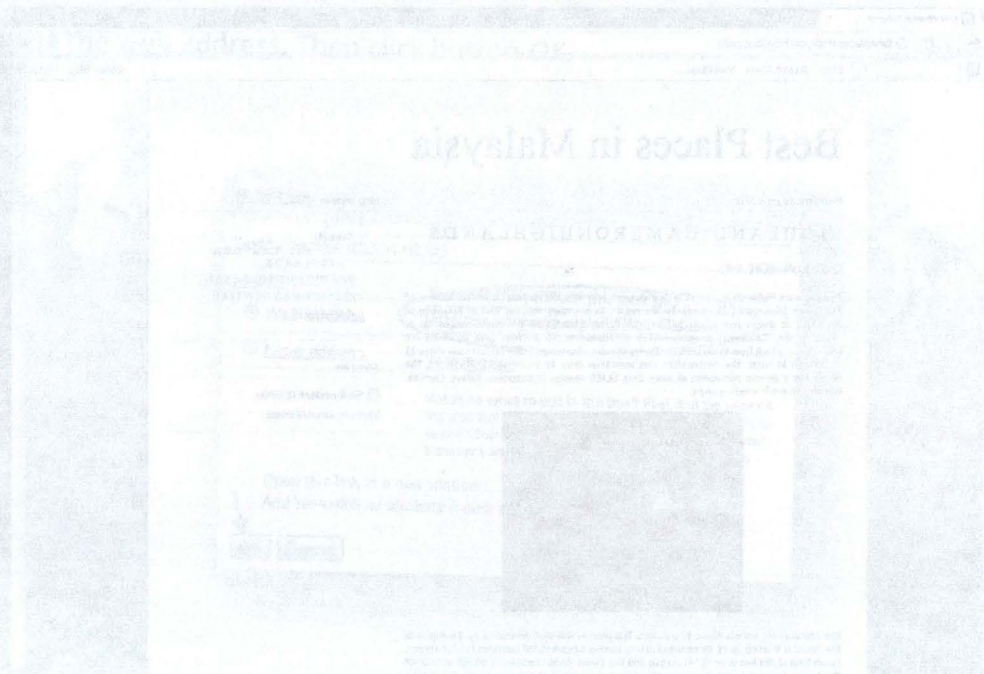
Step 10: Edit / Delete post

Point to the posts, then click button Edit or Delete.
Highlight the **CLICK HERE** text and highlight



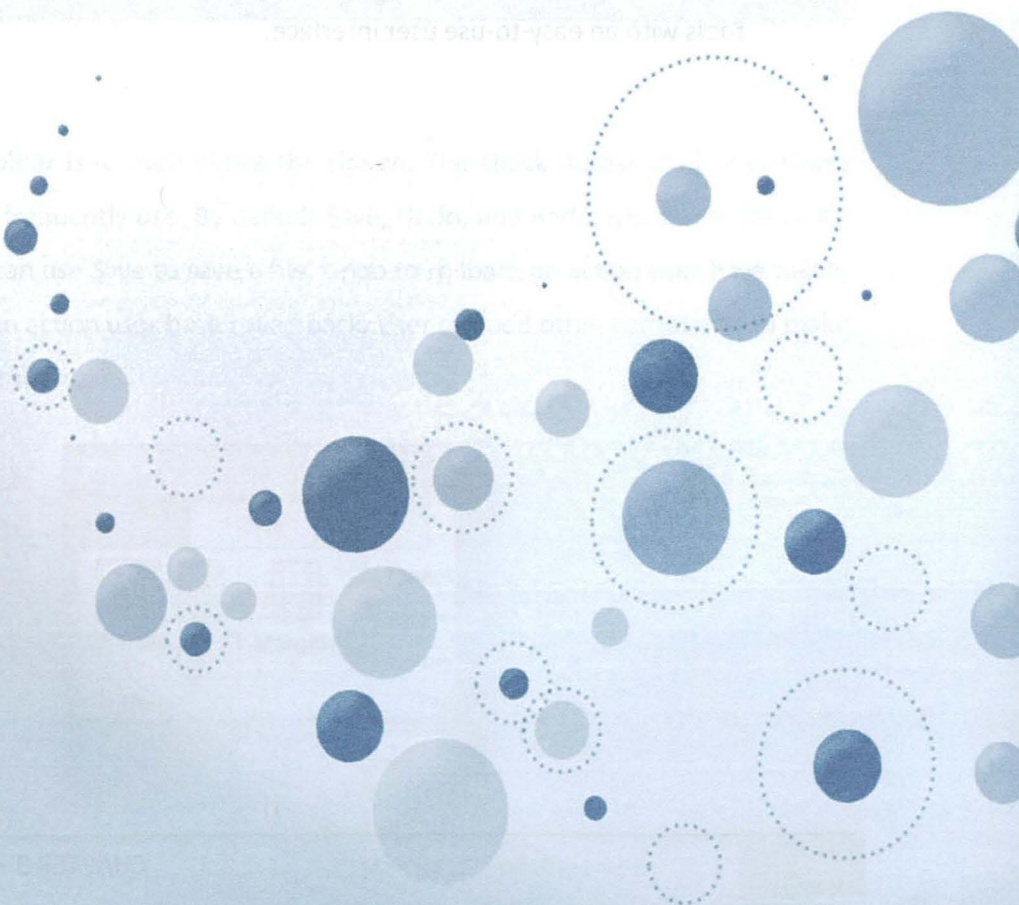
Click Preview button to preview on internet explorer. Or just type bestplaces

to preview on internet explorer.



CHAPTER 3:

WORD PROCESSOR





3.0 INTRODUCTION

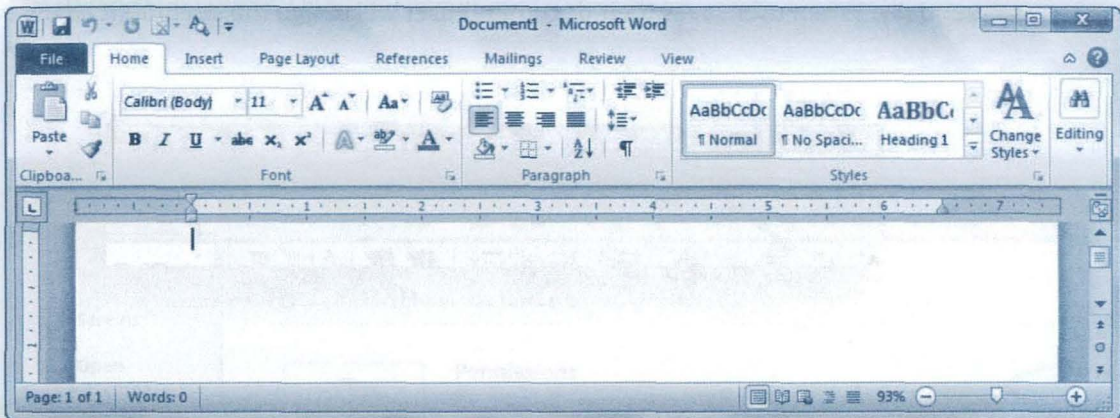
Using a computer to create, edit, and print documents. Of all computer applications, word processing is the most common. To perform word processing, user need a computer, a special program called a *word processor*, and a printer. A word processor enables user to create a document, store it electronically on a disk, display it on a screen, modify it by entering commands and characters from the keyboard, and print it on a printer.

The great advantage of word processing over using a typewriter is that user can make changes without retyping the entire document. If user makes a typing mistake, they simply back up the cursor and correct the mistake. If user wants to delete a paragraph, they simply remove it, without leaving a trace. It is equally easy to insert a word, sentence, or paragraph in the middle of a document. Word processors also make it easy to move sections of text from one place to another within a document, or between documents. When user has made all the changes they want, they can send the file to a printer to get a *hardcopy*.

Microsoft Office Word 2010 is a word processor. It is also a powerful authoring program that allows user to create and share documents by combining a comprehensive set of writing tools with an easy-to-use user interface.

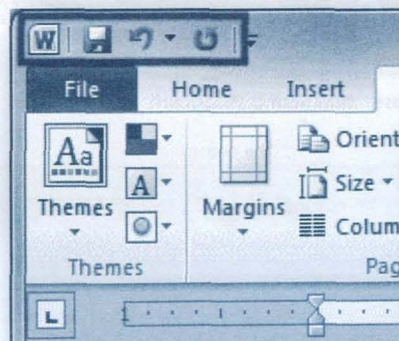
3.1 GETTING STARTED

To begin this lesson, open Microsoft Word 2010. The Microsoft Word window appears and the screen looks similar to the one shown here.



THE QUICK ACCESS TOOLBAR

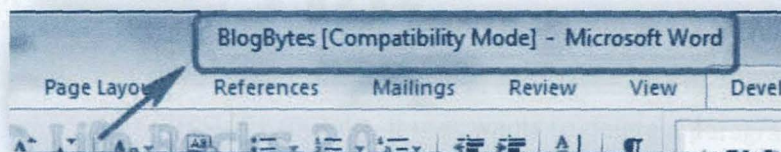
The **Quick Access toolbar** is located above the ribbon. The Quick Access toolbar provides user with access that frequently use. By default Save, Undo, and Redo appear on the Quick Access toolbar. User can use Save to save a file, Undo to rollback an action user have taken, and Redo to reapply an action user have rolled back. User can add other commands to make it more convenient for them.





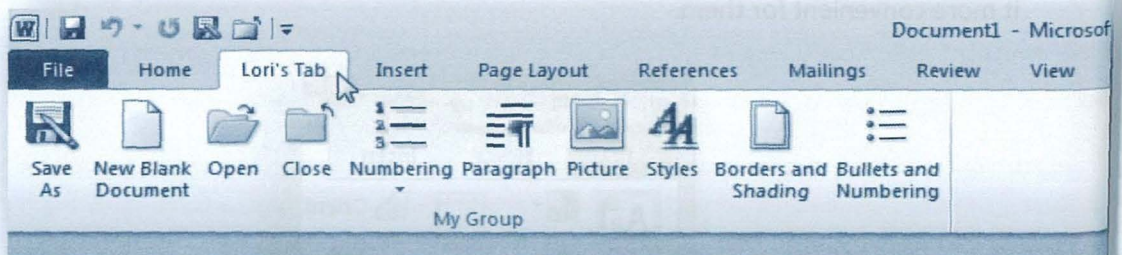
THE TITLE BAR

Next to the Quick Access toolbar is the **Title bar**. The Title bar displays the title of the document on which user is currently working. Word names the first new document user open is Document1. As user open additional new documents, Word names them sequentially. When user saves their document, user will assign the document a new name.



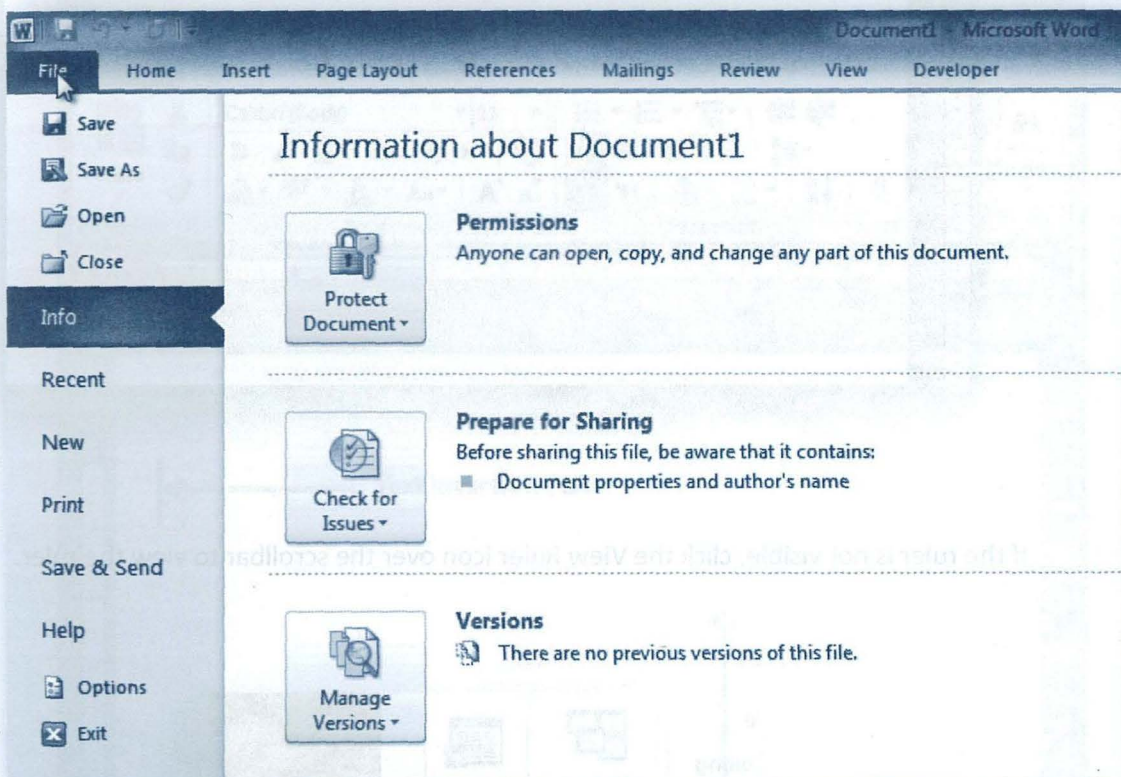
THE RIBBON

User will use commands to tell Microsoft Word what to do. Since in Microsoft Word 2007, user uses the tabbed Ribbon system to issue commands. The Ribbon is located near the top of the screen, below the Quick Access toolbar. At the top of the Ribbon are multiple tabs; each with several groups of commands and user can add their own tabs that contain their favourite commands. User can click buttons to issue commands or to access menus and dialog boxes.



**BACKSTAGE VIEW**

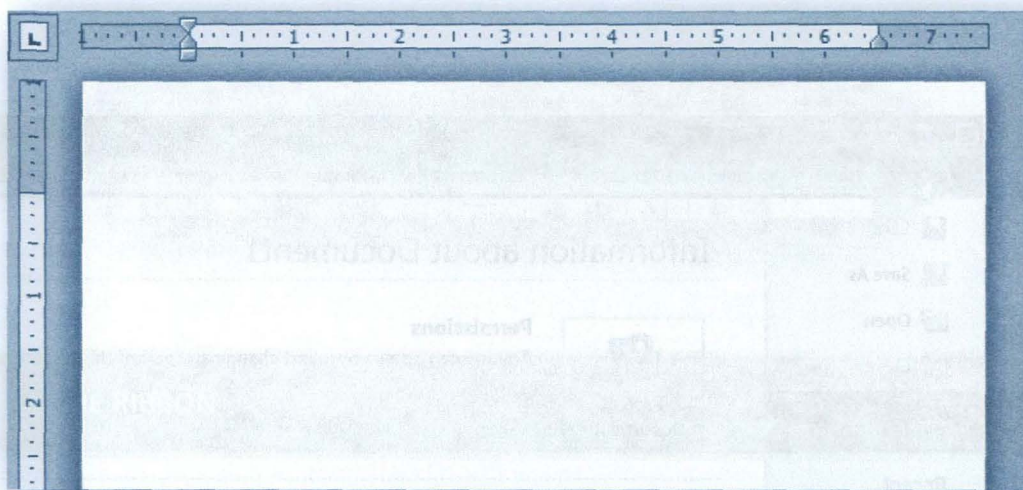
Backstage view gives user various options for saving, opening a file, printing or sharing your document. It is similar to the Office Button Menu from Microsoft Office Word 2007. However, instead of just a menu, it is a full page view which makes it easier to work with. To get to Backstage View, click the File tab.



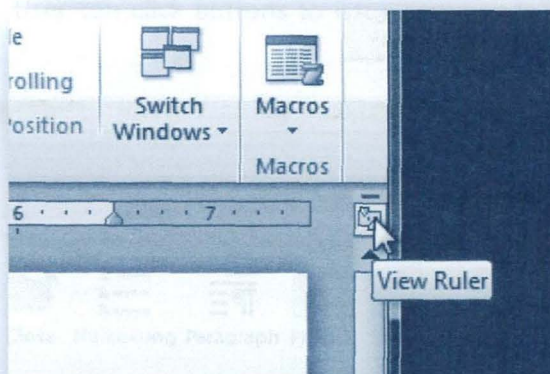


THE RULER

The ruler is found below the Ribbon and to the left of a document. User can use the ruler to adjust their document with precision. User also can hide the Ruler to free up more screen space.



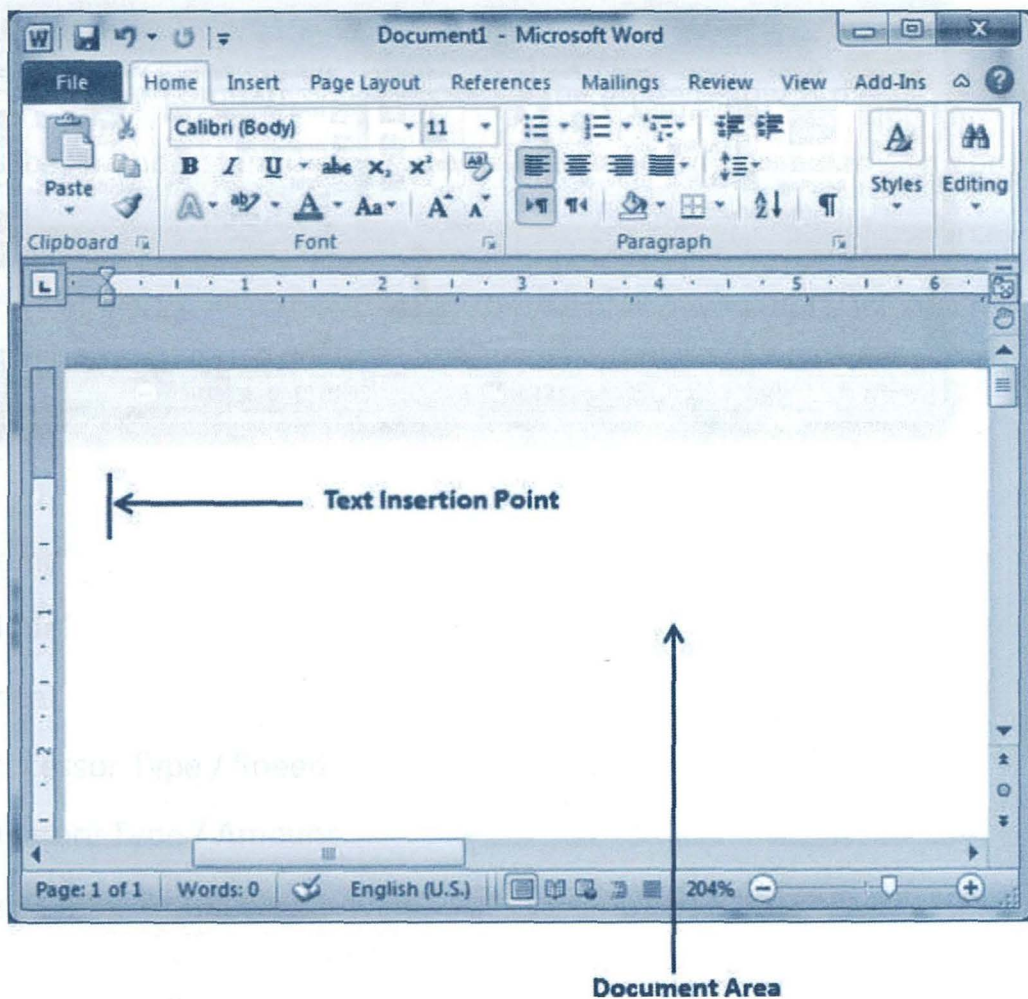
If the ruler is not visible, click the View Ruler icon over the scrollbar to view the ruler.





THE TEXT AREA

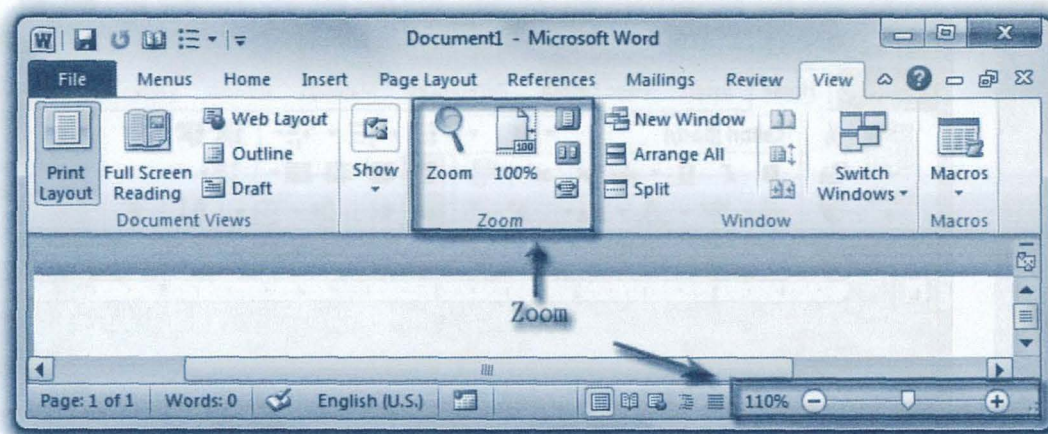
Just below the ruler is a large area called the text area. User types a document in the text area. The blinking vertical line in the upper-left corner of the text area is the cursor. It marks the insertion point. As user types, the text displays at the cursor location. The horizontal line next to the cursor marks the end of the document.





THE STATUS BAR

The Status bar appears at the very bottom of the window and provides such information as the current page and the number of words in the document. User can change what displays on the Status bar by right-clicking on the Status bar and selecting the options that user want from the Customize Status Bar menu.



3.2 EXAMPLE 1

COMPUTER SYSTEM BASICS

The good news is, with each month that passes, you get more computing power for less money. Everyone knows that computers are constantly getting faster, more powerful and less expensive. So, forget about trying to buy the latest and greatest machine. There is no such thing. Instead, you should buy a computer that adequately fits your needs, not the needs of your computer company's bottom line. The guide below is designed to give you a basic understanding of each of the standard computer components. After the introduction to the concepts, you'll find some resources for finding out about current computer models. For each computer you choose, list the following information:

- ✓ Brand
- ✓ Model
- ✓ Price
- ✓ Processor Type / Speed
- ✓ Memory Type / Amount
- ✓ Operating System

INSTRUCTIONS:

1. Type the document above using **Arial (12)**.
2. By using **Word Art**, change the size of the title to **36** and font type **Arial. Bold** and **Italic** that title.
3. Change the letter T at the beginning of a paragraph "The good news" to **Drop Cap** letter.
4. **Underline** the word "latest", "greatest" and **highlight** the words with blue colour.
5. Change the colour of word "computer" to **red** and **Bold** the words. Then, make the words change to **Uppercase** text.
6. Set the text alignment to **Justify** and the line spacing is **1.5**.
7. Change the bullets to the **numbering list**.
8. Make into **three columns**.
9. Put your name and registration number in a **text box** below of the document.
10. **Save** the document as **your_registration_number (EXERCISE 1 MS WORD)** in your class data storage.



SOLUTION

Type the document above using Arial (12).

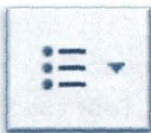
Step 1: Type the document.

Set the font as Arial and the font size = 11.



To add bullets to the list,

Click the Bullets drop-down arrow on the Home tab.



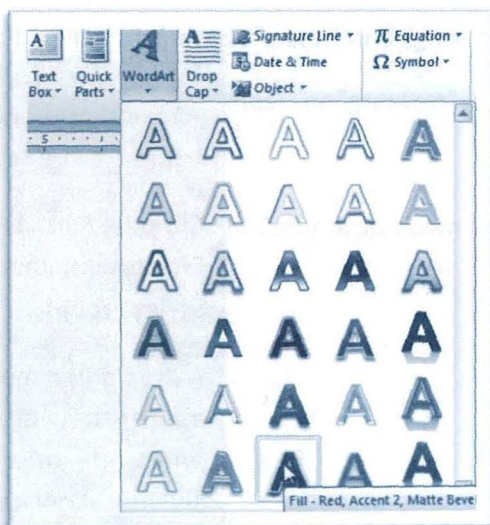
Select the bullet style you would like to use and it will appear in the document.

Using Word Art, change the size of the title to 36 and font type Arial. Bold and Italic that title.

Step 2: Type the title "Computer System Basics" using Word Art.

Click the Insert tab.

Click the Word Art command. The Quick Styles drop-down menu will appear.



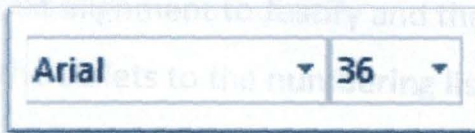
Select the desired Quick Style and type the title.

COMPUTER SYSTEM BASICS

Change the font type as Arial and the size = 36

Click the Home tab.

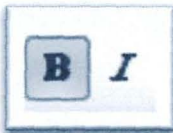
Select font type as Arial and change the title size to 36.



You can also use the Grow Font and Shrink Font commands to change the font size.



Click the Bold (B) and Italic (I) command in the Font group.



To add or modify WordArt effects:

Click the Format tab > Text Effects command (WordArt Styles group)

A drop down menu will appear showing the different effect categories such as shadow, glow, reflection or 3D rotation).

Change the letter T at the beginning of a paragraph "The good news" to Drop Cap letter.

Step 3: To change the letter T to drop cap letter,

Highlight the letter "T".

Click the Insert tab.

Click the Drop Cap command. The Drop Cap Options drop-down menu will appear.



Select Drop Cap style as Dropped.

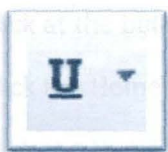
Underline the word "latest", "greatest" and highlight the words with blue colour.

Step 4: To underline the words "latest" and "greatest",

Highlight the word "latest" or "greatest".

Click the Home tab.

Click the Underline command.



You can also use Ctrl + U to underline a word.

To highlight the words "latest" and "greatest" with blue colour,

Highlight the word "latest" or "greatest".

Click the Home tab.

Click the Text Highlight Color drop-down arrow.



Select the Blue colour.

Change the colour of word "computer" to red and Bold the words. Then, make the words change to Uppercase text.

Step 5: To change the colour of word "computer" to red and Bold the words,

Highlight the word "computer"

Click the Home tab.

Click the Font Color drop-down arrow.

Select the Red colour



Highlight the word "computer" again

Click the Bold command.

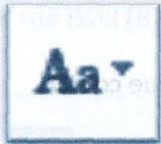


You can also use Ctrl + B to bold a word.

To make the words "computer" change to Uppercase text,

Highlight the word "computer" again

Click the Change Case drop-down arrow



Select the Uppercase style

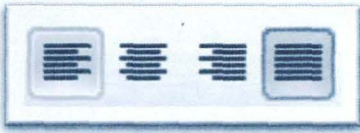
Set the text alignment to Justify and the line spacing is 1.5.

Step 6: To set the text alignment as Justify and the line spacing = 1.5,

Highlight the document

Click the Home tab.

Select Justify alignment from the Paragraph group.

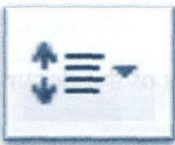


You can also use **Ctrl + J** to Justify the text.

To set the line spacing = 1.5

Highlight the document

Click the Line and Paragraph Spacing command in the Paragraph group.



Select 1.5 spacing from the drop-down menu.

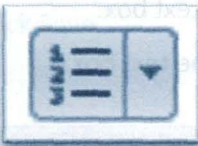
Change the bullets to the numbering list.

Step 7: To change the bullets into numbering,

Click at the bullets.

Click the Home tab.

Click the Numbering drop-down arrow.



Select a Numbering formats you would like to use and it will appear in the document.

Make into three columns.

Step 8: To make three columns,

Highlight all the text except Drop Cap letter.

Click the Page Layout tab.

Click the Column drop-down arrow.



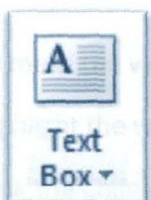
Select three columns from the drop-down menu.

Put your name and registration number in a text box below of the document.

Step 9: To insert a text box,

Select the Insert tab.

Click the Text Box command in the Text group and a drop-down menu will appear.



Select Draw Text Box.

Click and drag below the document to create the text box.

Type your name and registration number inside the text box.

You can also select one of the build-in text boxes from the drop-down menu.

If you choose this option, the text box will appear automatically, so you will not need to click and drag to draw it.

To change the text box appearance:

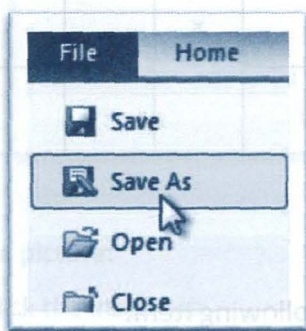
Select the text box.
Click the Format tab.
Select any command you would like to use.

Save the document as your_registration_number (EXERCISE 1 MS WORD) in your class data storage.

Step 10: To save the document.

Click the File tab.

Select Save As.



The Save As dialog box will appear.

Select the location to save the document as your class data storage.

Enter file name as your_registration_number (EXERCISE 1 MS WORD).

(Example: 06DKA11F1010 (EXERCISE 1 MS WORD))

Click Save.

You can also use the Save command on the Quick Access Toolbar.

Word automatically saves your documents to a temporary folder while you working on them.

By default, Word autosaves every 10 minutes.



3.3 EXAMPLE 2

TIMETABLE DKA1S1

JUL '12



TIME \ DAY	8.00 9.00	9.00 10.00	10.15 11.15	11.15 12.15	12.15 1.15	1.15 2.15	2.15 3.15	3.15 4.15	4.15 5.15
Monday				BA101 B-NFH (E13)					
Tuesday	BA101 B-SMR (M13)					R E L A X			
Wednesday							AR101 KOKURIKULUM 1		
Thursday									PA A-MNI (A15)
Friday									

INSTRUCTIONS:

- Your timetable should include the following items:
 - Time and Day
 - Course Code
 - Lecturers Name Code
 - Word Art and Picture
- Create your timetable as creative as possible using other toolbar in Ms Word.
- Insert **page numbers** at the bottom right of the page.
- Insert **page Header** title Computer Application (BC101).
- Put your name and registration number in a **shape box** below of the timetable.
- Change the **page orientation** to Landscape orientation.
- Save the document as **your_registration_number (EXERCISE 2 MS WORD)** in your class datastorage.
- Save the document again as a **PDF document** using the same file name.

 SOLUTION

To create a Word Art:

Step 1: Click the Insert tab.

Click the Word Art command. The Quick Styles drop-down menu will appear.

Select the desired Quick Style and type the title.

TIMETABLE DKA1S1
JUL '12

To insert a picture:

Step 2: Click the Insert tab.

Click the Picture command in the Illustrations group. The Insert Picture dialog box appears.



Select the desired image file and click Insert to add it to your document.

To add or modify Pictures Styles, Border, Effects, Wrap Text and others format:

Click on the Pictures > Format tab)

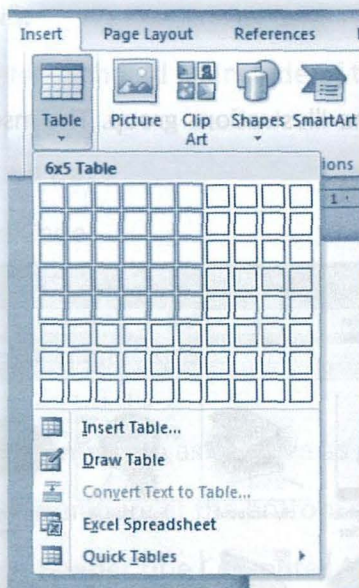
Try to use different command in the Format tab to see how the image changes.

To create a blank table:

Step 3: Click the Insert tab.

Click the Table command in the Tables group.

Hover your mouse over the diagram squares to select the number of columns and rows in the table.



Click your mouse and the table appears in the document.

You can now place the insertion point anywhere in the table to add text.

To modify Table Design, Table Layout and Table Styles:

Click on the Table

Choose Design tab or Layout tab

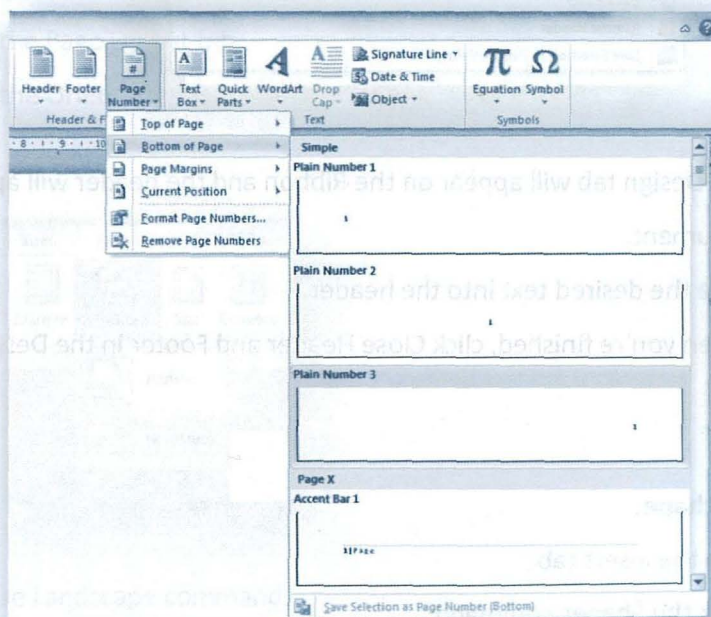
Try to use different command in the tabs to see how the table changes.

To insert page numbers:

Step 4: Click the Insert tab.

Click the Page Number command in the Header & Footer group. A drop-down menu will appear.

Select the suitable page number style and it will appear in your document.

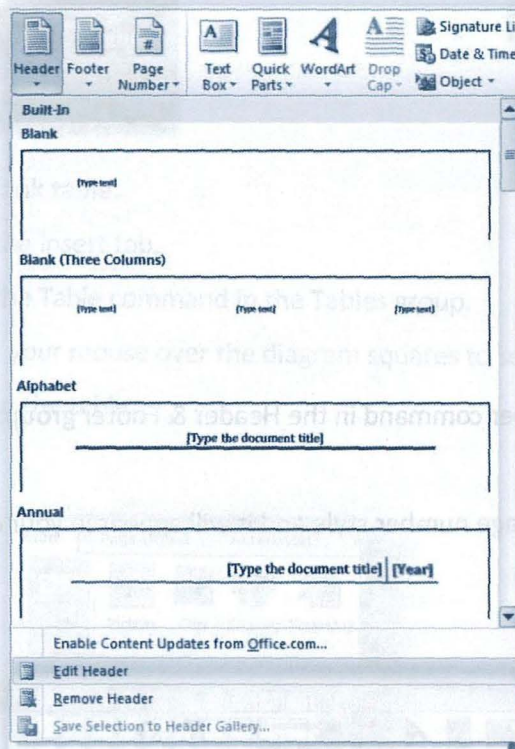


To insert a Header:

Step 5: Click the Insert tab.

Click the Header command in the Header & Footer group. A drop-down menu will appear.

From the drop-down menu, select Blank or Edit Header command to insert a blank header or choose one of the built-in options.



The Design tab will appear on the Ribbon and the header will appear in the document.

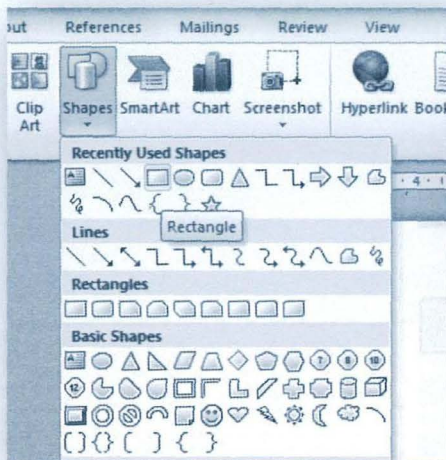
Type the desired text into the header.

When you're finished, click Close Header and Footer in the Design tab or hit the Esc key.

To insert a shape:

Step 6: Click the Insert tab.

Click the Shapes command.



Select a shape from the drop-down menu.

Click and drag the mouse until the shape is the desired size below the table.

Release the mouse button.

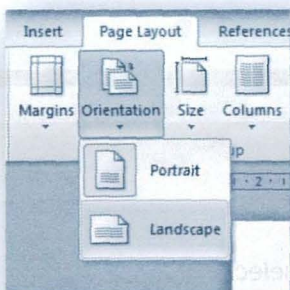
Then, right click the mouse and choose Add Text command.

Type your name and registration number inside the shape box.

To change page orientation:

Step 7: Click the Page Layout tab.

Click the Orientation command in the Page Setup group.



Choose Landscape command.

Landscape format means that the page is oriented horizontally.

To use Save As command:

Step 8: Click the File tab.

Select Save As.



The Save As dialog box will appear.

Select the location to save the document as your class data storage.

Enter file name as your_registration_number (EXERCISE 2 MS WORD).

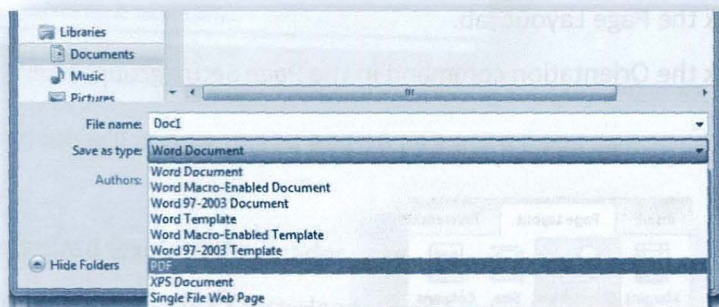
(Example: 06DKA11F1010 (EXERCISE 2 MS WORD))

Click Save.

To Save As a PDF:

Step 9: Click the File tab.

Select Save As.



In the Save as type drop-down menu, select PDF.

Select the location to save the document as your class data storage.

Enter file name as your_registration_number (EXERCISE 2 MS WORD).

(Example: 06DKA11F1010 (EXERCISE 2 MS WORD))

Click the Save button.

start Excel from the Windows desktop, follow these steps:

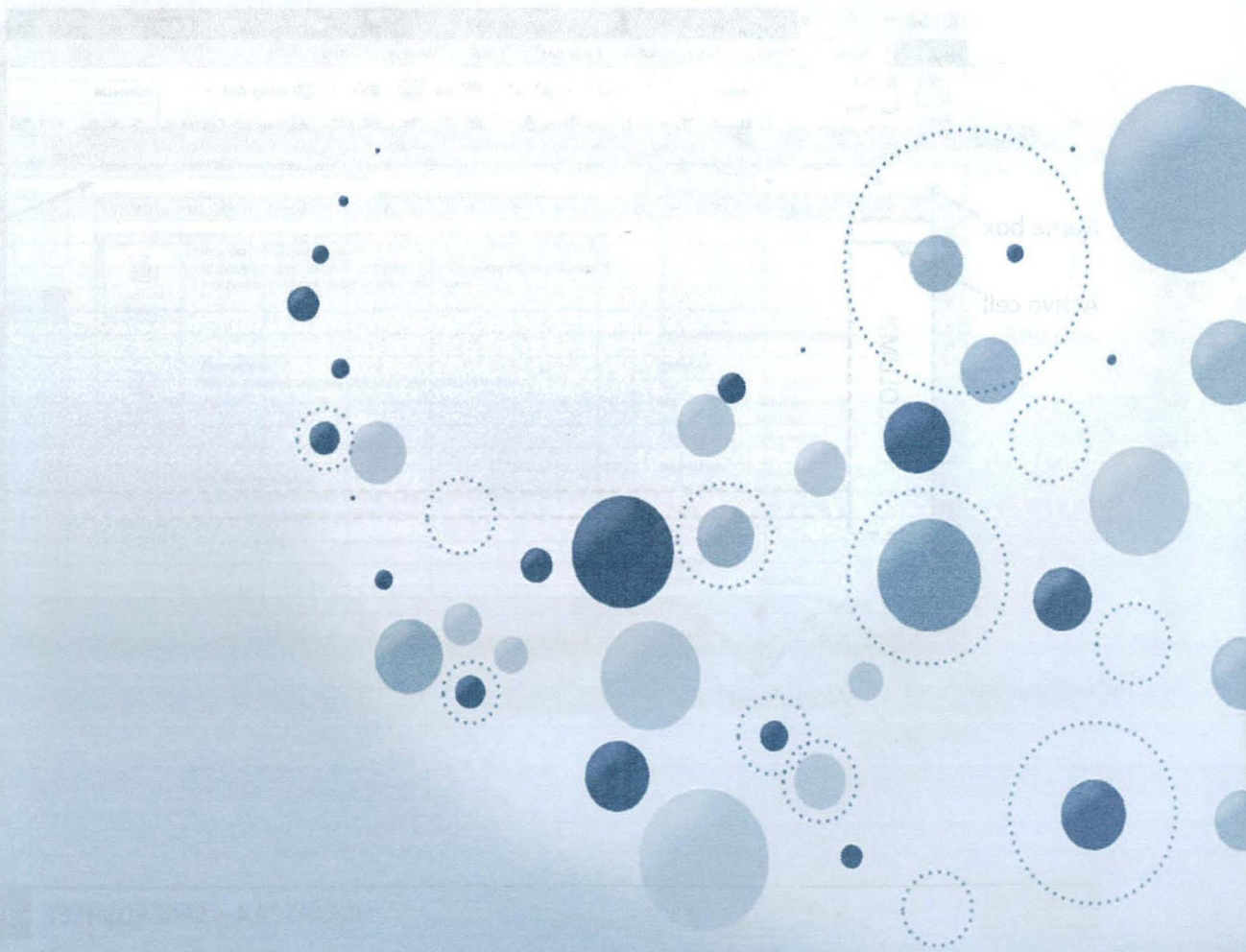
Click the Start button, and then click All Programs.

Select the Microsoft Office program group, and then click Microsoft Excel 2010.

CHAPTER 4:

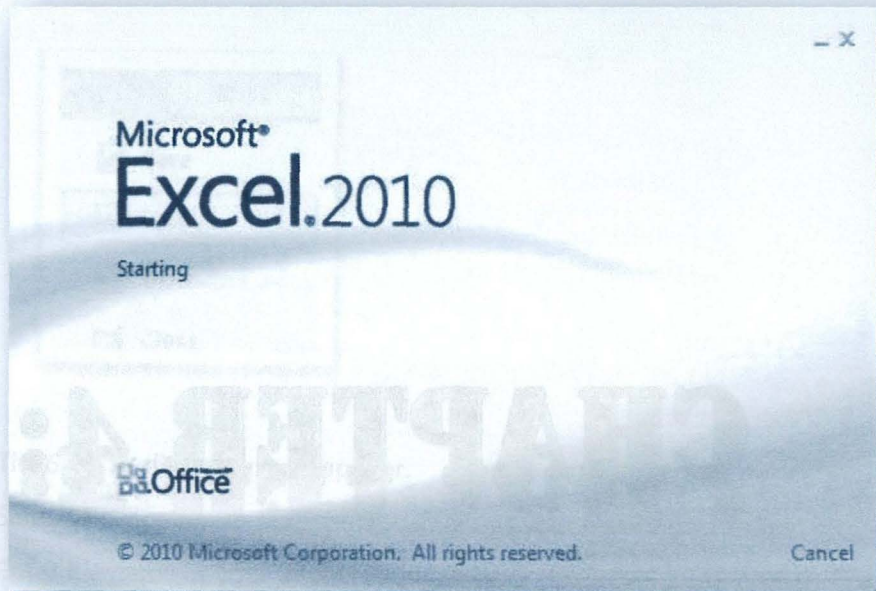
SPREADSHEET

Or you can either exit the Excel application by clicking the Exit button.



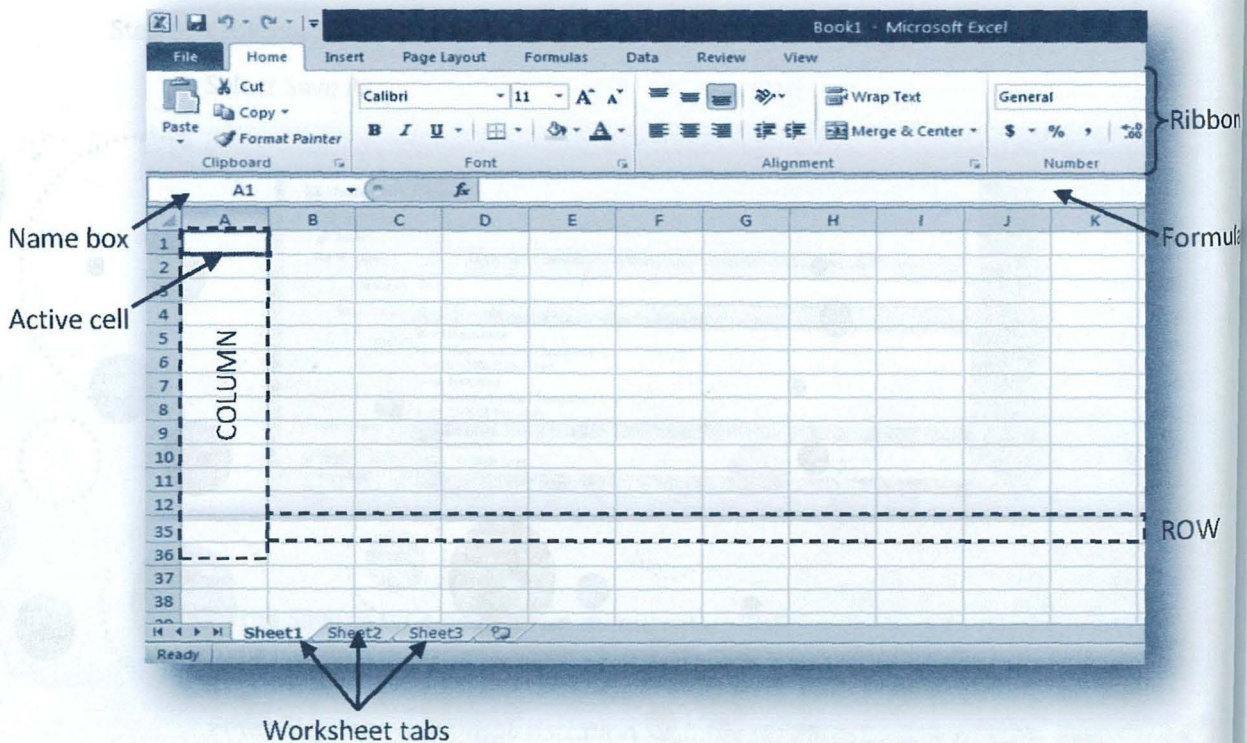


4.0 INTRODUCTION



Before begin creating spreadsheet, it is useful to be able to identify the various components that comprise a spreadsheet. Here is a list of the most common spreadsheet terms.

To Save As a PDF:



START AND EXIT SPREADSHEET

To start Excel from the Windows desktop, follow these steps:

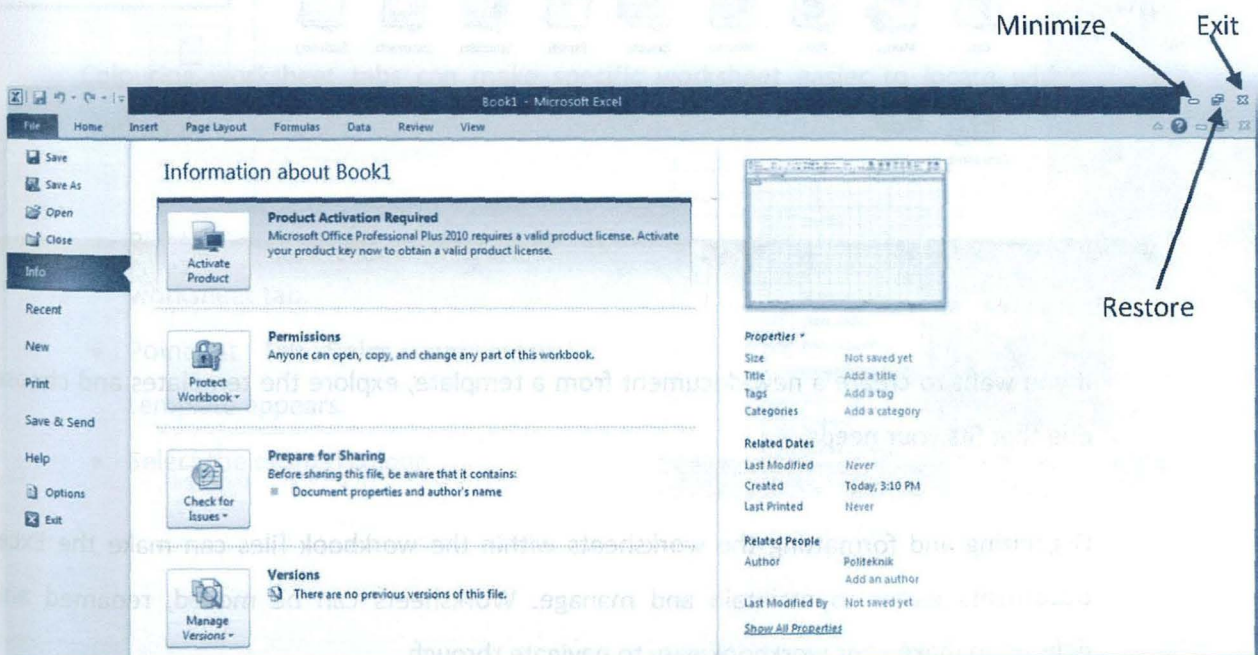
- Click the **Start** button, and the Start menu appears.
- Point at **All Programs**, and the Programs menu appears.
- Select the **Microsoft Office** programs group and then **Microsoft Office Excel 2010**.

When clicking the Microsoft Excel icon, the Excel application window appears, displaying a blank workbook labeled Book 1.

To exit the Excel application, follow these steps:

- Click the **File** tab, and the file menu appears.
- Click **Exit Excel** button.

Or you can either exit the Excel application by clicking the Exit button.

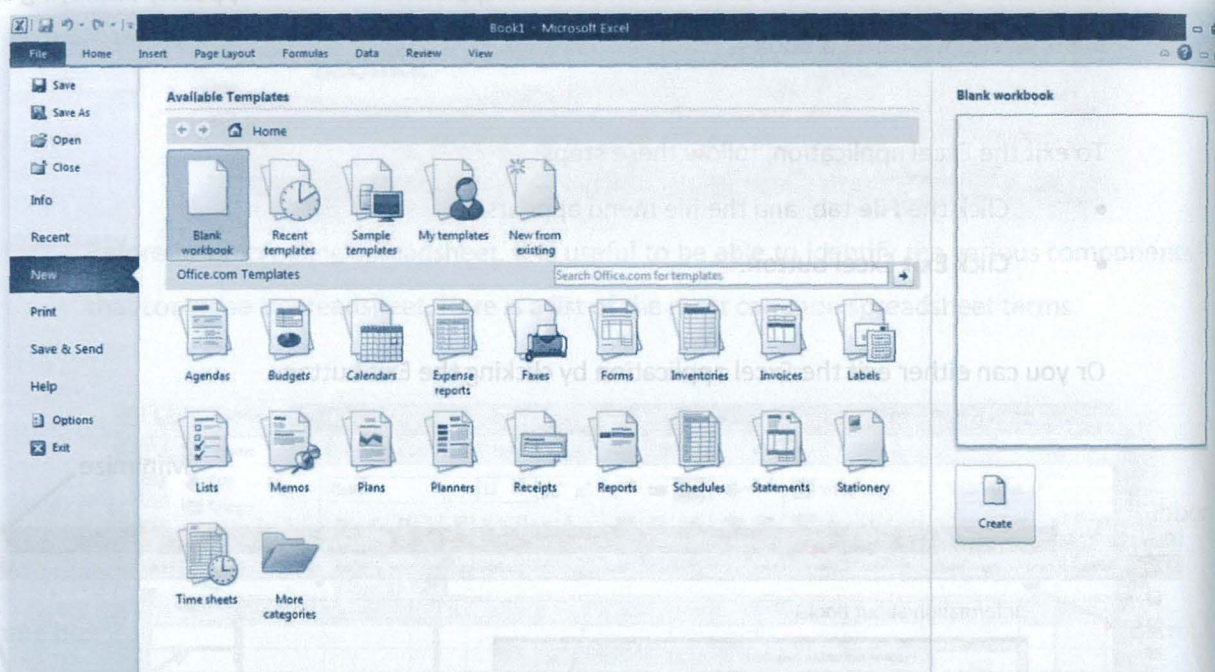




CREATING, ORGANIZING AND FORMATTING WORKBOOK

To begin creating a new workbook:

- Click the **File** tab.
- Click **New** command.
- Choose **Blank Workbook**.



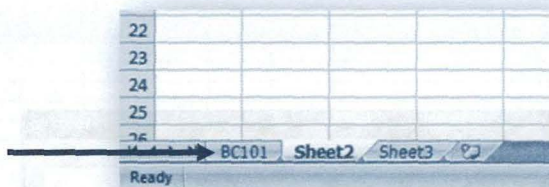
If you want to create a new document from a template, explore the templates and choose one that fits your needs.

Organizing and formatting the worksheets within the workbook files can make the Excel documents easier to maintain and manage. Worksheets can be moved, renamed and deleted to make your workbook easy to navigate through.

Renaming Worksheet Tabs

The tabs on the bottom of the worksheets contain the name of each worksheet. You can change the default name of the worksheet to describe its contents.

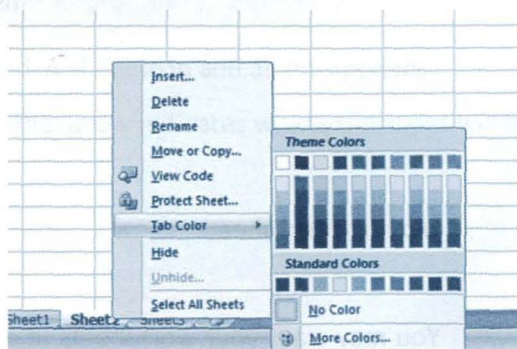
- Select the worksheet, double click the appropriate worksheet tab or right click the appropriate worksheet tab the select Rename command.
- Type the new sheet name.
- Press [Enter].



Changing Worksheet tab colours

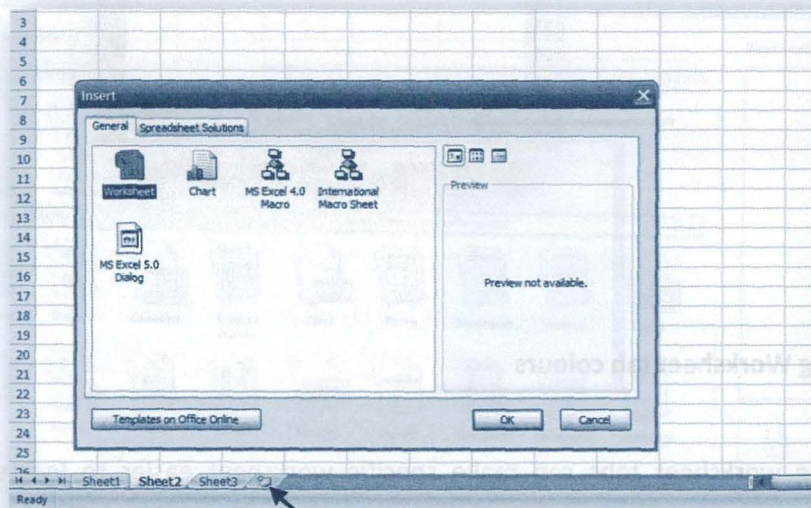
Colouring worksheet tabs can make specific worksheet easier to locate within a large workbook.

- Right click the appropriate worksheet tab.
- Point at **Tab Color**, and colour template appears.
- Select the desired colour.



Inserting Worksheet

- Right click on any worksheet tab.
- Click **Insert**, and Insert dialog box appears.
- Select the **General** tab, then select **Worksheet**, and click **OK**.
- The new worksheet is inserted in front (to the left) of the current worksheet.
- You can either insert a new worksheet by clicking **Insert Worksheet** tab. A new worksheet is added to the right of all other worksheets.



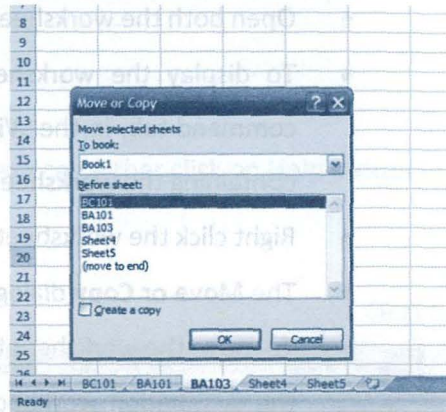
Insert Worksheet (Shift+F11)

Moving Worksheets

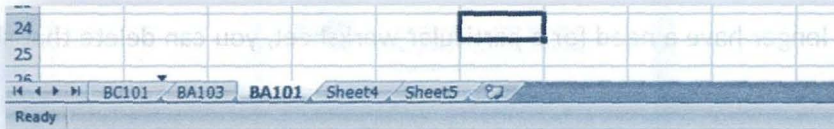
You may want your worksheets in a particular order when printing the final document. You may also want to group similar worksheets together, or simply rearrange the order for easier access while working on a file. If the original worksheet order no longer fits your needs, you can rearrange worksheets within the same workbook or move a worksheet to another workbook. There is few ways of moving worksheets:

Moving Worksheet (same workbook, right click)

- Right click the worksheet tab to be moved.
- Select **Move or Copy**.
- The **Move or Copy** dialog box appears.
- From the **To book** pull-down list, select the current workbook.
- From the **Before sheet** scroll box, select where the sheet will be moved.
- Click **OK**.



Moving Worksheets (same workbook, drag and drop option)



- Click and hold the worksheet tab to be moved. A sheet icon and arrow appears.
- Drag the sheet icon to the desired location. The arrow indicates where the sheet will be placed.
- Release the mouse button.

Moving Worksheets (different workbook)

- Open both the worksheets to be moved and the workbook to which it will be moved.
- To display the worksheet that will be moved, from the Ribbon, select the **View** command tab. In the Window group, click **Switch Windows**, then select the workbook containing the worksheet to be moved.
- Right click the worksheet tab to be moved, then select **Move or Copy**.
- The **Move or Copy** dialog box appears.
- To move the worksheet to an existing workbook, from the **To book** pull-down list, select the destination workbook. To move the worksheet to a new workbook, from the **To book** pull-down list, select **(new book)**.
- From the **Before sheet** scroll box, select where the sheet will be moved.
- Click **OK**. The worksheet is moved.

Deleting Worksheets

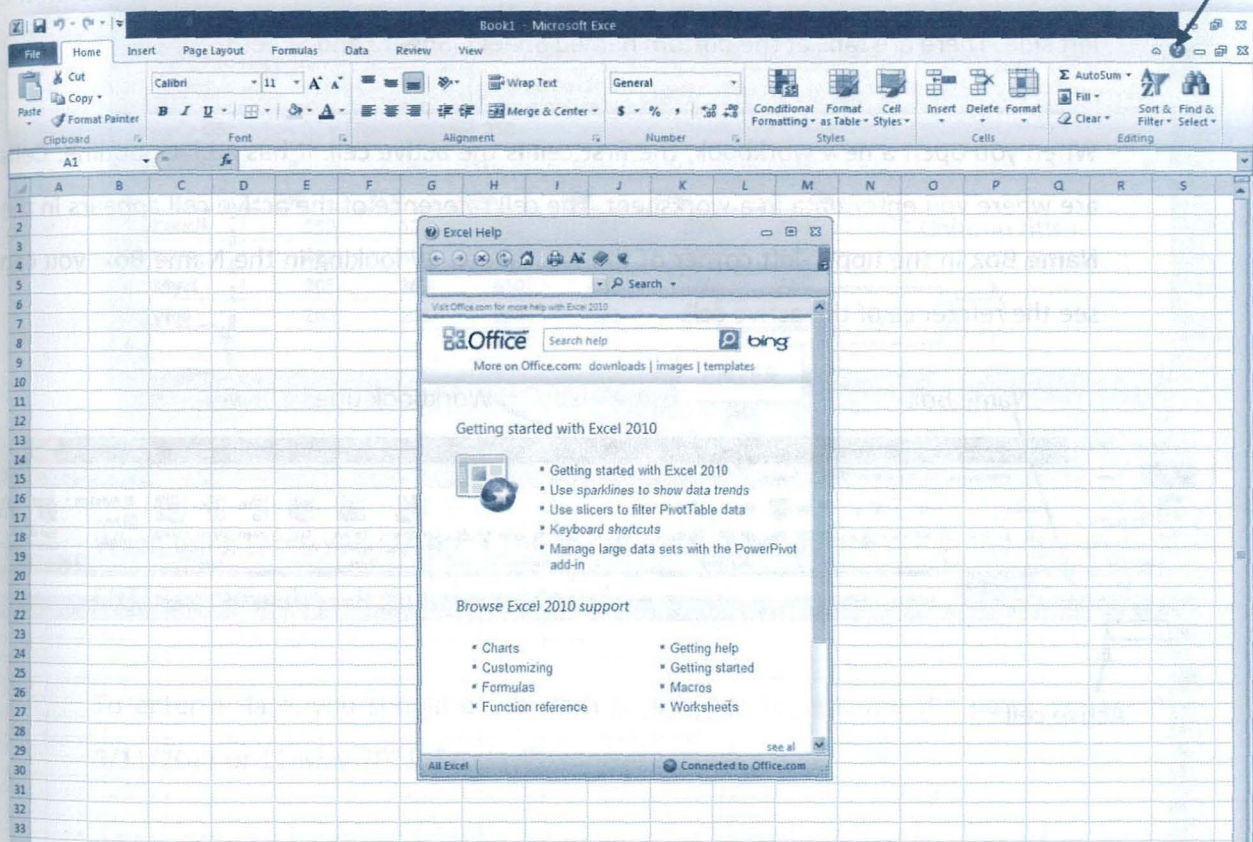
If you no longer have a need for a particular worksheet, you can delete that sheet from the workbook.

- Right click the appropriate worksheet tab.
- Select **Delete**. The sheet is deleted.

SPREADSHEET'S HELP FUNCTION

If you are unsure of using Microsoft Office Excel 2010, you can either click on **Help** button or press **F1** on the keyboard.

Help button



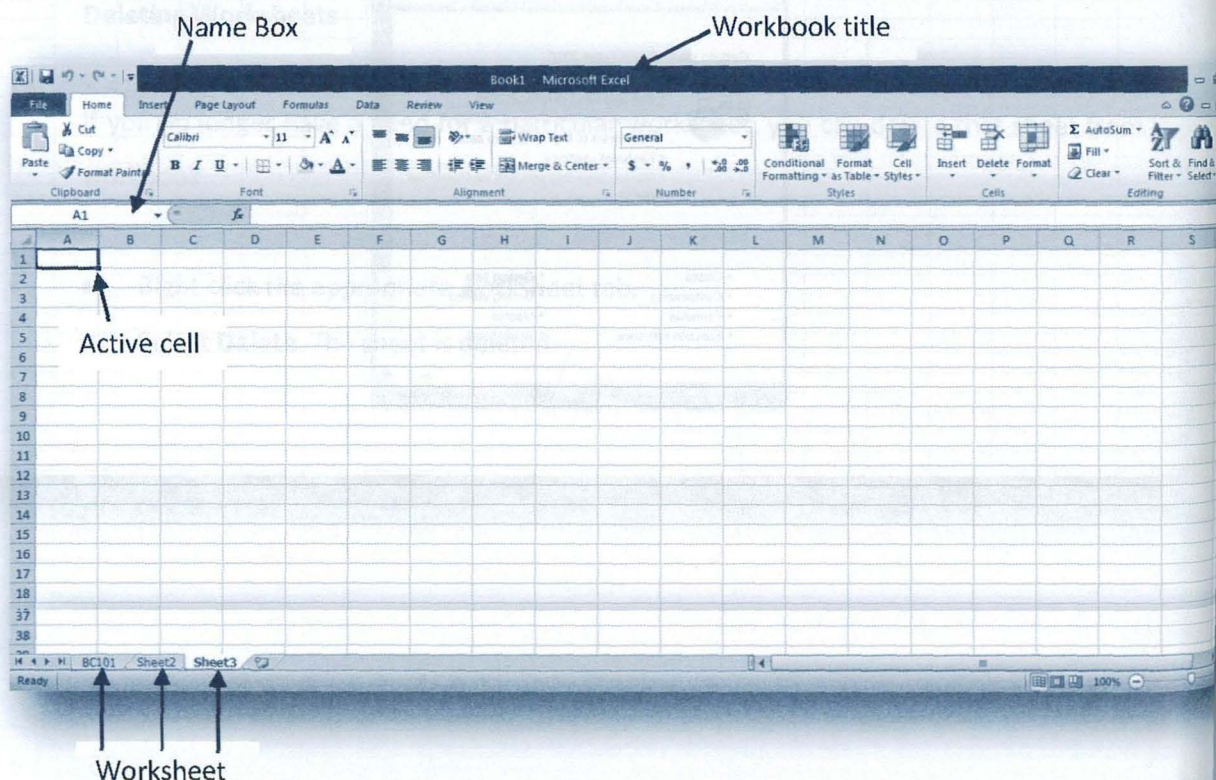


4.1 PRODUCE SPREADSHEET

CREATE NEW WORKBOOK AND INSERT CONTENT INTO WORKSHEET

When you start Microsoft Excel, a file called **workbook** is open and you will see a big empty grid. Every new workbook comes with three **worksheets**. You enter data into the worksheets or sometimes called spreadsheets. There are letters across the top and numbers down the left side. There are tabs at the bottom named Sheet1, Sheet2 and Sheet3.

When you open a new workbook, the first cell is the active cell. It has a black outline. Cells are where you enter data in a worksheet. The cell reference of the active cell appears in the **Name Box** in the upper-left corner of the worksheet. By looking in the Name Box, you can see the reference of the active cell.



You can enter two basic kinds of data into worksheet cells: numbers and text. Excel are used to create budgets, to work with taxes, or to record student grades, to list the products you sell or to record attendance.

When you enter data, it's a good idea to start by entering titles at the top of each column or row so that anyone who shares your worksheet can understand what that data means and so that you can understand it yourself later on.

In the picture below, the column titles are months, and the row titles are types of car. This worksheet shows monthly sales of the car.

	A	B	C	D	E	F	G	H	I	J	K
1		Jan	Feb	Mar	Apr	May	Jun				
2	Kancil	550	524	533	564	520	604				
3	Wira	421	420	400	400	430	435				
4	Myvi	305	360	450	462	460	486				
5	Viva	260	255	254	232	256	250				
6											

When using Excel, you can press TAB to move the selection one cell to the right and press ENTER to move the selection down one cell.

To enter a date, you should use a slash or a hyphen to separate the parts. For instance 5/11/2011 or 11-May-2011. Excel will recognize this as a date.

To enter a time, type the numbers, a space, and then "a" or "p". For example, 3:45 p. If you put just the number, Excel recognizes a time and enters it as AM. To enter the current date, press CTRL and the semicolon (;) together. To enter the current time, press CTRL and SHIFT and the semicolon all at once.

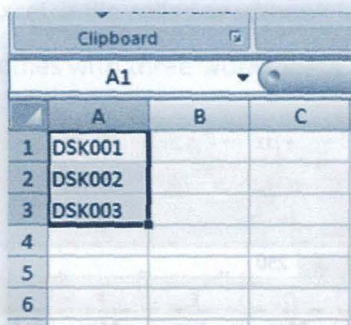
To enter fractions, leave a space between the whole number and the fraction. For example, 1 1/8.

Excel will interpret the number as a date.

If you type (50) to indicate a negative number by parentheses, Excel will display the number as -50.

Below are two time-savers data entry you can use in Excel:

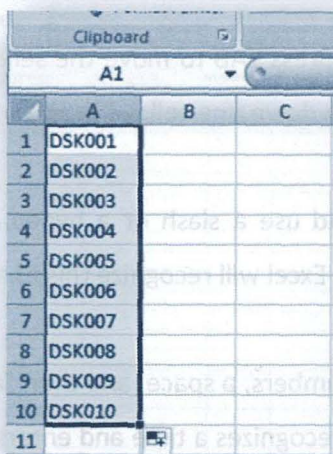
AutoFill – Enter a series of numbers. For example, DSK001, DSK002, DSK003, then select these series.



The screenshot shows an Excel spreadsheet with a 'Clipboard' icon in the top right. The active cell is A1. The first three rows of column A are highlighted, containing the text 'DSK001', 'DSK002', and 'DSK003'. The rows are numbered 1 through 6 on the left margin.

	A	B	C
1	DSK001		
2	DSK002		
3	DSK003		
4			
5			
6			

Place the mouse pointer at the right and bottom of the highlighted area. Click and hold, and drag down the mouse.



The screenshot shows the same Excel spreadsheet, but now the series has been filled down to row 11. The cells in column A from row 1 to row 11 contain 'DSK001' through 'DSK010' respectively. The rows are numbered 1 through 11 on the left margin.

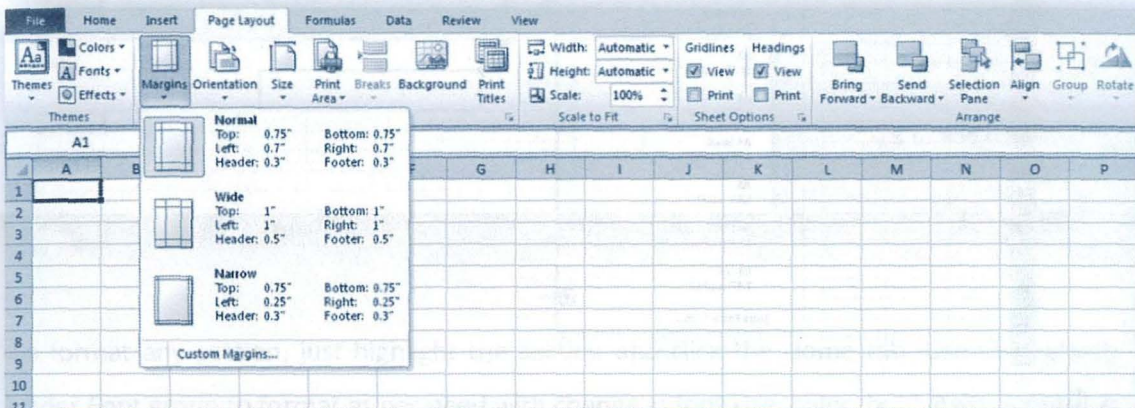
	A	B	C
1	DSK001		
2	DSK002		
3	DSK003		
4	DSK004		
5	DSK005		
6	DSK006		
7	DSK007		
8	DSK008		
9	DSK009		
10	DSK010		
11			

AutoComplete – If the first few letters you type in a cell match an entry you've already made in that column, Excel will fill in the remaining characters for you. Just press ENTER when you see them added. This works for text or for text with numbers. It does not work for numbers only, for dates, or for times.



MODIFY PAGE SETUP

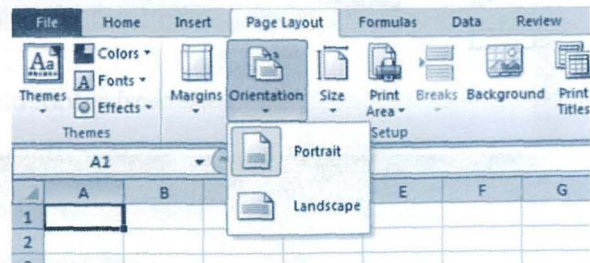
In Excel 2010 Page Setup section of the **Page Layout** tab the first button is **Margins**. Click the down arrow to see the default selections. These are the margins that you need to set for printing document.

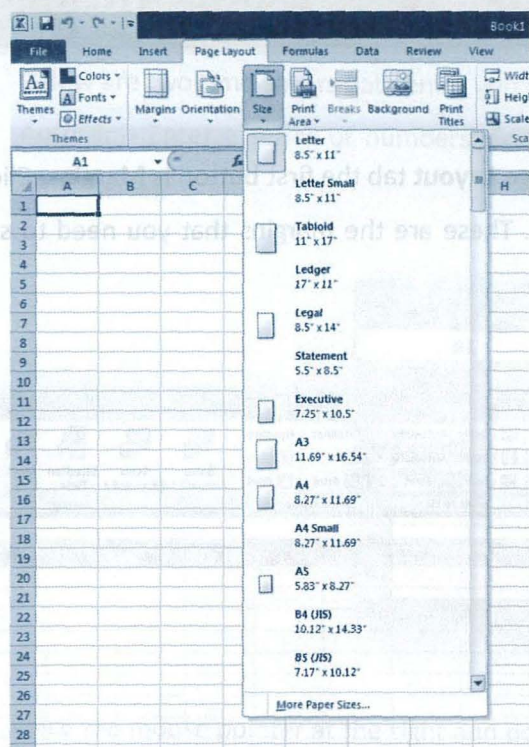


You can also set custom margins by clicking the custom margins selection at the bottom of the Margins button.

The **Page Setup** window will open automatically to the Margins tab. In this tab you can set the top, bottom, left and right margins. In this tab you can also set the spacing for the header and footer or center the spreadsheet either horizontally or vertically. The page in the center gives you a preview of how the spreadsheet will print.

The next button is **Orientation**. Click the down arrow on the Orientation button. This button lets you change the orientation of your spreadsheet to portrait or landscape.

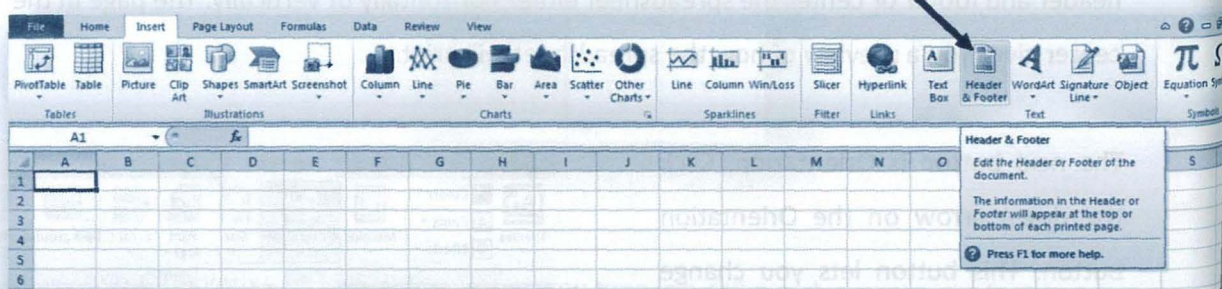




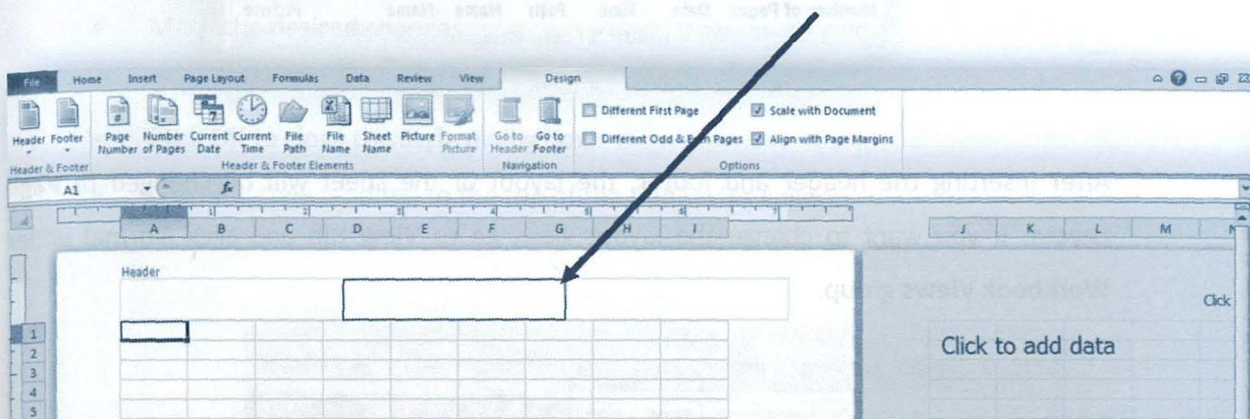
Next to Orientation button in the Page Layout tab is **Size** button. This button will let you select the size of the paper. The 21.59 cm x 27.94 cm (8.5" x 11") paper size is the default selection.

Working with header and footer in Excel 2010 has gotten much simpler and more sophisticated with varied options. Header and footer are information displayed on the top and bottom of page when the Excel sheet is printed. To insert header and footer:

- Click **Insert** tab.
- Click **Header & Footer** under **Text** group.



Now the layout of the sheet maybe changed to Page Layout from Normal spreadsheet layout. There are three sections of header and footer: left, center and right. Click on each section and begin typing the details that you want to appear on the header.



To format any section, just highlight the section and click the Home tab. Use the options under Font group to format as per need with change in font size, color, bold, italic, underline etc.

To change options in header and footer, you can find those features under new tab:

- Look under **Header & Footer Tools**.
- Click **Design** tab.

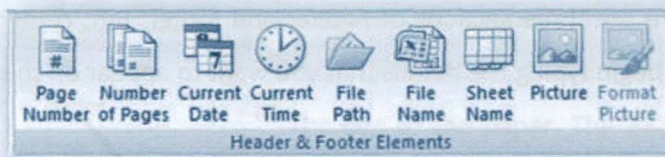


You can choose various templates of header and footer from the menu.

While inserting header and footer, you can navigate between them using the **Navigation** menu under **Header & Footer**, **Design** tab. This allows to switch between header and footer.



You can also insert various header and footer elements like **Page Number**, **Number of Pages**, **Current Date**, **Current Time**, **File Path**, **File Name**, **Sheet Name** and **Picture**.



After inserting the header and footer, the layout of the sheet will be changed to **Page Layout**. If you want to change the layout view, go to **View** tab and click **Normal** under **Workbook Views** group.

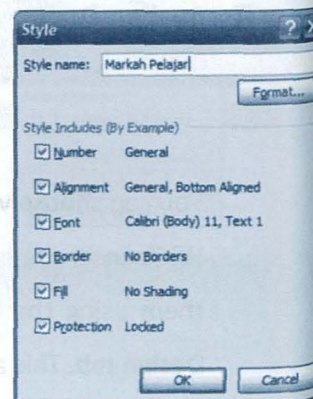


WORKSHEET FORMATTING

A style in Excel 2010 is combinations of formatting options that is named and save as part of your current spreadsheet file. The new style can then quickly be applied to data and cells in the spreadsheet.

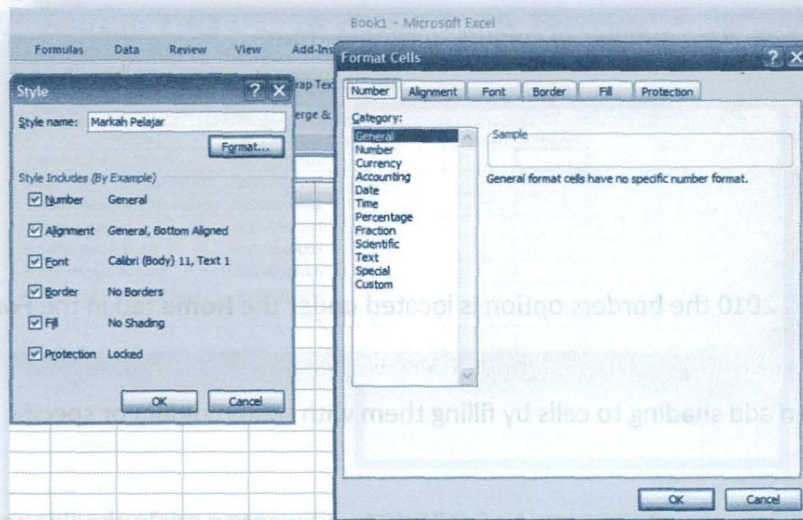
Below are steps to create a custom formatting style in Excel 2010.

- Select a single spreadsheet cell.
- Apply all desired formatting options to this cell.
- Click the **Home** tab on the ribbon.
- Click on **Cell Styles** option under **Styles** group to open the cell styles gallery.
- Click on the **New Cell Styles** option at the bottom of the gallery to open the style dialog box.
- Type a name for the new style in the **Style name** box.
- The formatting options already applied to the cell will be listed in the dialog box.



To make additional formatting options or modify the current choices:

- Click on the **Format** button in the **Style** dialog box to open the **Format Cells** dialog box.
- Click on the appropriate tab in the dialog box
- Make the desired changes.
- Click **OK** to close the **Format Cells** dialog box.
- Click **OK** to close the **Style** dialog box.
- The new style is added to the top of the **Cell Styles** gallery.



To apply the new style to cells in your spreadsheet:

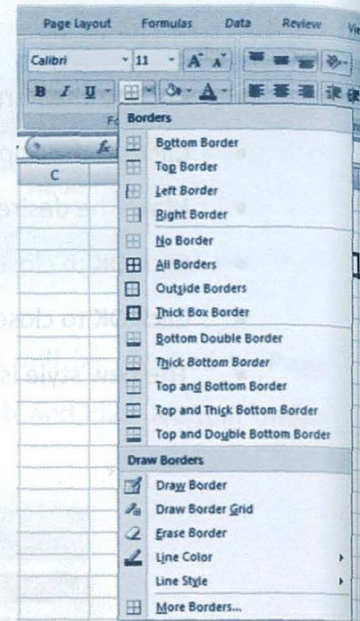
- Select the desired cells.
- Click the **Home** tab on the ribbon.
- Click on the **Cell Styles** option under **Styles** group.
- Click on the new style name at the top of the gallery.
- The style's formatting is immediately applied to the selected cells.

Border, shading, colour and cell size

Adding lines and borders is a quick way to format important information in Excel.

There are many options when it comes to adding and formatting lines and borders.

- Borders can be added to one or all sides of a cell or block of cells.
- Different thickness of lines can be used.
- A variety of line styles are available.
- There are a number of colours to choose from.



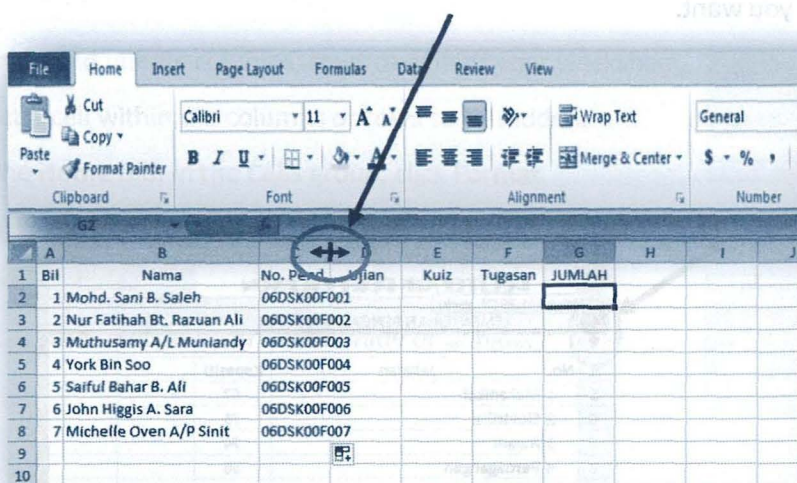
In Excel 2010 the borders option is located under the **Home** tab in the **Font** group.

You can add shading to cells by filling them with solids colours or specific patterns.

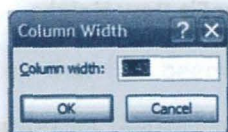
- Select the cells or ranges of cells that you want to apply shading to or remove shading from.
- Go to **Home** tab under **Font** group. Do one of the followings:
 - ✓ To fill cells with solid colour, click the arrow next to **Fill Color**  and then click the colour that you want on the palette.
 - ✓ To apply the most recently selected colour, click **Fill Color** .
 - ✓ To remove a fill colour or fill pattern from the selected cells or cell ranges, click the arrow next to **Fill Color** ,  and then click **No Fill**.

In Excel 2010, you can change any column widths or row heights in your worksheets to improve the readability and appearance of data. Follow these steps to adjust the width of one or more columns:

- Select the columns whose width you want to change. You select an entire column by clicking its column letter. If you want to adjust a single column, click any cell in that column.
- Choose a method to adjust column width. To manually change the width of column, position the mouse pointer on the right boundary of a column heading until it turns into a double-sided arrow. Drag until the column is the width that you want.



- To set a column width to a specific setting, go to **Home** tab on the ribbon. Under **Cells** group, click **Format**. Select **Column Width**.



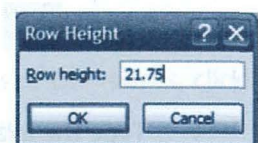
- Type the exact width you want in the **Column Width** dialog box, and then click **OK**.
- To automatically change the column width so it fits the widest entry, double click the boundary on the right side of the column heading. Or go to **Home** tab, click **Format**, then click **AutoFit Column Width**.

To change the height of one or more rows, follow these steps:

- Select the rows whose height you want to adjust. To select an entire row, click on the row number on the left. If you want to adjust a single row, click any cell in that row.
- Choose a method to adjust row height. To manually change the row height, position the mouse pointer until it turns into double-sided arrow. Drag until the row is the height that you want.

	A	B	C	D	E
1	POLITEKNIK PORT DICKSON				
2	KEMENTERIAN PENGAJIAN TINGGI				
4	No.	Jabatan	Kapasiti		
5	1	Mekanikal	87		
6	2	Elektrikal	76		
7	3	Awam	74		
8	4	Perdagangan	56		
9	5	Matematik, Sains & Komputer	40		
10	6	Pengajian Am	31		
11					

- To automatically change the height of a row so it fits the tallest entry in the row, double-click the boundary on the bottom of the row heading. Or, on the **Home** tab, choose **Format**. Then click **AutoFit Row Height**.
- To set a row height to specific setting, on the **Home** tab, choose **Format**, and then click **Row Height**. Type the exact height you want in the **Row Height** dialog box, and then click **OK**.

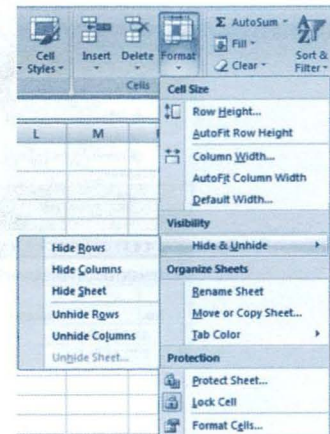


Hiding columns, rows, and cells

At times, there may be information in your worksheet which you no longer need to see. At other times, you might be printing your worksheet and want to print only columns A to F and columns H to J, skipping column G. Rather than rearrange your worksheet for either of these examples, you can simply hide the information. You can also hide information in specific cells.

You can hide and unhide columns, rows or cells of your worksheet.

- Select a cell within the columns or rows to be hidden.
- On the **Home** tab, in the **Cells** group, click **Format**.
- From the **Format** menu, in the **Visibility** section, go to **Hide & Unhide**.
- Click on the selection you wish to hide or unhide.



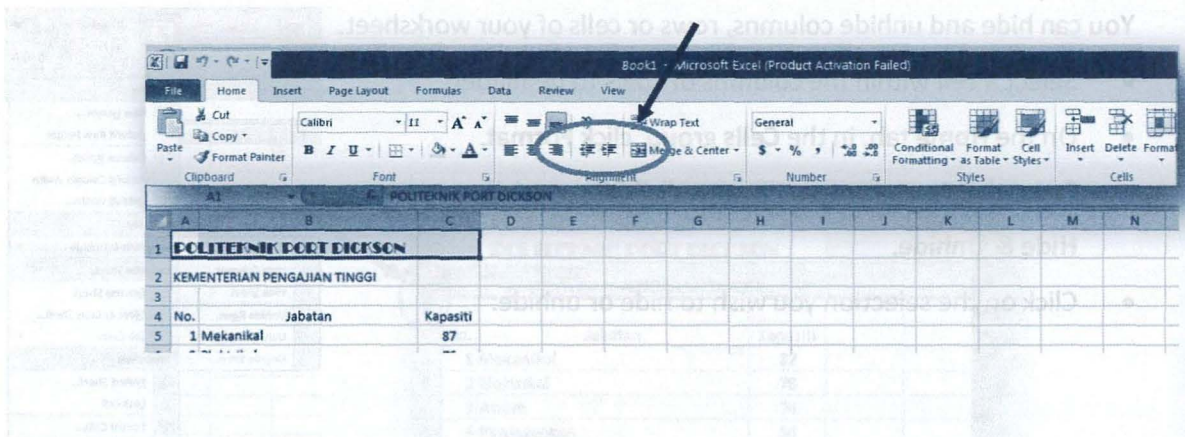
Merge and unmerge cells

You can merge two or more adjacent cells into one cell and display the contents of one cell in the merged cell. You can also merge the contents of several cells and display them in one cell. Merging cells disables sorting functionality.

You can unmerge or split a cell that has been merged, but you cannot split an empty, unmerged cell. You can, however, split the contents of an unmerged cell and distribute the divided contents across other cells.

When you merge two or more adjacent cells, the cells become one merged cell, and the contents of the upper-left cell are displayed in the center of the merged cell. Data in other cells of the selected range will be deleted.

- Select the cells that you want to merge.
- On the **Home** tab, look under **Alignment** group. Click **Merge & Center**.
- If the **Merge & Center** button is unavailable, the selected cell may be in editing mode. To cancel editing mode, press **ENTER**.
- To change the text alignment in the merged cell, select the cell, and then click **Align Left** or **Align Right** on the **Home** tab under **Alignment** group.

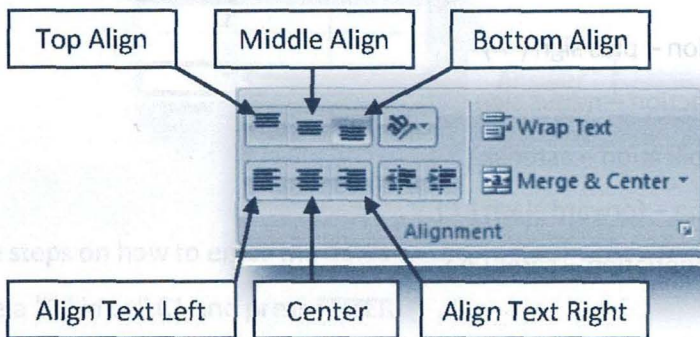


You can split only cells that were previously merged.

- Select the merged cell.
- On the **Home** tab, look under **Alignment** group. Click **Merge & Center**.
- When the merged cell is split, the contents of the merged cell will appear in the upper-left cell of the range of split cells.

Align cell content

In Excel 2010, you can change the horizontal and vertical alignment of cell data. By default, text is left-aligned, and values or dates are right-aligned. Use the buttons in the **Alignment** group of the **Home** tab to alter the alignment.



4.2 EXCEL 2010 FORMULA

Formulas are one of the most useful and well used features in spreadsheets such as Excel. Formulas can be used to perform basic number crunching, such as addition or subtraction, as well as more complex calculations such as payroll deductions or averaging a student's test results. Using formulas effectively is central to getting the most out of your spreadsheets.

Writing formulas is really quite easy to do. All you need is an understanding of how they work and the steps that you need to follow each time you create one.



BASIC FORMULA

Creating formulas in Microsoft Excel is not difficult. Just combine the cell references of your data with the correct mathematical operator. The mathematical operators used in Excel formulas are similar to the ones used in math class.

- ✓ Addition – plus sign (+)
- ✓ Subtraction – minus sign (-)
- ✓ Multiplication – asterisk (*)
- ✓ Division – forward slash (/)
- ✓ Exponentiation – caret (^)

If more than one operator is used in a formula, there is a specific order that Excel will follow to perform these mathematical operations. This order of operations can be changed by adding brackets to the equation. An easy way to remember the order of operations is to use the acronym:

BEDMAS

The order of operations is:

B = brackets, ()

E = exponents, ^

D = division, /

M = multiplication, *

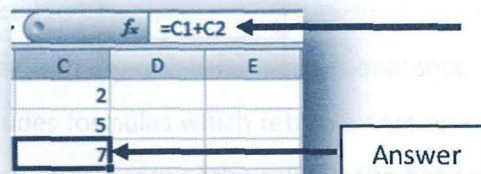
A = addition, +

S = subtraction, -

Any operations contained in brackets will be carried out first followed by any exponents. After that, Excel considers division or multiplication operations to be of equal importance, and carries out these operations in the order they occur left to right in the equation. The same goes for the next two operations: addition and subtraction. They are considered equal in the order of operations. Whichever one appears first in an equation, either addition or subtraction is the operation carried out first.

The following example creates a basic formula. The steps used to create this basic formula are the same ones to follow when writing more complex formulas. The formula will add the numbers 2 + 5. The final formula will look like this:

= C1 + C2

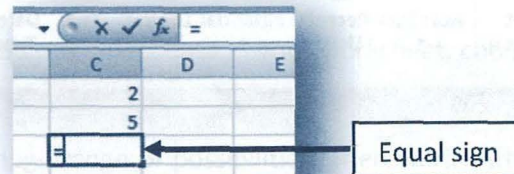


A screenshot of an Excel spreadsheet. The formula bar at the top shows the formula `=C1+C2`. The spreadsheet has columns C, D, and E, and rows 1, 2, and 3. Cell C1 contains the number 2, and cell C2 contains the number 5. Cell C3 contains the result 7. A box labeled "Answer" has an arrow pointing to cell C3.

C	D	E
2		
5		
7		

Here are the steps on how to enter the datas as shown on the picture above:

- Type a "2" in cell **C1** and press **ENTER**.
- Type a "5" in cell **C2** and press **ENTER**.
- Type the equal sign "=" in cell **C3**. When creating formulas in Microsoft Excel, always start by typing the equal sign. You type it in the cell where you want the answer to appear.



A screenshot of an Excel spreadsheet. The formula bar at the top shows the formula `=`. The spreadsheet has columns C, D, and E, and rows 1, 2, and 3. Cell C1 contains the number 2, and cell C2 contains the number 5. Cell C3 contains the equal sign `=`. A box labeled "Equal sign" has an arrow pointing to cell C3.

C	D	E
2		
5		
=		

- Then click on cell **C1**.
- Type a plus "+" sign.
- Click on cell **C2**.
- Press the **ENTER** key.
- The answer 7 should appear in cell **C3**.

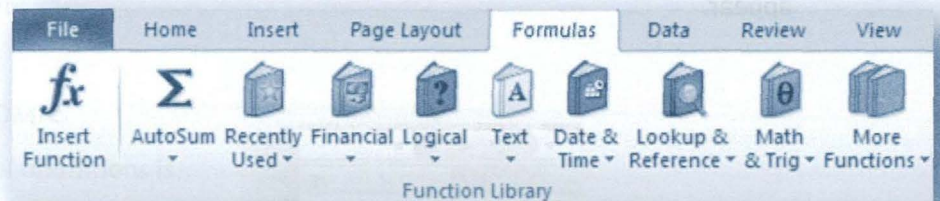
You can view the formulas by holding the **Ctrl** key and the tilde, ~ to switch back to worksheet view, you press it again. In formula view, your view will look like the picture below:

fx =C1+C2		
B	C	D
	2	
	5	
	=C1+C2	



FORMULA FUNCTIONS

Formulas, also called functions, are a powerful feature of Excel. Functions available in Excel are grouped into the following categories:



- **Financial** – formulas for calculating depreciation, interest, return on an investment, loan payment, and mortgage.
- **Logical** – the logical operators of **And**, **True**, **False**, **If**, **Not**, and **Or**.
- **Text** – formulas for combining text from various cells with the concatenate formula, converting text to upper case, lower case, or proper case, and trimming extra spaces from text.
- **Date & Time** – formulas for calculating the number of days between two dates, the current date, and day of the week for a given date.
- **Lookup & Reference** – formulas for doing a horizontal or vertical lookup, a hyperlink, or getting data from a Pivot Table.

- Math & Trig – formulas for calculating trigonometric functions, logs, random numbers, Roman numerals, rounding and truncating.
- Statistical – formulas for calculating averages, frequency, percentile, quartile, and standard deviation.
- Engineering – formulas for Bessel functions, and conversions between numbering systems such as octal to binary.
- Cube – formulas for working with three dimensional sets.
- Information – includes formulas which return a true or a false response in determining if a cell is blank, or if the content of the cell is a number or text.



4.3 OTHER FEATURES IN SPREADSHEETS

Chart can convey much more than numbers alone can because charts present data in a visual way that makes it easier to see the meaning behind the numbers.

Charts start with data, you just select data in your worksheet, choose a chart type that best suits your purpose, and click. To select a different chart type, just click again and select a new chart type from a huge range of possibilities. Then work with the new **Chart Tools** to customize the design, layout, and formatting of your chart.

Microsoft Office Excel 2010 no longer provides the chart wizard. Instead, you can create a basic chart by clicking the chart type that you want on the Microsoft Office Fluent user interface ribbon.

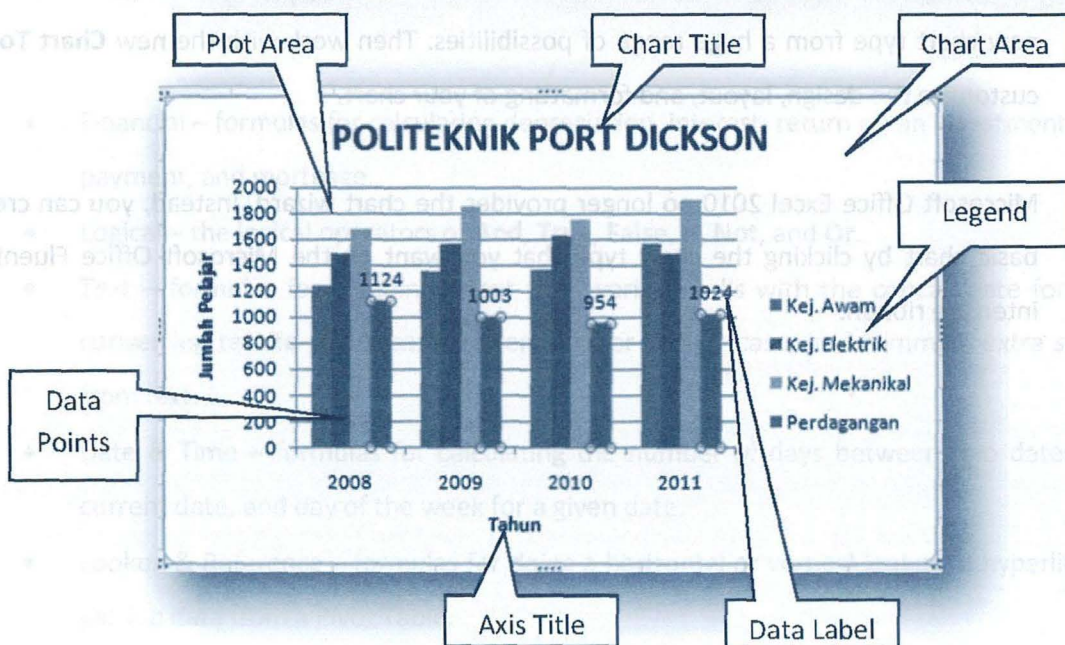


CREATE AND MODIFY CHART

Chart is used to display series of numeric data in graphical format to make it easier to understand large quantities of data and the relationship between different series of data. A chart has many elements. Some of these elements are displayed by default, others can be added as needed. You can change the display of the chart elements by moving them to other locations in the chart, resizing them, or by changing the format. You can also remove chart elements that you do not want to display. To create a chart in Excel, you start by entering the numeric data for the chart on a worksheet. Then you can plot that data into a chart by selecting the chart type you want to use on the Office Fluent Ribbon.

	A	B	C	D	E
1					
2		2008	2009	2010	2011
3	Kej. Awam	1237	1350	1360	1570
4	Kej. Elektrik	1484	1562	1630	1490
5	Kej. Mekanikal	1677	1852	1753	1900
6	Perdagangan	1124	1003	954	1024
7					

Worksheet Data

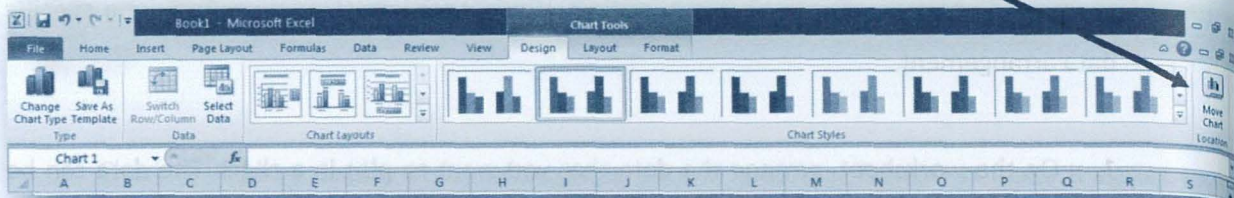


For most charts, such as column and bar charts, you can plot the data that you arrange in rows or columns on a worksheet into a chart. However, some chart types require a specific data arrangement.

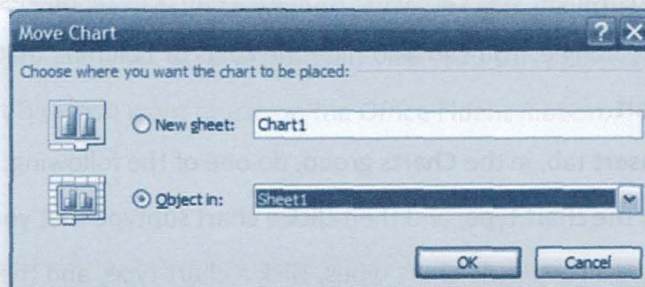
1. On the worksheet, arrange the data that you want to plot in a chart. The data can be arranged in rows or columns. Excel automatically determines the best way to plot the data in the chart.
2. Select the cells that contain the data you want to use for the chart. If you select only one cell, Excel automatically plots all cells that you want to plot in a chart are not in a continuous range, you can select nonadjacent cells or ranges as long as the selection forms a rectangle. You can also hide the rows or columns that you do not want to plot in the chart.
3. On the **Insert** tab, in the **Charts** group, do one of the following:
 - Click the chart type, and then click a chart subtype that you want to use.
 - To see all available chart types, click a chart type, and then click **All Chart Types** to display the **Insert Chart** dialog box, click the arrows to scroll through all available chart types and chart subtypes, and then clicks the ones that you want to use.



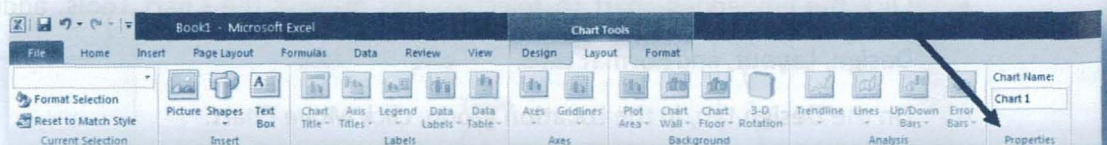
- A ScreenTip displays the chart type name when you rest the mouse pointer over any chart type or chart subtype.
4. By default, the chart is placed on the worksheet as an embedded chart. If you want to place the chart in a separate chart sheet, you can change its location by doing the following:
 - Click the embedded chart to select it. This displays the **Chart Tools**, adding the **Design**, **Layout**, and **Format** tabs.
 - On the **Design** tab, in the **Location** group, click **Move Chart**.



- Under **Choose where you want the chart to be placed**, do one of the following:



- To display the chart in a chart sheet, click **New sheet**. If you want to replace the suggested name for the chart, you can type a new name in the **New sheet** box.
 - To display the chart as an embedded chart in a worksheet, click **Object in**, and then click a worksheet in the **Object in** box.
5. Excel automatically assigns a name to the chart, such as **Chart1** if it is the first chart that you create on a worksheet. To change the name of the chart, do the following:
- Click the chart
 - On the **Layout** tab, in the **Properties** group, click the **Chart Name** text box. If necessary, click the **Properties** icon in the **Properties** group to expand the group.
 - Type a new name.
 - Press ENTER.





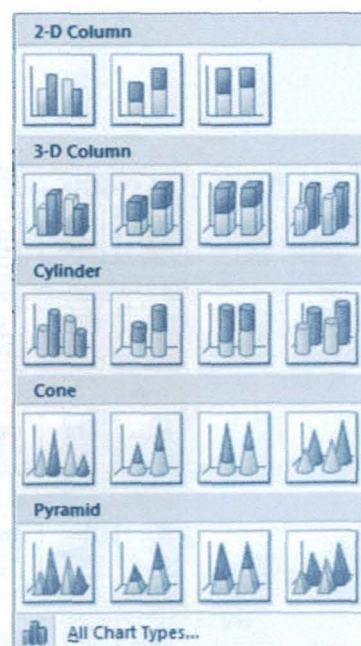
VARIOUS TYPES OF CHART

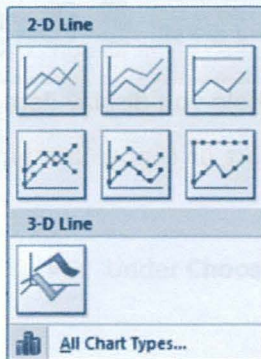
Microsoft Office Excel 2010 supports many types of charts to help you display data in ways that are meaningful to your audience. When you create a chart or change the type of an existing chart, you can select one of the following chart types:

- Column charts
- Line charts
- Pie charts
- Bar charts
- Area charts
- XY (scatter) charts
- Surface charts
- Doughnut charts
- Bubble charts
- Radar charts
- Other types of charts that you can create in Excel

Column charts

Data that is arranged in columns or rows on a worksheet can be plotted in a column charts. Column charts are useful for showing data changes over a period of time or for illustrating comparisons among items.



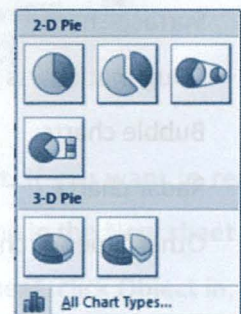


Line charts

Data that is arranged in columns or rows on a worksheet can be plotted in a line chart. Line charts can display continuous data over time, set against a common scale, and are therefore ideal for showing trends in data at equal intervals. In a line chart, category data is distributed evenly along the horizontal axis, and all value is distributed evenly along the vertical axis.

Pie charts

Data that is arranged in one column or row only on a worksheet can only be plotted in a pie chart. Pie charts show the size of items in one data series, proportional to the sum of the items. The data points in a pie chart are displayed as a percentage of the whole pie.

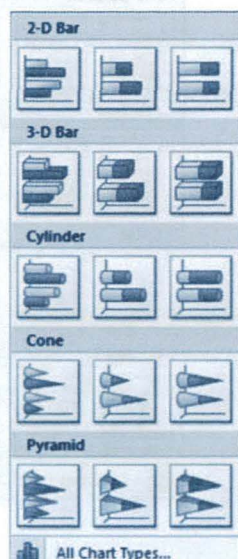


Bar charts

Data that is arranged in columns or rows on a worksheet can be plotted in a bar chart. Bar charts illustrate comparisons among individual items.

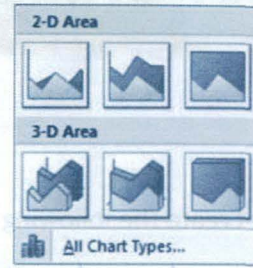
Consider using a bar chart when:

- The axis labels are long.
- The values that are shown are durations.



Area charts

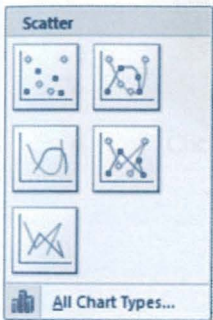
Data that is arranged in columns or rows on a worksheet can be plotted in an area chart. Area charts emphasize the magnitude of change over time, and can be used to draw attention to the total value across a trend. For example, data that represents profit over time can be plotted in an area chart to emphasize the total profit.



XY (scatter) charts

Data that is arranged in columns and rows on a worksheet can be plotted in an xy (scatter) chart. Scatter charts show the relationships among the numeric values in several data series, or plots two groups of numbers as one series of xy coordinates.

A scatter chart has two values axes, showing one set of numeric data along the horizontal axis (x-axis) and another along the vertical axis (y-axis). It combines these values into single data points and displays them in irregular intervals, or clusters. Scatter charts are typically used for displaying and comparing numeric values, such as scientific, statistical, and engineering data.



Other charts

Other type of charts as shown in the picture on the right are **Stock charts**, **Surface charts**, **Doughnut charts**, **Bubble charts**, and **Radar charts**.





4.4 EXAMPLE

1. Create the following worksheet and used the formulas as displayed below.

	A	B	C	D	E	F
1	MATHSCOMP CLUB'S BUDGET					
2		Jan	Feb	Mar	Q1 Total	
3	Salaries	\$2,500.00	\$2,500.00	\$2,500.00	\$7,500.00	
4	Benefits	\$625.00	\$625.00	\$625.00	\$1,875.00	
5	Wages	\$10.50	\$12.00	\$11.00	\$33.50	
6	Office Supplies	\$215.00	\$200.00	\$150.00	\$565.00	
7	Software	\$320.00	\$600.00	\$130.00	\$1,050.00	
8	Projects	\$863.00	\$761.00	\$804.00	\$2,428.00	
9						
10	Total Expenses				\$13,451.50	
11						
12						

Formulas to be used:

	A	B	C	D	E
1	MATHSCOMP CLUB'S BUDGET				
2		Jan	Feb	Mar	Q1 Total
3	Salaries	2500	2500	2500	=SUM(B3:D3)
4	Benefits	=B3*0.25	=C3*0.25	=D3*0.25	=SUM(B4:D4)
5	Wages	10.5	12	11	=SUM(B5:D5)
6	Office Supplies	215	200	150	=SUM(B6:D6)
7	Software	320	600	130	=SUM(B7:D7)
8	Projects	863	761	804	=SUM(B8:D8)
9					
10	Total Expenses				=SUM(E3:E8)
11					
12					

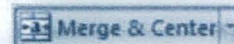


SOLUTION

- Key-in the items as shown below:

	A	B	C	D	E	F
1	MATHSCOMP CLUB'S BUDGET					
2		Jan	Feb	Mar	Q1 Total	
3	Salaries					
4	Benefits					
5	Wages					
6	Office Supplies					
7	Software					
8	Projects					
9						
10	Total Expenses					
11						
12						

- Click on cell **A1**, and drag the mouse to **E1**.
- Click **Home** on the **Ribbon**. Click **Merge & Center**.

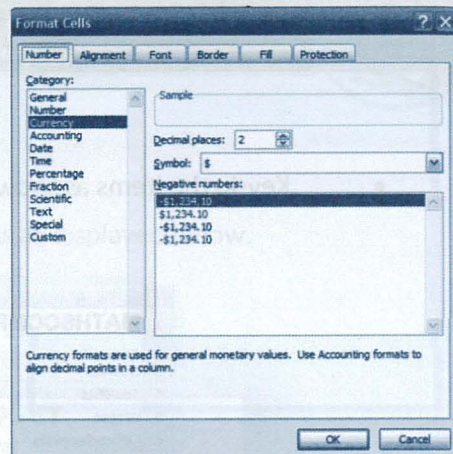


	A	B	C	D	E	F
1	MATHSCOMP CLUB'S BUDGET					

- Click on cell **B3**, and drag the mouse to **E10**.
- Right click on the selected area. Then click **Format Cells**.

	A	B	C	D	E	F
1	MATHSCOMP CLUB'S BUDGET					
2		Jan	Feb	Mar		
3	Salaries					
4	Benefits					
5	Wages					
6	Office Supplies					
7	Software					
8	Projects					
9						
10	Total Expenses					
11						
12						
13						
14						
15						
16						
17						
18						
19						

- **Format Cells** dialog box will appear.
- On the **Number** tab, choose **Currency**.
- Click **OK**.



- Enter the values as shown below:

	A	B	C	D	E
1	MATHSCOMP CLUB'S BUDGET				
2		Jan	Feb	Mar	Q1 Total
3	Salaries	2500	2500	2500	
4	Benefits				
5	Wages	10.5	12	11	
6	Office Supplies	215	200	150	
7	Software	320	600	130	
8	Projects	863	761	804	
9					
10	Total Expenses				
11					

- Click on the cell **B4**.
- Press “ = ” on the keyboard, then click on the cell **B3**, press “ * ” on the keyboard, and type in “ 0.25 “. Then **ENTER**.

B4		fx =B3*0.25			
	A	B	C	D	E
1	MATHSCOMP CLUB'S BUDGET				
2		Jan	Feb	Mar	Q1 Total
3	Salaries	\$2,500.00	\$2,500.00	\$2,500.00	
4	Benefits	\$625.00			
5	Wages	\$10.50	\$12.00	\$11.00	
6	Office Supplies	\$215.00	\$200.00	\$150.00	
7	Software	\$320.00	\$600.00	\$130.00	
8	Projects	\$863.00	\$761.00	\$804.00	
9					
10	Total Expenses				
11					

- Click on the cell **B4**. Position the mouse on the right and bottom on the cell **B4**. Click and drag the mouse to **D4**.

3	Salaries	\$2,500.00	\$2,500.00	\$2,500.00	
4	Benefits	\$625.00	\$625.00	\$625.00	
5	Wages	\$10.50	\$12.00	\$11.00	
6	Office Supplies	\$215.00	\$200.00	\$150.00	
7	Software	\$320.00	\$500.00	\$120.00	

- Click on the cell **E3**.
- Click **Formulas** on the **Ribbon**, then click **Autosum** . Press **ENTER**.
- Click on the cell **E3**. Position the mouse on the right and bottom on the cell **E3**. Click and drag the mouse to **E8**.
- Click on the cell **E10**.
- Click **Formulas** on the **Ribbon**, then click **Autosum** .
- Click on the cell **E3**, then drag the mouse to **E8**. Press **ENTER**.

Click on the cell B4. Position the mouse on the right and bottom of the cell B4. Click

and drag the mouse to D4.

On the Number tab, click the Currency icon.

Click on the cell E3.

Click on the cell E3.

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

Click Formulas on the Ribbon, then click Autosum.

Click on the cell E3. Position the mouse on the right and bottom of the cell E3. Click

and drag the mouse to E8.

Click on the cell E10.

Click Formulas on the Ribbon, then click Autosum.

Click on the cell E3, then drag the mouse to E8. Press ENTER.

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

Click on the cell B4.

Press "=" on the keyboard, then click on the cell B3, press "*" on the keyboard

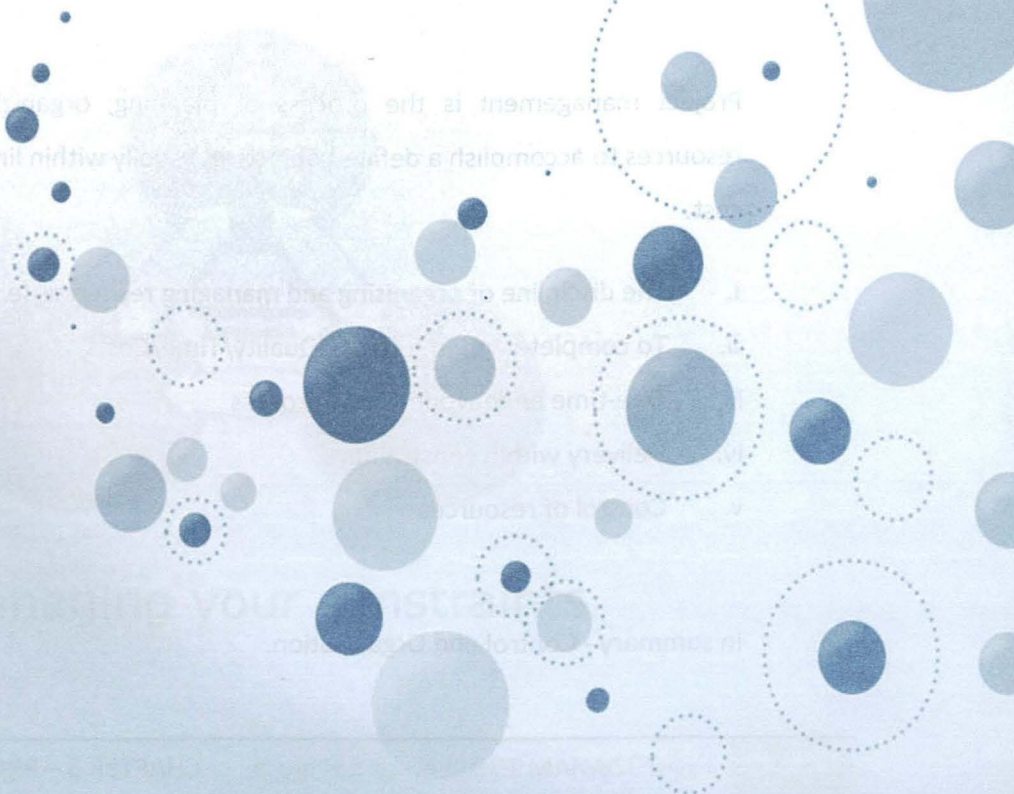
and type in "0.25". Then ENTER.

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

CHAPTER 5:

PROJECT

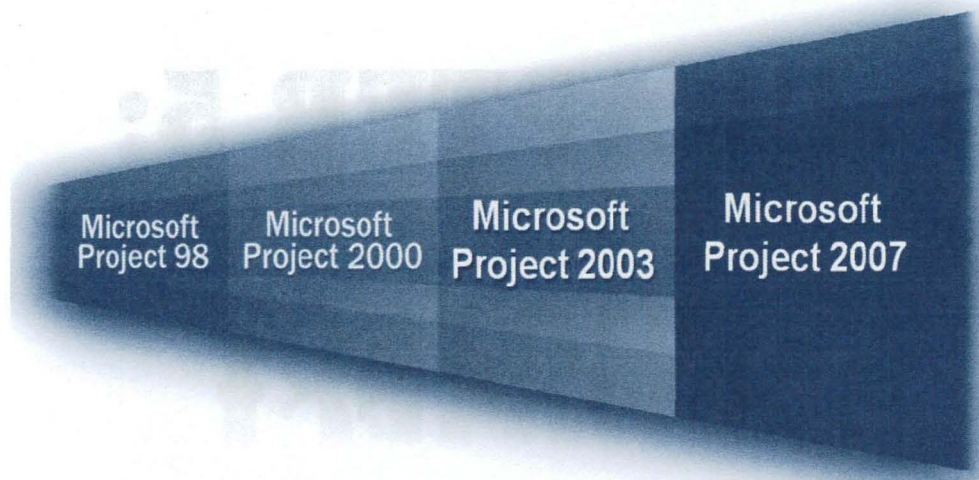
MANAGEMENT





5.0 INTRODUCTION

Microsoft Project is the most effective tools to creating subtasks of project and makes it easy to plan, track, and communicate project information, improving productivity and effectiveness, and helping to ensure that projects are delivered on time and within budget.

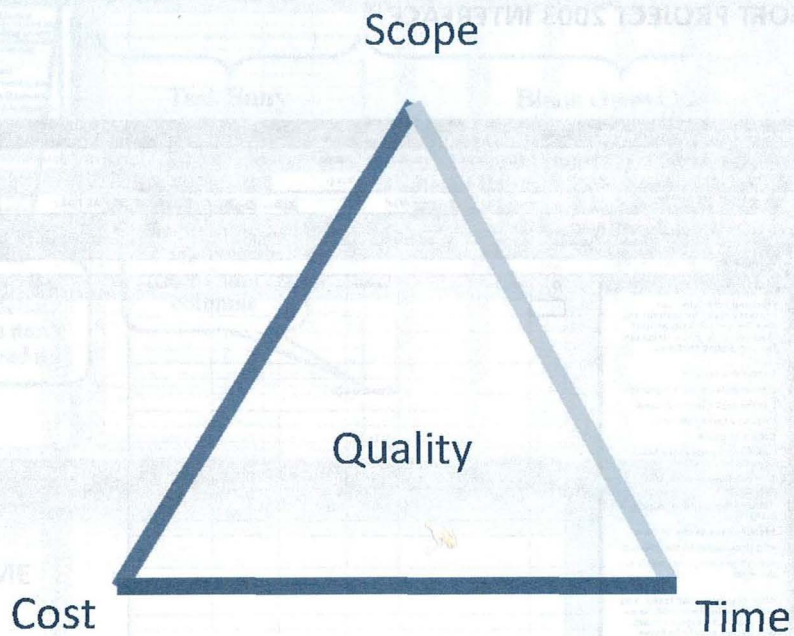
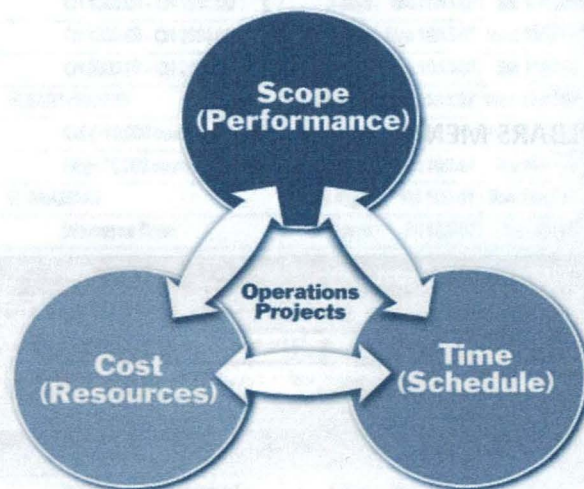


What is Project Management?

Project management is the process of planning, organizing, and managing tasks and resources to accomplish a defined objective, usually within limitations on time, resources, or cost.

- i. The discipline of organising and managing resources (e.g. people)
- ii. To complete within – Scope/Quality/Time/Costs
- iii. One-time endeavour - not a process
- iv. Delivery within constraints
- v. Control of resources

In summary - Control and Organisation.

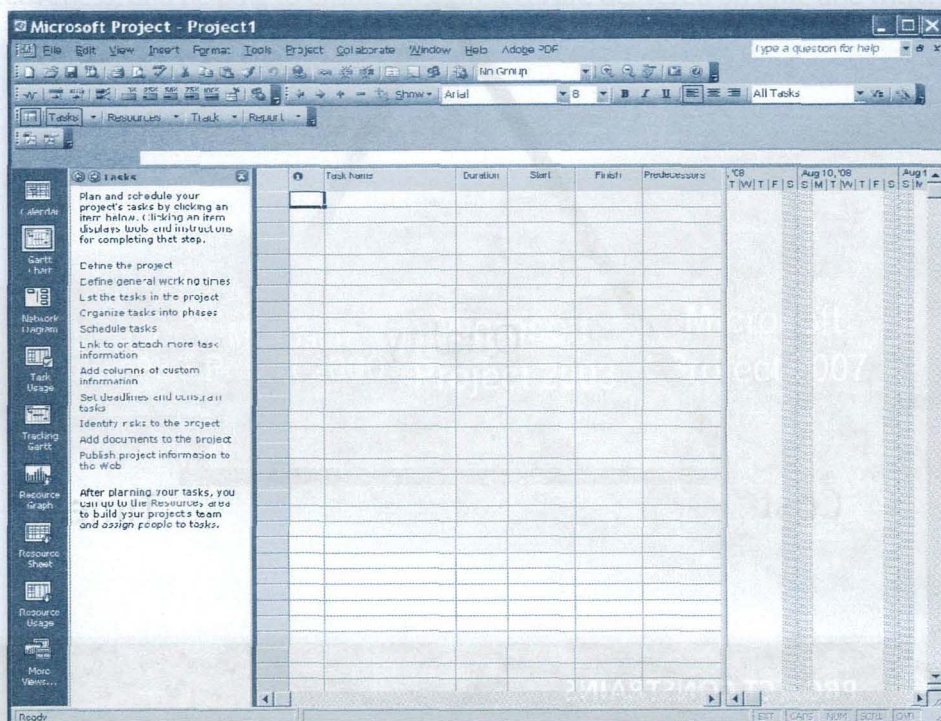
**PROJECT MANAGEMENT TRIANGLE****PROJECT CONSTRAINS**

Managing your constraints

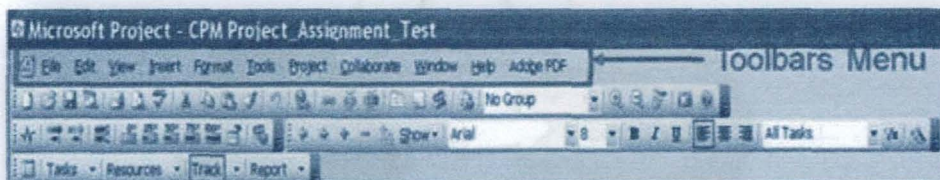


5.1 GETTING STARTED

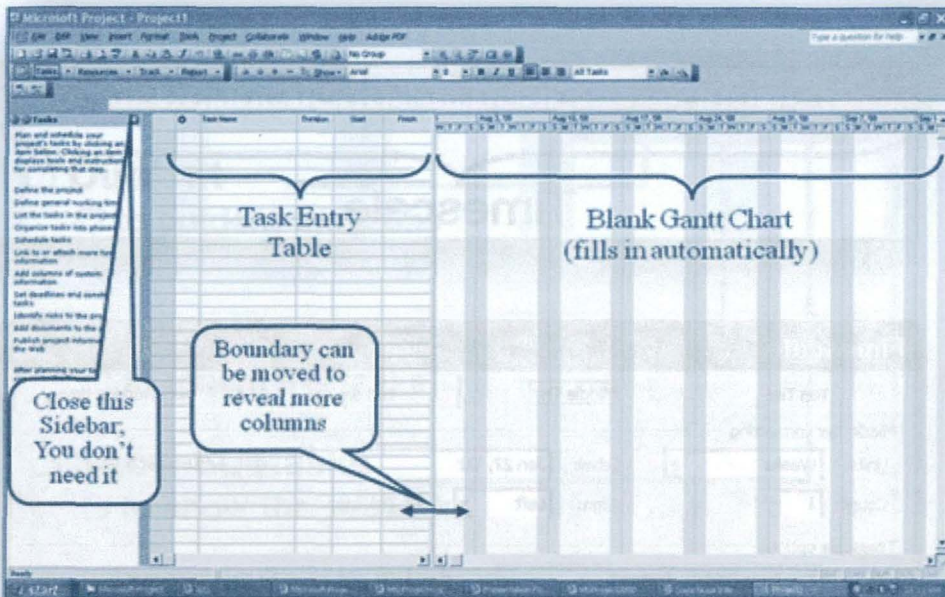
MICROSOFT PROJECT 2003 INTERFACE



STANDARD TOOLBARS MENU



INITIAL STARTUP SCREEN



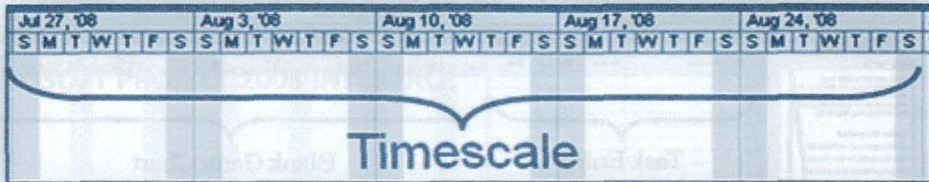
TASK NAME

	Task Name	Duration	Start	Finish
1	START PROJECT	65 days	Mon 10/1/07	Fri 12/14/07
2	SITE CLEARANCE	48 days	Mon 10/1/07	Sat 10/20/07
3	JUNCTION 1	3 days	Mon 10/1/07	Wed 10/3/07
4	CH 0.00 - CH 500.00	3 days	Thu 10/4/07	Sat 10/6/07
5	CH 500.00 - CH 1000.00	3 days	Mon 10/8/07	Wed 10/10/07
6	CH 1000.00 - CH 1500.00	3 days	Thu 10/11/07	Sat 10/13/07
7	CH 1500.00 - CH 2000.00	3 days	Mon 10/15/07	Wed 10/17/07
8	CH 2000.00 - CH 2500.00	3 days	Thu 10/18/07	Sat 10/20/07
9	EARTHWORKS	15 days	Mon 10/1/07	Wed 10/17/07
10	Cut (~19,000 cu.m)	15 days	Mon 10/1/07	Wed 10/17/07
11	Fill (~ 15,000 cu.m)	10 days	Mon 10/1/07	Thu 10/11/07
12	DRAINAGE	16 days	Fri 10/5/07	Tue 10/23/07
13	Interceptor Drain	4 days	Fri 10/5/07	Tue 10/9/07
14	Roadside Drain	3 days	Wed 10/10/07	Fri 10/12/07
15	Subsoil Drain	3 days	Sat 10/13/07	Tue 10/16/07
16	Toe Drain	3 days	Wed 10/17/07	Fri 10/19/07
17	Median Drain	3 days	Sat 10/20/07	Tue 10/23/07
18	CULVERT CH 500	15 days	Wed 10/3/07	Fri 10/19/07
19	Excavation to level	3 days	Wed 10/3/07	Fri 10/5/07
20	Filling of sand or granular materi	3 days	Sat 10/6/07	Tue 10/9/07
21	Installation of pipes culvert	3 days	Wed 10/10/07	Fri 10/12/07
22	Filling with selected material	2 days	Sat 10/13/07	Mon 10/15/07
23	construction of wingwall	2 days	Tue 10/16/07	Wed 10/17/07
24	Gabion & stone pitching	2 days	Thu 10/18/07	Fri 10/19/07

Task

Sub Task

TIMESCALE



Timescale

Top Tier | **Middle Tier** | Bottom Tier | Non-working time

Middle tier formatting

Units: Label: ☒ Use fiscal year

Court: Align: ☒ Tick lines

Timescale options

Show: Size: % ☒ Scale separator

Preview

Jul 27, '08	Aug 3, '08	Aug 10, '08	Aug 17, '08	Aug 24, '08
S	M	T	W	T
F	S	S	M	T
W	T	F	S	S
T	F	S	S	M
F	S	S	M	T
S	M	T	W	T

Help OK Cancel

PROJECT CALENDAR

t1

Tools | Project | Collaborate | Window | Help

- Spelling... F7
- AutoCorrect Options...
- Shared Workspace
- Links Between Projects...
- Import Outlook Tasks...
- Change Working Time...**
- Assign Resources... Alt+F10
- Build Team from Enterprise... Ctrl+T
- Substitute Resources...
- Resource Sharing
- Level Resources...
- Tracking
- Macro
- Organizer...
- Customize
- Options...
- Enterprise Options

Change Working Time

For:

Set working time for selected date(s)

Legend:

- ☐ Working
- ☐ Nonworking
- ☐ Edited working hours

On this calendar:

- ☒ Edits to a day of the week
- ☐ Edits to an individual day

Select Date(s):

August 2008						
S	M	T	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Set selected date(s) to:

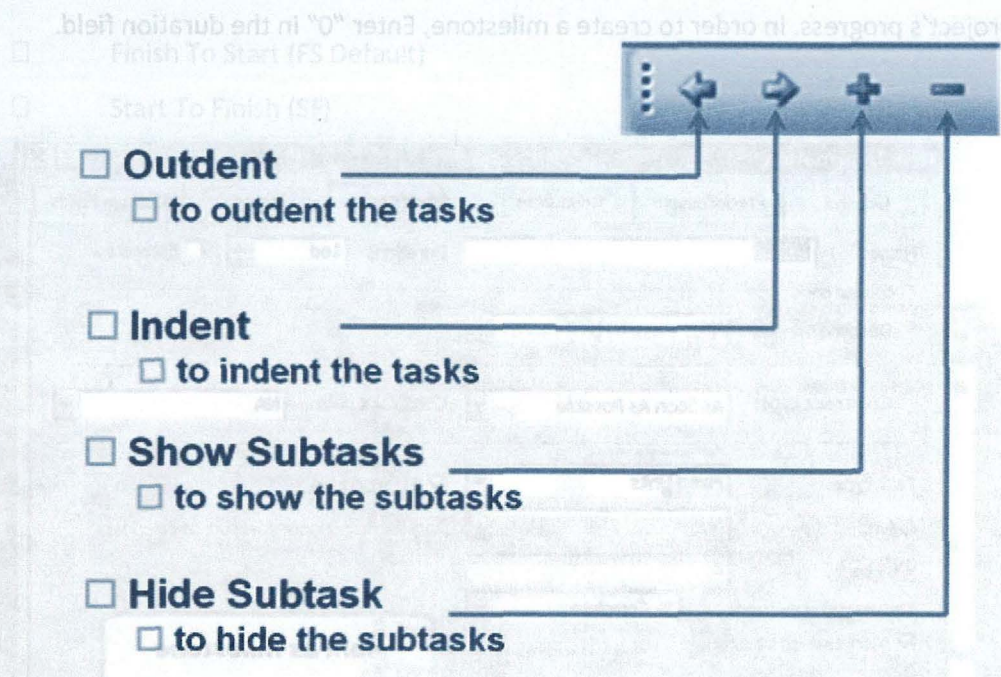
- ☒ Use default
- ☒ Nonworking time
- ☐ Nondefault working time

From: To:

Help New... Options... OK Cancel

TASK DEPENDENCIES

HIDE AND SHOW TASK



STANDARD MARKERS

- ☐ **Normal Task**
 - ☐ designates ordinary task duration
- ☐ **Summary Bar**
 - ☐ designates the duration of a group of sub task
- ☐ **Critical Bar**
 - ☐ designates the task that have critical activity

MILESTONES

Milestones are a reference point marking a major event in a project and used to monitor the project's progress. In order to create a milestone, Enter "0" in the duration field.

Task Information

General | Predecessors | Resources | Advanced | Notes | Custom Fields

Name: Task 2 Duration: 1ed ☒ Estimated

Constrain task

Deadline: NA

Constraint type: As Soon As Possible Constraint date: NA

Task type: Fixed Units ☒ Effort driven

Calendar: None ☐ Scheduling ignores resource calendars

WBS code: 2

Earned value method: % Complete

☒ Mark task as milestone

Mark as milestone

Help OK Cancel

BAR STYLES

Task	Appearance	Show For ... Tasks	Row	From	To
Task		Normal	1	Start	Finish
Split		Normal, Split	1	Start	Finish
Progress		Normal	1	Actual Start	Complete Through
Milestone	◆	Milestone	1	Start	Start
Summary		Summary	1	Start	Finish
Project Summary		Project Summary	1	Start	Finish

Text | Bars

Start Middle End

Shape: Type: Color: Shape: Pattern: Color: Shape: Type: Color:

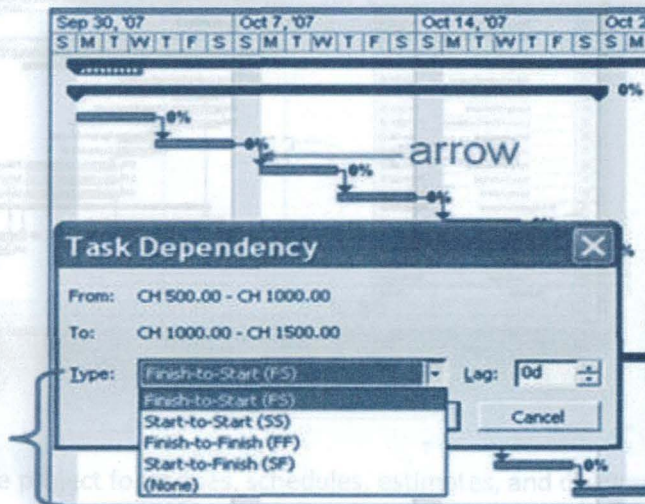
Help OK Cancel

TASK DEPENDENCIES

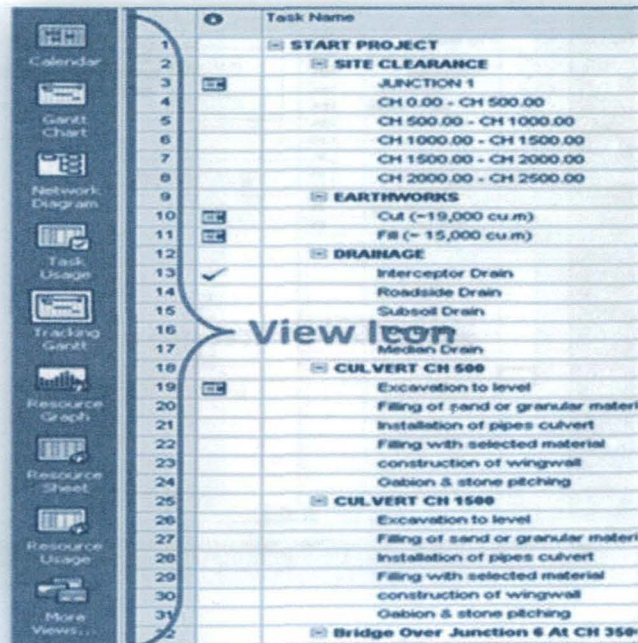
Predecessors:

- ☐ Finish To Start (FS Default)
- ☐ Start To Finish (SF)
- ☐ Start To Start (SS)
- ☐ Finish To Finish (FF Rarely Used)

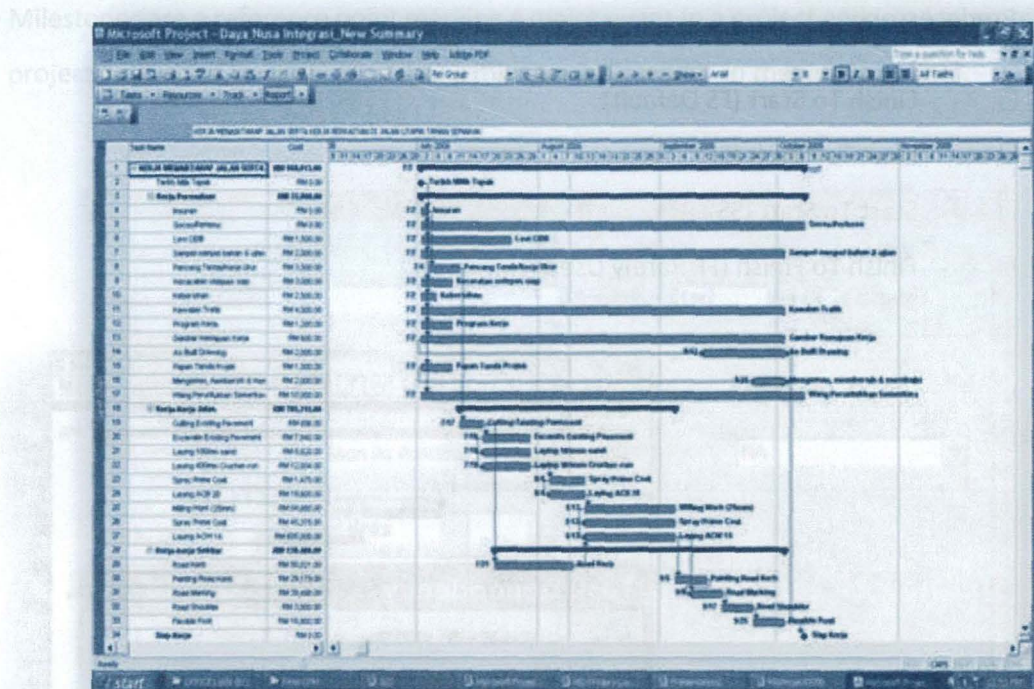
Predecessors



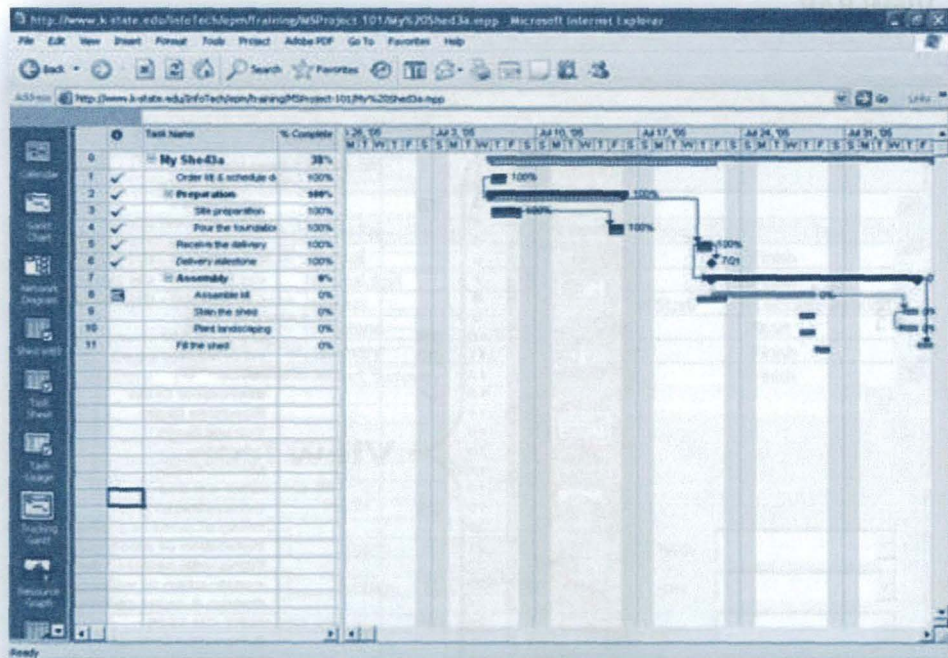
VIEW BAR



GANTT CHART VIEW



TRACKING GANTT





5.2 WORK BREAKDOWN STRUCTURE (WBS)

A work breakdown structure is a deliverable-oriented grouping of project elements that organizes and defines the total scope of the project.

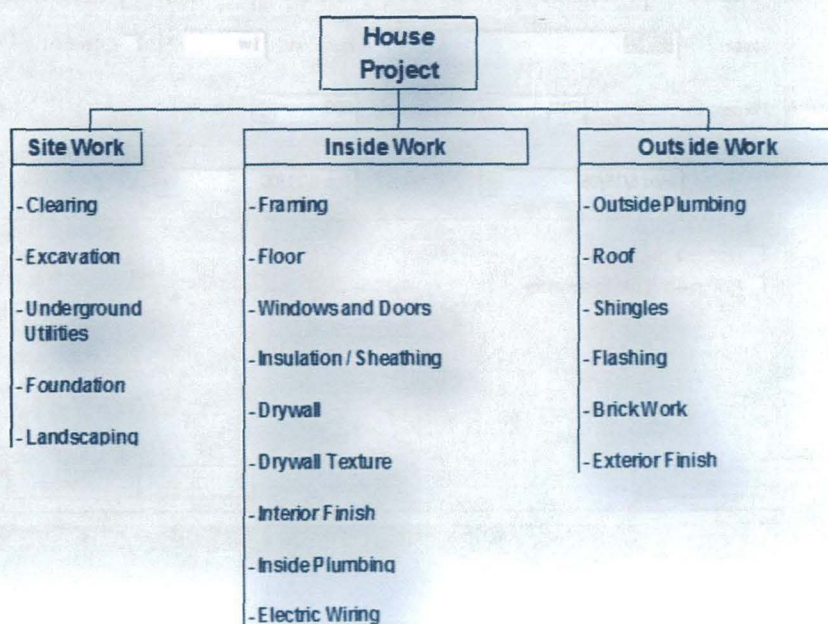
Plus, it provides an organizational project structure for input to MS Project for scheduling purposes. Breakdown can be based on:

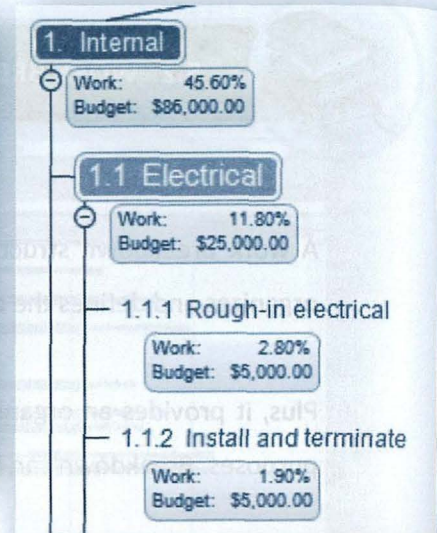
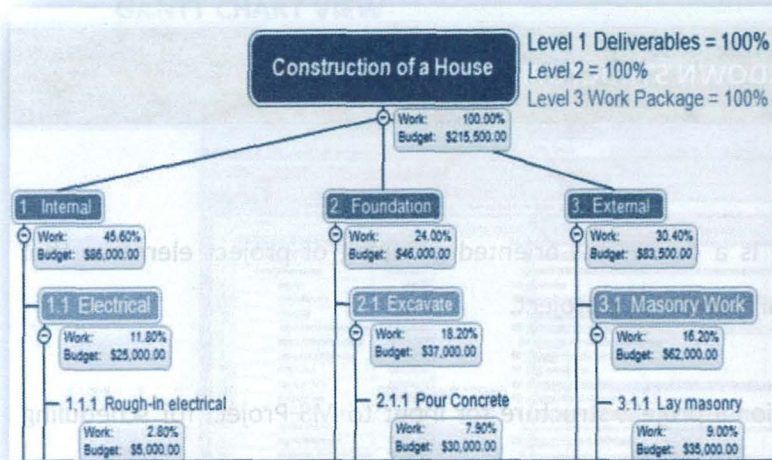
- i. Contract strategy (disciplines)
- ii. Areas of the project
- iii. Sequence of work
- iv. Other

WBS is used to organize the project for scopes, schedules, estimates, and charges.



EXAMPLE OF WBS





5.3 TASK INFORMATION

TASK INFORMATION FORM

Task Information

General | Predecessors | Resources | Advanced | Notes | Custom Fields

Name: Task 1 Duration: 1w ☐ Estimated

Percent complete: 50% Priority: 500

Dates

Start: Wed 6/15/05 Finish: Tue 6/21/05

☐ Hide task bar

☐ Roll up Gantt bar to summary

Help OK Cancel

[illegible]

Task Information

General | Predecessors | Resources | Advanced | Notes | Custom Fields

Name: Task 1 Duration: 1 day Estimated ☒

Constrain task ☐

Deadline:

Constraint type: Finish-to-Finish Constraint date: 1 day

Task type: Fixed Duration Effort driven ☒

Calendar: Scheduling ignores resource calendars ☒

WBS code:

Earned value method:

☒ Mark task as milestone

Help OK Cancel

TASK TYPES

- i. Fixed units – tasks where the resources are a fixed value and changes to the amount of work or the duration do not affect the resources.
- ii. Fixed work – tasks where the amount of work is a fixed value and changes to the duration or the number of resources do not affect the work.
- iii. Fixed duration (recommended) – tasks where the duration is a fixed value and changes to the work or the resources don't affect the duration.
- iv. Effort Driven – the duration of a task shortens or lengthens as resources are added or removed from a task while the effort (work) remains the same.

Task Information

General | Predecessors | Resources | Advanced | **Notes** | Custom Fields

Name: Duration: ☐ Estimated

Notes:

A



5.4 EXAMPLE

MANAGING TASK

- Foundation
- Concrete Form
- Pour Concrete
- Structure
- Interior Finishing
- Framing
- Walls
- Mechanical
- Electrical
- Roofing
- Exterior Finishing
- Hang Doors
- Install Windows

- i. Create a Gantt chart based on the tasks given by using Microsoft Project.
- ii. Insert word "Dry" at the beginning of Walls task.
- iii. Change the Structure task to Structure Phase task.
- iv. Enter the task notes "*The Foundation Phase must be completed before Monsoon season*" for Foundation task.
- v. Delete Interior Finishing task.
- vi. Move Roofing task under Dry Walls task.
- vii. Insert some new task before Electrical task:
 - Heating
 - Air Conditioning
 - Plumbing

viii. Assign the outline task as below:

- Concrete Form and Pour Concrete
- Framing, Dry Walls and Roofing
- Heating, Air Conditioning, Plumbing and Electrical
- Hang Doors and Install Windows

TIME MANAGEMENT

i. The project must start on 18/7/2012.

ii. Set the duration for each task as below:

- Concrete Form = 3d
- Pour Concrete = 7h
- Framing = 2w
- Dry Walls = 2.4w
- Roofing = 10d
- Heating = 36h
- Air Conditioning = 36h
- Plumbing = 2.5w
- Electrical = 2w
- Hang Doors = 16h
- Install Windows = 7d

iii. Set the link for the tasks as below:

- Concrete Form and Pour Concrete
- Pour Concrete and Structure Phase
- Framing and Dry Walls
- Framing and Roofing
- Framing and Mechanical

RESOURCE MANAGEMENT

- i. Create a resource pool as below:

Resource Name	Type	Initials	Max Unit	Std Rate
Masons	Work	Masons	200	35/h
Carpenter	Work	Cptr	500	25/h
Plumbers	Work	PL	300	45/h
Electrician	Work	EL	100	50/h
Labourers	Work	LB	1,000	10.5/h

Resource Name	Type	Initials	Cost/Use
Mixer	Material	MXR	500.00
Beam	Material	B	600.00

- ii. Create a resource calendar based on the resource pool given above.

Name	From	To
MasonCal	9.00 AM	12.00 PM
	1.00 PM	5.00 PM
CarpenterCal	9.30 AM	12.00 PM
	1.00 PM	5.30 PM
PlumbersCal	7.00 AM	12.00 PM
	1.00 PM	4.00 PM
ElectricianCal	8.00 AM	12.00 PM
	1.00 PM	5.00 PM
LabourersCal	7.30 AM	12.00 PM
	1.00 PM	4.30 PM

- iii. Assign each task based on the suitable resources.

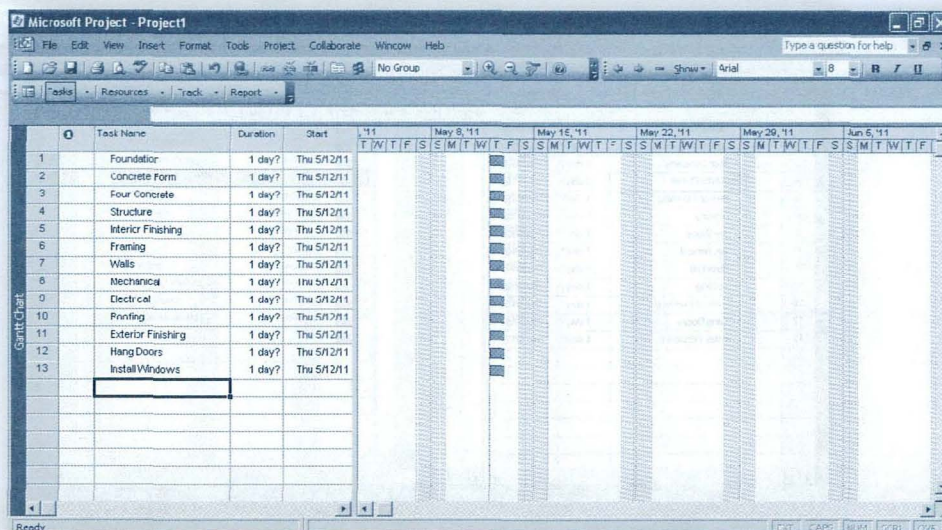
Concrete Form	Mason	200%
Pour Concrete	Mason	
Plumbing	Plumbers	200%
Framing	Labourers	
Dry Walls	Labourers	
Roofing	Labourers	
Hang Doors	Carpenter	
Install Windows	Carpenter	
Electrical	Electrician	
Pour Concrete	Mixer	
Roofing	Beam	

- iv. Shows the project's percent (%) complete.
 v. Show the critical path?
 vi. How long does it take to complete the project?
 vii. Save the project as EXERCISE (MS PROJECT) in your class data storage.



SOLUTION

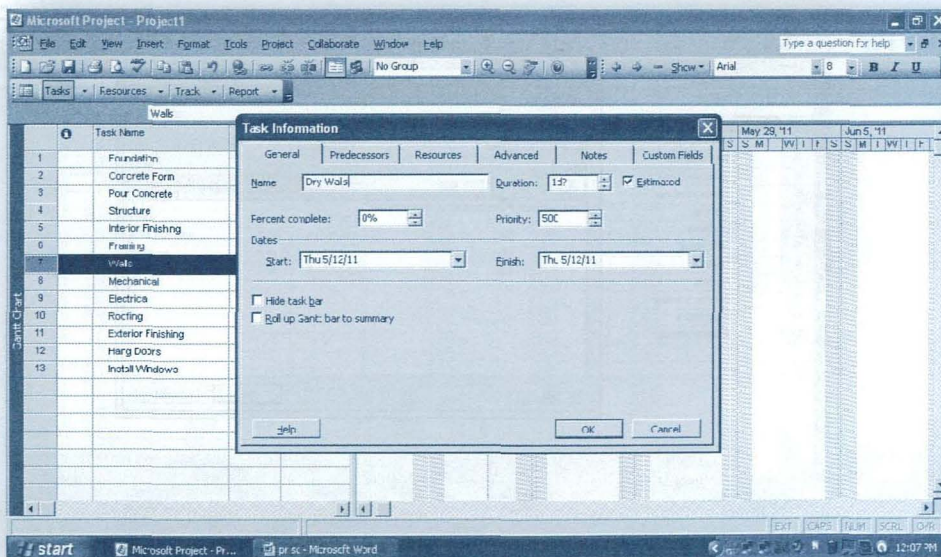
Step 1: Type the task in the Task Name field as below.



Step 2: Double-click the Walls task name field to display Task Information dialog box.

Click the General tab.

Type the word 'Dry' in the Name field.

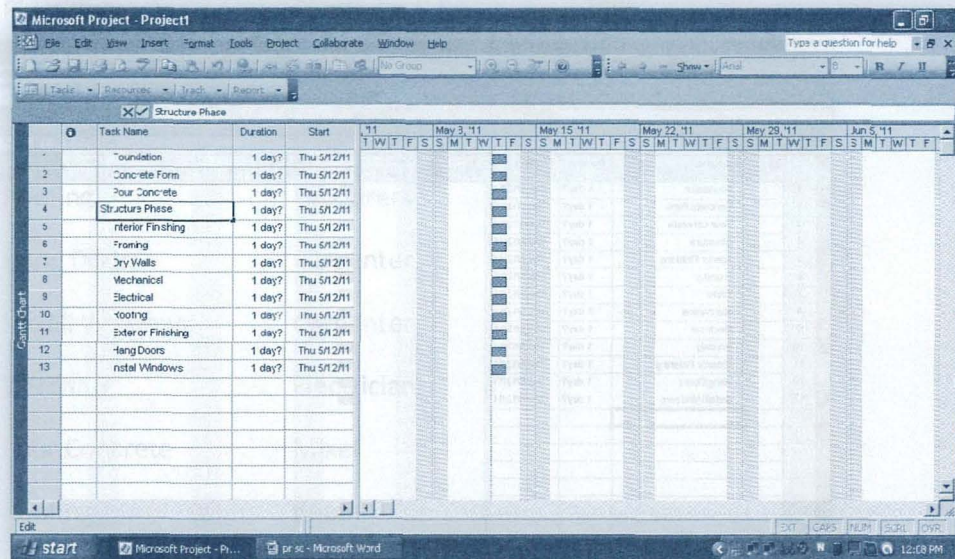


Then, click OK.

Step 3: Place the mouse cursor on the Structure task name field,

Press the F2 key on your keyboard,

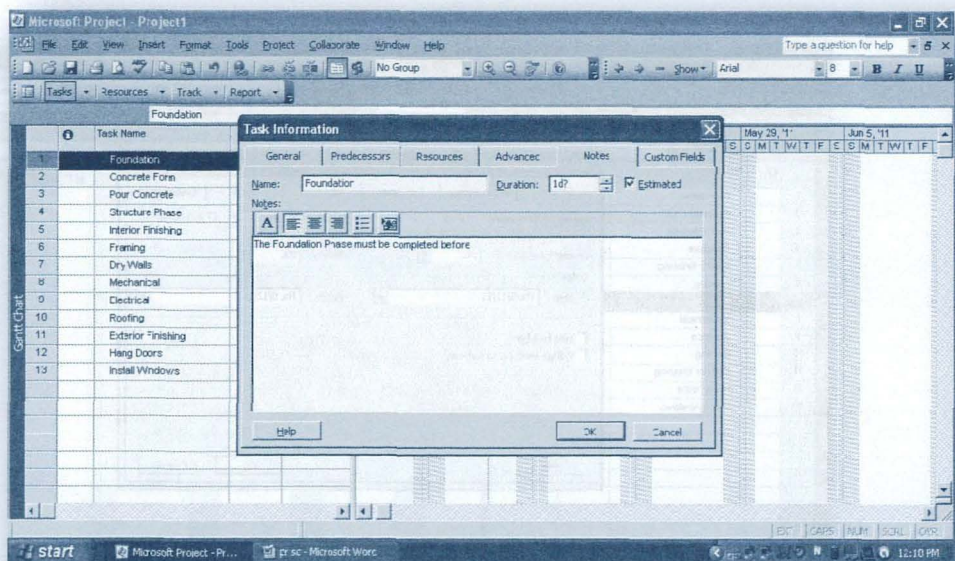
Type the word 'Phase'.



Step 4: Double-click the Foundation task name field.

Click the Notes tab.

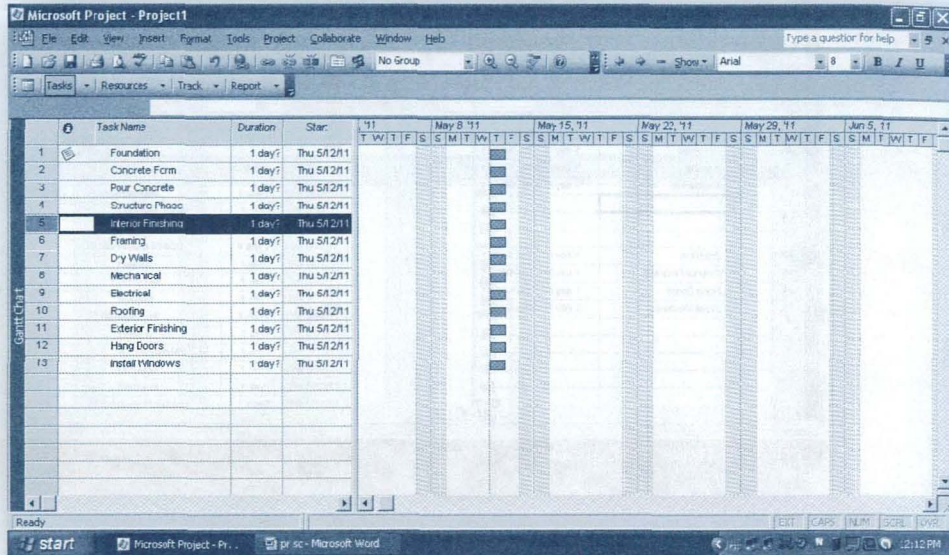
Type the notes "The Foundation Phase must be completed before Monsoon season" in the notes field.



Then, click OK.

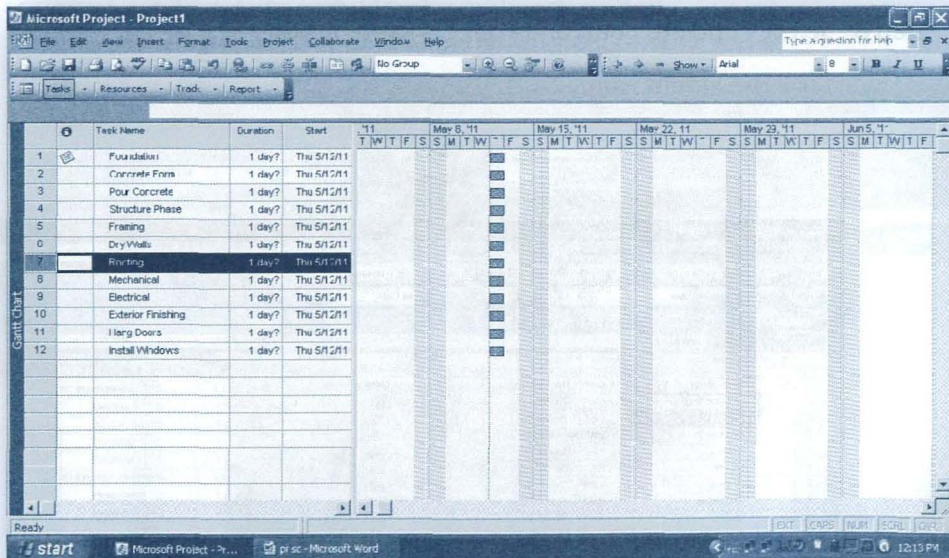
Step 5: Click on no. 5 to select row 5 (Interior Finishing).

Press the Delete key on your keyboard.



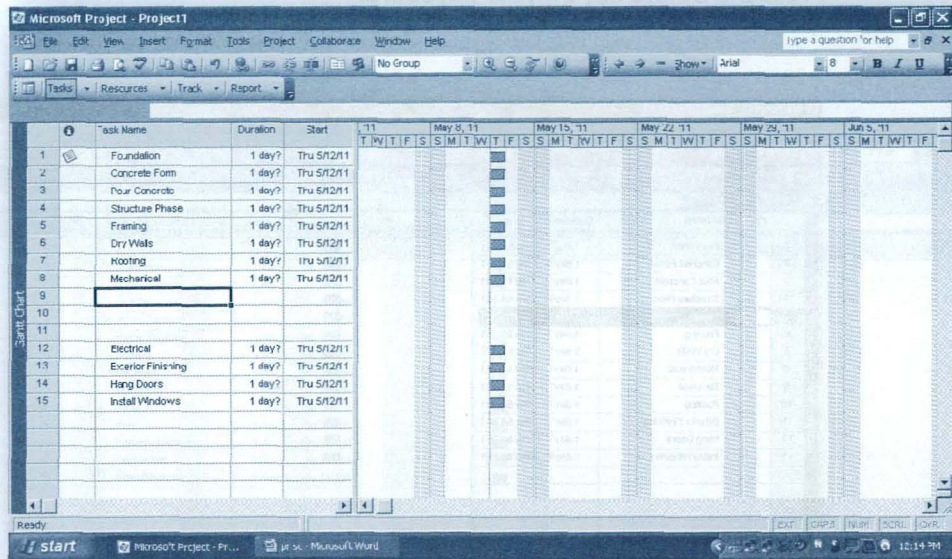
Step 6: Select row 10 (Roofing).

Next, drag the pointer under Dry Walls task.



Step 7: Place the mouse cursor on the Electrical task name field.

Press the Insert key on your keyboard 3 times.

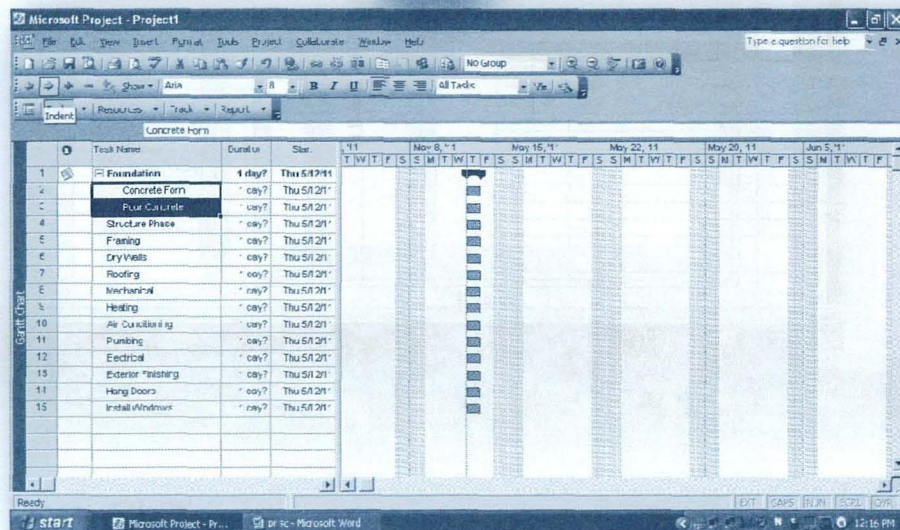


Type new task below in each empty task name:

- Heating
- Air Conditioning
- Plumbing

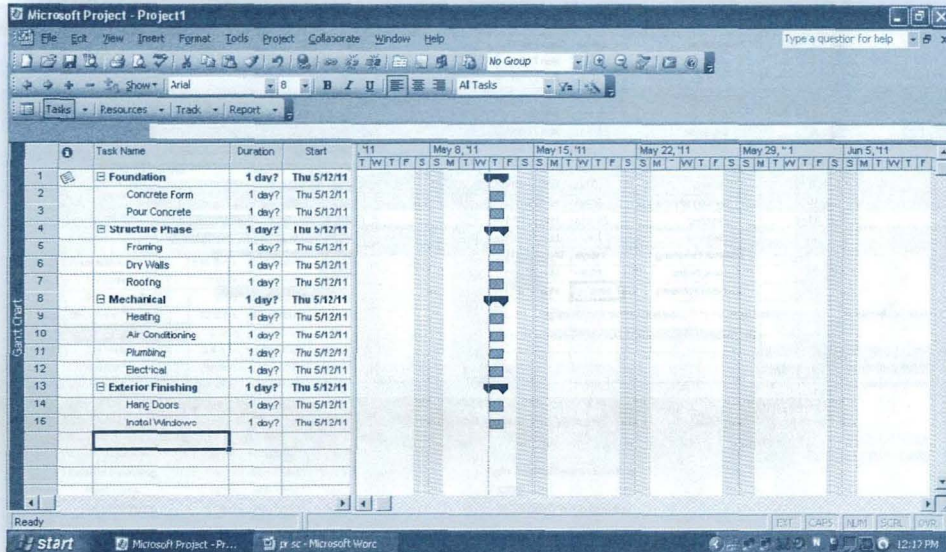
Step 8: Select Concrete Form and Pour Concrete tasks.

Click the Indent icon.



REDO the step for:

- Framing, Dry Walls and Roofing
- Heating, Air Conditioning, Plumbing and Electrical
- Hang Doors and Install Windows

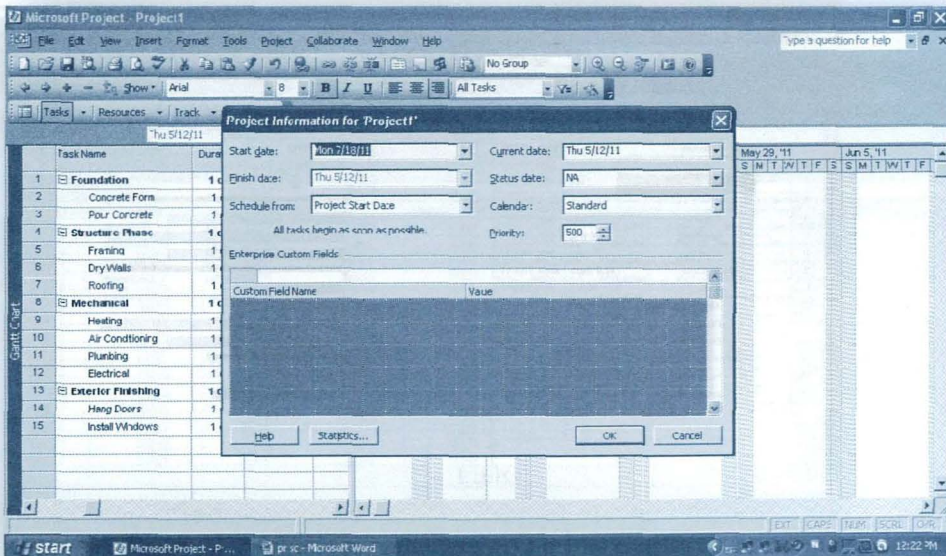


Step9: Click the Project menu.

Select the Project Information to display Project Information dialog box.

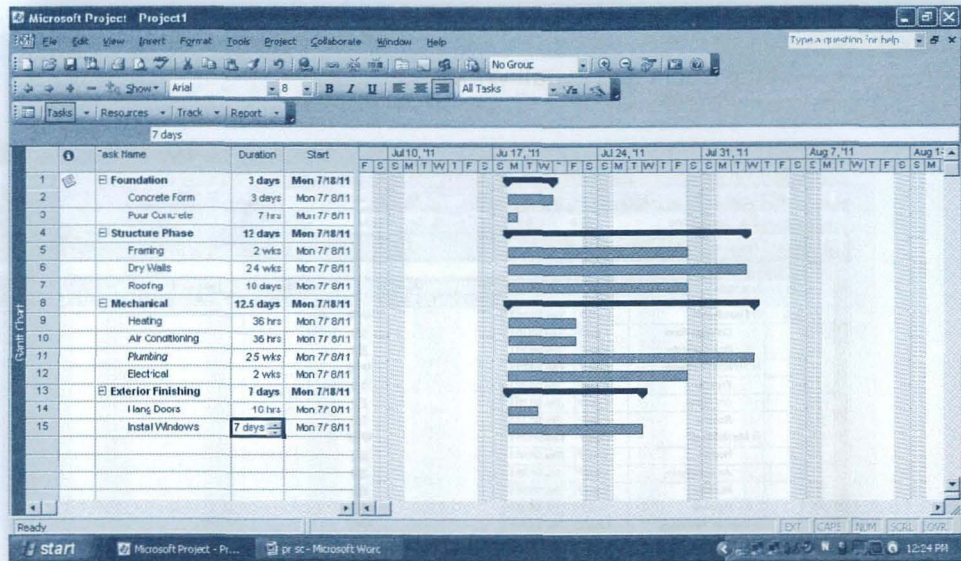
Step 12: Enter 18/7/2012 in the Start date field.

Make sure Schedule from field is the Project Start Date.



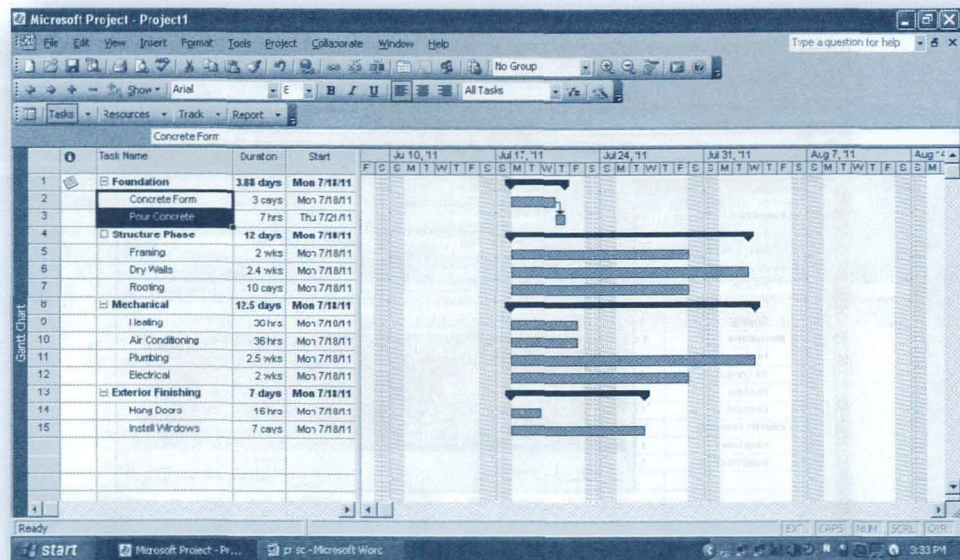
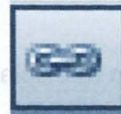
Then, click OK.

Step 10: Enter the duration for each task as below.



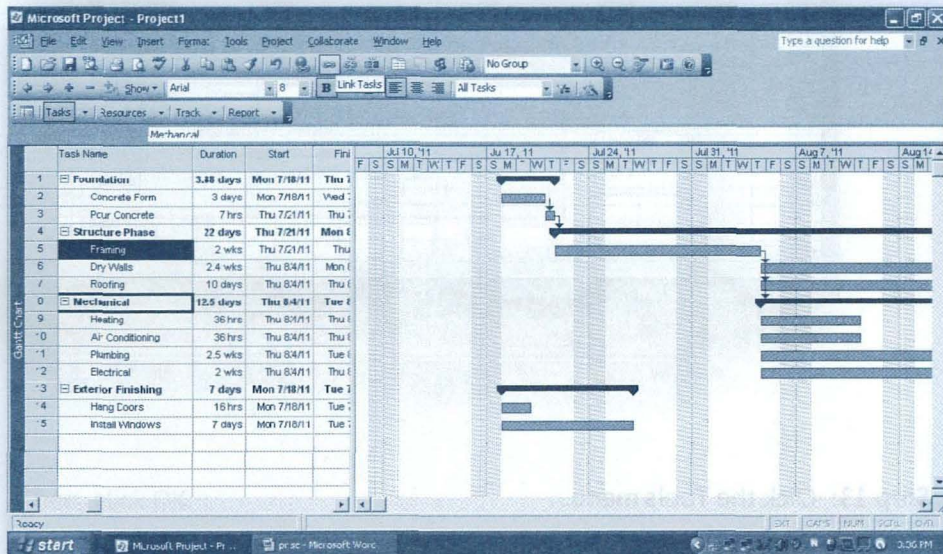
Step 11: Select Concrete Form and Pour Concrete tasks.

Click the Link Task icon.



REDO the step for:

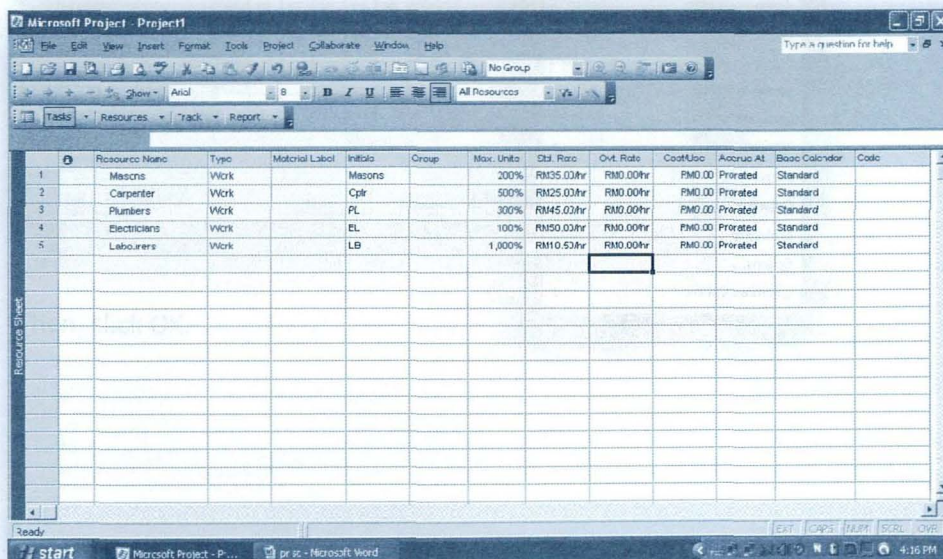
- Pour Concrete and Structure Phase
- Framing and Dry Walls
- Framing and Roofing
- Framing and Mechanical

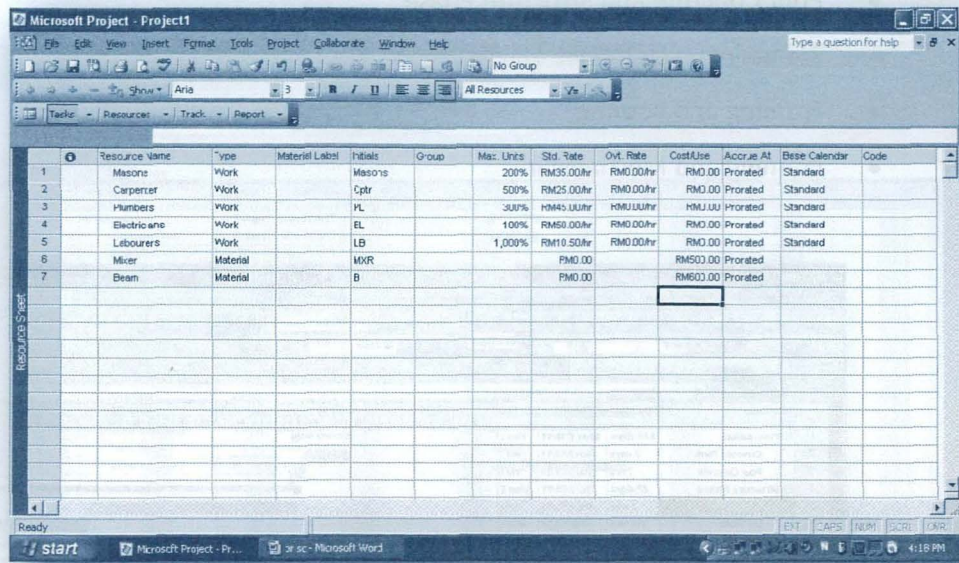


Step 12: Click the View menu.

Select the Resource Sheet.

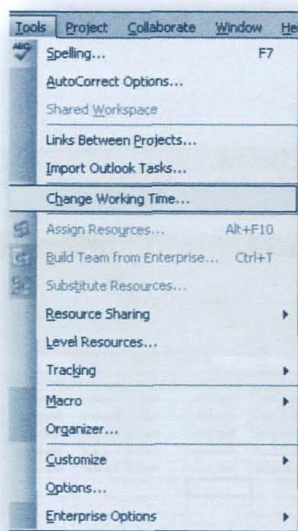
Type the resource in the Resource Sheet as below.





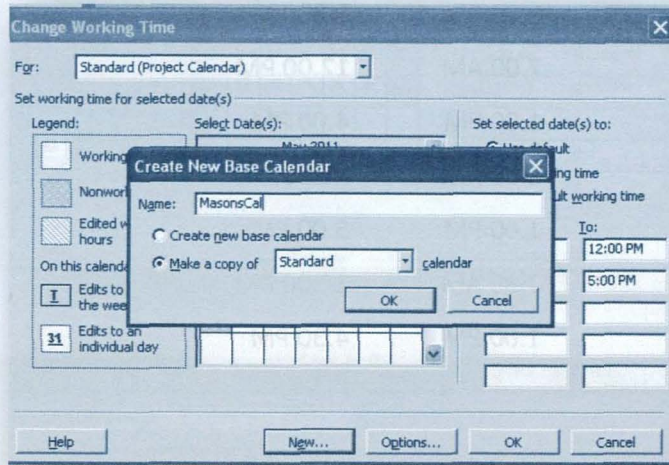
Step 13: Click the Tools menu.

Select the Change Working Time.



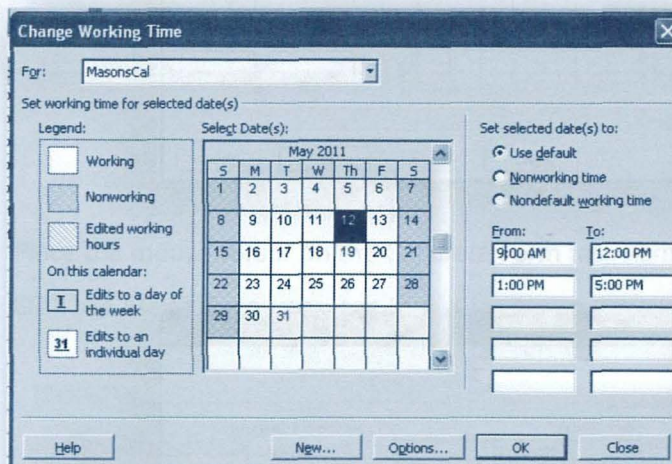
Click the New button.

Type "MasonsCal" in the Name field.



Then, click OK.

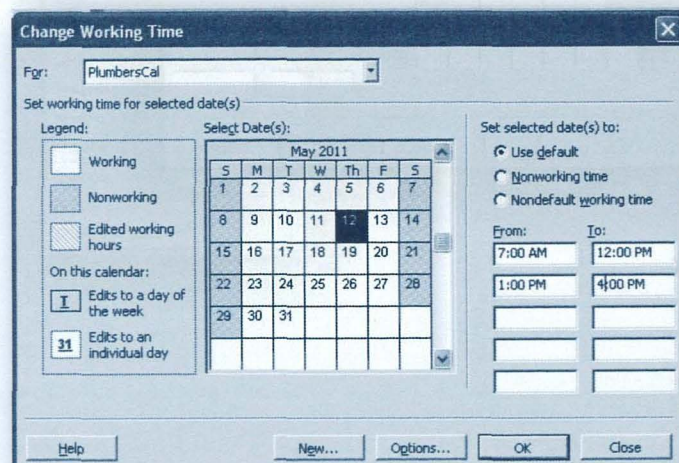
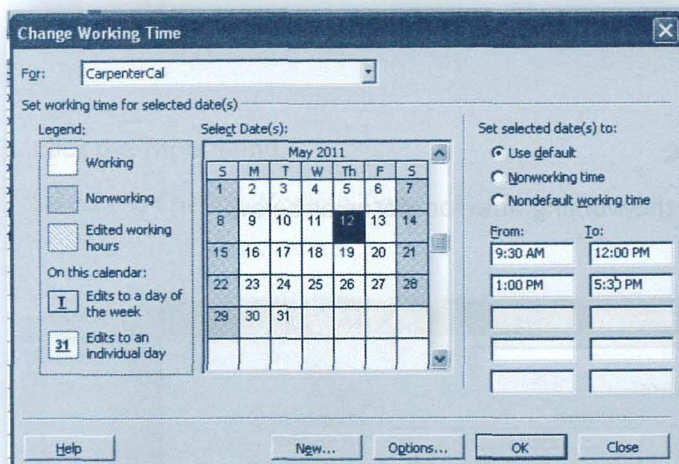
Next, change the working time for Mason as below.



Then, click OK.

REDO the step for:

Name	From	To
CarpenterCal	9.30 AM	12.00 PM
	1.00 PM	5.30 PM
PlumbersCal	7.00 AM	12.00 PM
	1.00 PM	4.00 PM
ElectricianCal	8.00 AM	12.00 PM
	1.00 PM	5.00 PM
LabourersCal	7.30 AM	12.00 PM
	1.00 PM	4.30 PM



Change Working Time

For: ElectriciansCal

Set working time for selected date(s)

Legend:

- ☐ Working
- ☐ Nonworking
- ☒ Edited working hours

On this calendar:

- ☒ Edits to a day of the week
- ☐ Edits to an individual day

Select Date(s):

October 2012

S	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Set selected date(s) to:

- ☒ Use default
- ☐ Nonworking time
- ☐ Nondefault working time

From: 8:00 AM To: 12:00 PM

1:00 PM 5:00 PM

Help New... Options... OK Close

Change Working Time

For: LabourersCal

Set working time for selected date(s)

Legend:

- ☐ Working
- ☐ Nonworking
- ☒ Edited working hours

On this calendar:

- ☒ Edits to a day of the week
- ☐ Edits to an individual day

Select Date(s):

May 2011

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Set selected date(s) to:

- ☐ Use default
- ☐ Nonworking time
- ☒ Nondefault working time

From: 7:30 AM To: 12:00 PM

1:00 PM 4:30 PM

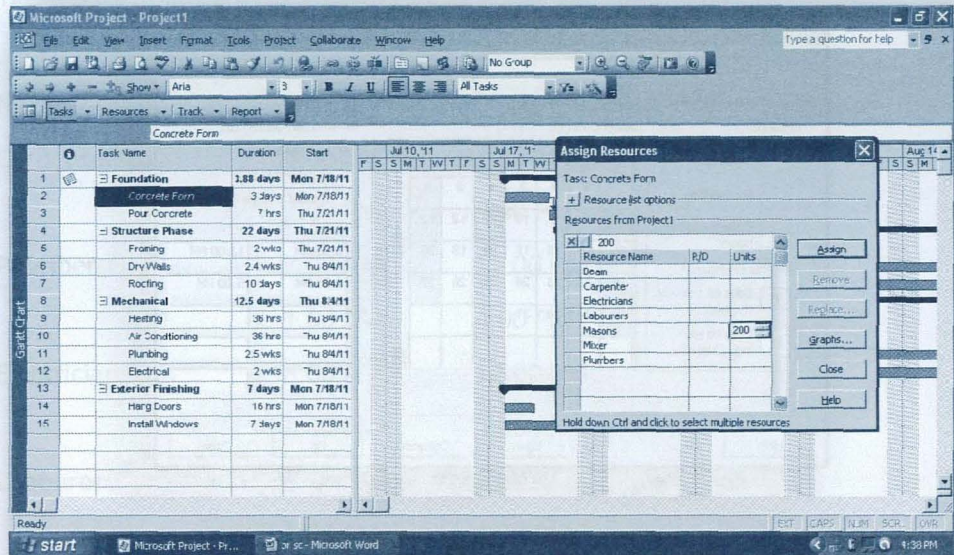
Help New... Options... OK Close

Step 14: Place the mouse cursor on the Concrete Form task name field.

Click the Assign Resources icon to display Assign Resources dialog box.



Choose Masons as resources and change the units to 200%.



Then, click Assign.

REDO the step for:

Pour Concrete	Mason	
Plumbing	Plumbers	200%
Framing	Labourers	
Dry Walls	Labourers	
Roofing	Labourers	
Hang Doors	Carpenter	
Install Windows	Carpenter	
Electrical	Electrician	
Pour Concrete	Mixer	
Roofing	Beam	

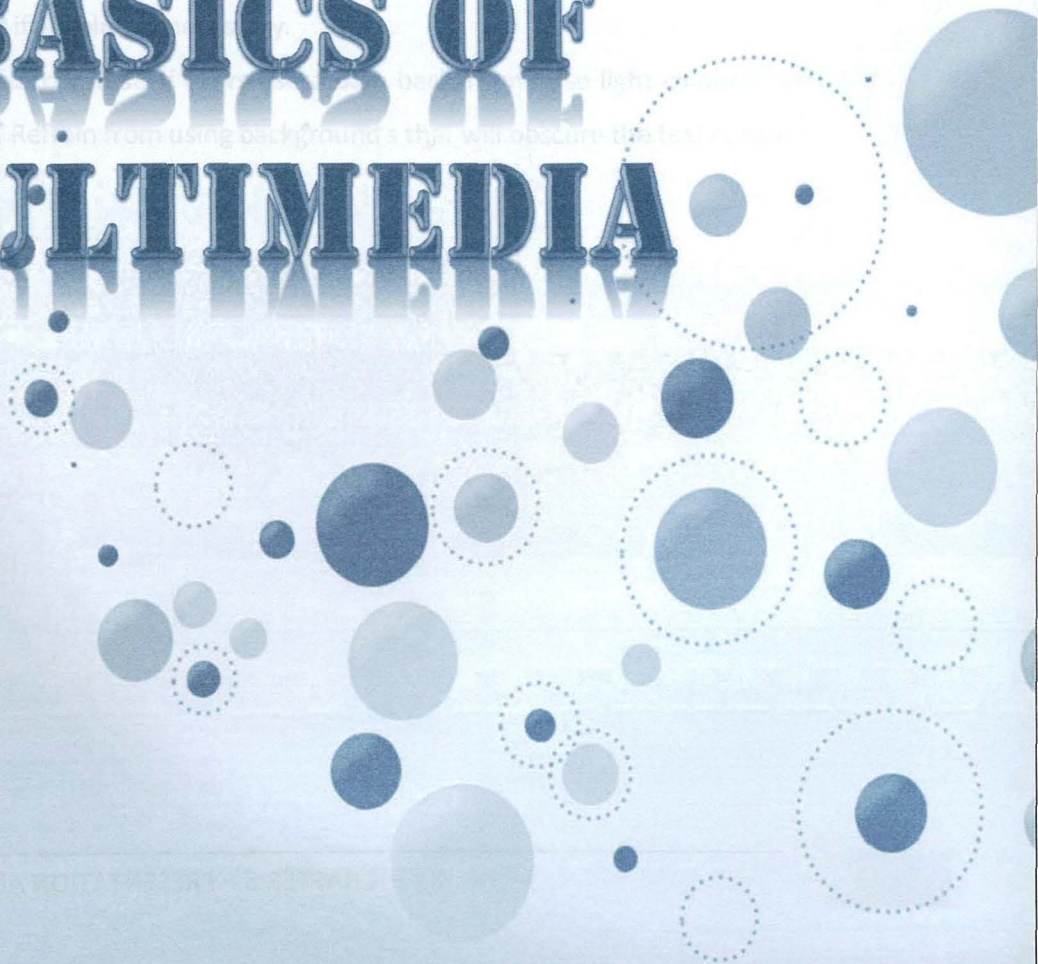
Step 15: Save in your class data storage.

Type the file name EXERCISE (MS PROJECT).

CHAPTER 6: PRESENTATION



BASICS OF MULTIMEDIA





6.0 INTRODUCTION

Presentation is a practice of showing and explaining the content of a topic to an audience or learner. A presentation program such as Microsoft PowerPoint is often used to generate the presentation content. Meanwhile multimedia is a combination of text, graphics, animation, audio and video which is a result of computer based technology or other electronic media. A presentation becomes interactive when users are able to control the element of media that are required.



6.1 PRESENTATION

INTRODUCTION OF PRESENTATION

PowerPoint is currently the most common software used for making visual aids for presentations. This step by step project oriented tutorial will teach user the basic tools for making a PowerPoint presentation and familiarize with the new PowerPoint 2010 workspace.

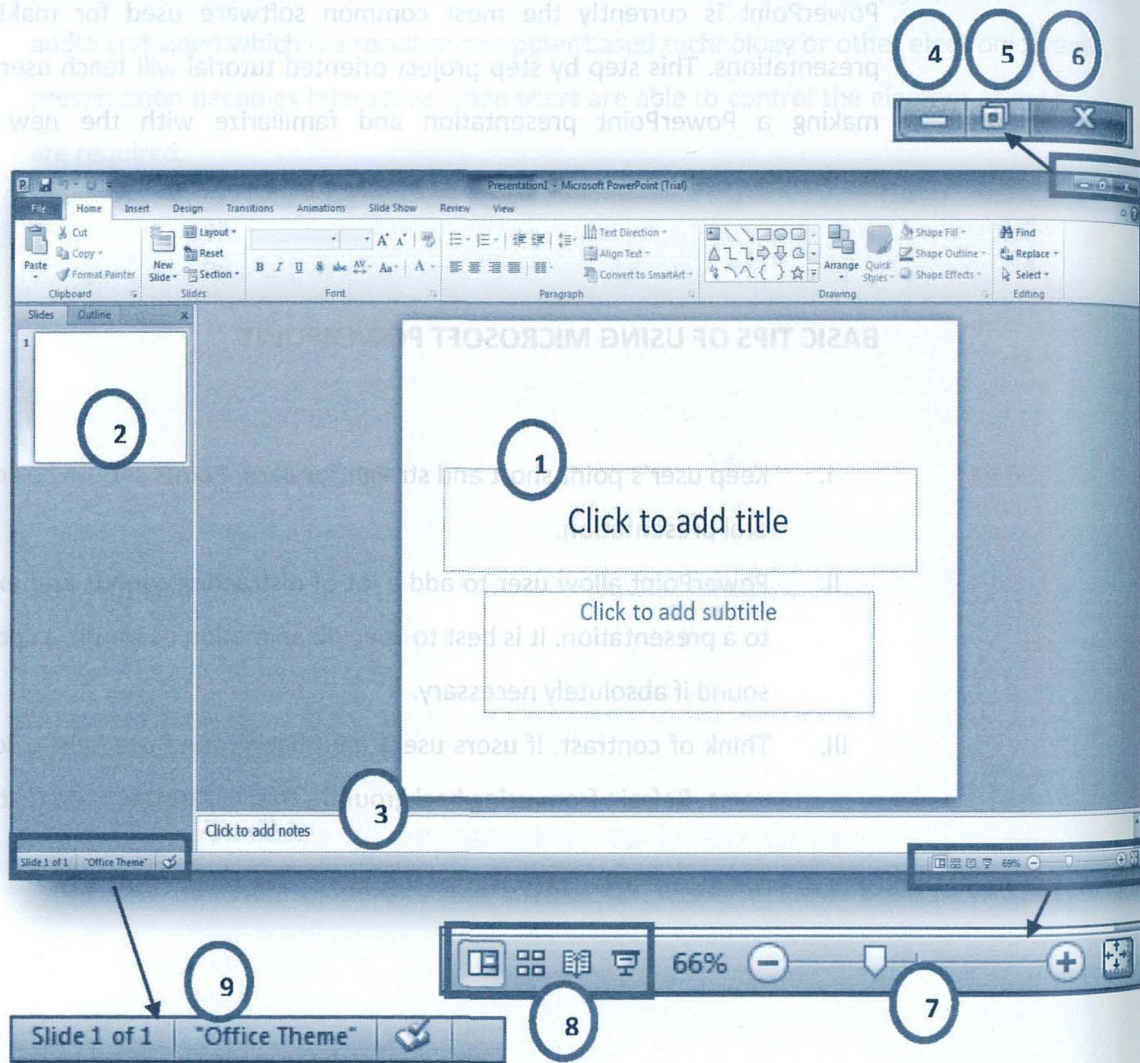
BASIC TIPS OF USING MICROSOFT POWERPOINT

- I. Keep user's point short and straightforward. Points should be complimentary to an oral presentation.
- II. PowerPoint allow user to add a lot of distracting sounds and excessive animations to a presentation. It is best to keep all animation as simple as possible and only use sound if absolutely necessary.
- III. Think of contrast. If users use a dark background use light-coloured text and vice versa. Refrain from using background s that will obscure the text colour.



GETTING STARTED

To begin this lesson, open Microsoft PowerPoint 2010. The Microsoft Word window appears and the screen looks similar to the one shown here.



1. **Placeholders** - This is where you type your text.
2. **Thumbnail** - versions of the slides in your presentation; the slide you're working will be highlighted.
3. **Notes pane** - this is where you type speaker notes that you can refer to when you present. You can also print speaker notes to use when presenting a slide show.
4. **Minimize Button** - To minimize the window.

5. **Maximize/Restore Button** – To maximize or restore the window.
6. **Close Button** – To exit the window.
7. **Zoom** – To zoom in and zoom out the slide.
8. **View Button** – To view the presentation in Normal View, Slide Sorter View, Reading View or Slide Show View.

i. **Normal View**



Normal View split user screen into three major sections, the outline and slides tab, the slide pane and the note area.

ii. **Slide Sorter View**



Slide Sorter View show thumbnails of all slides. In Slide Sorter View user can easily add, delete or change their order of slides.

iii. **Reading View**



Reading view Reading view is similar to Slide Show view because in both views, the slide is shown in full screen. However, in Reading view you also see the PowerPoint title bar and the status bar at the top and bottom of the interface respectively. Reading view is not only useful to quickly navigate the slide show, but also have easy access to the Windows task bar at the same time to switch to other available open programs or windows.

iv. **Slide Show View**



When your presentation has been created, it is time to show it in front of an audience. Slide Show View plays your presentation in full screen.



THE QUICK ACCESS TOOLBAR

The **Quick Access toolbar** is located above the ribbon. The Quick Access toolbar provides user with access that frequently use. By default Save, Undo, and Redo appear on the Quick Access toolbar. User can use Save to save a file, Undo to rollback an action user have taken, and Redo to reapply an action user have rolled back. User can add other commands to make it more convenient for them.



THE TITLE BAR

Next to the Quick Access toolbar is the **Title bar**. The Title bar displays the title of the document on which user is currently working. By default, PowerPoint names presentations sequentially, starting with Presentation1. When user saves their file, User can change the name of their presentation.

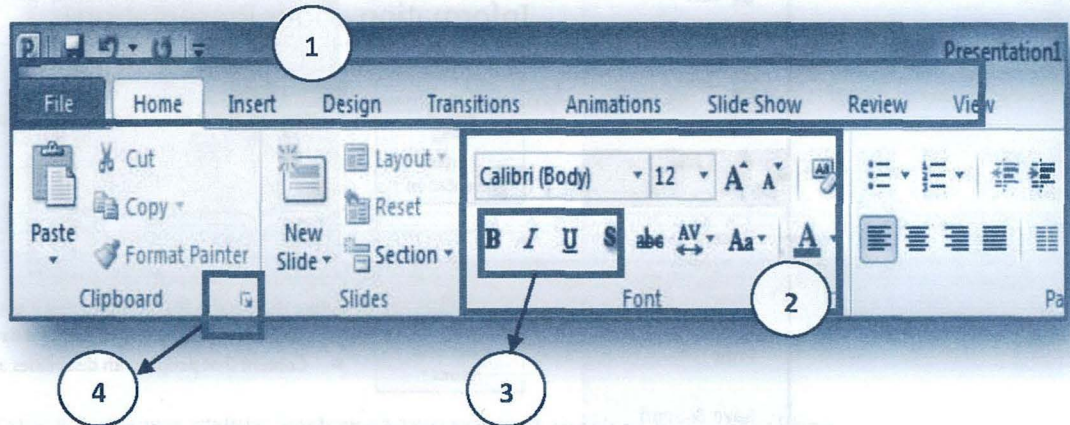
Presentation1 - Microsoft PowerPoint (Trial)





THE RIBBON

User will use commands to tell Microsoft PowerPoint what to do. In Microsoft PowerPoint 2010, user uses the tabbed Ribbon system to issue commands. The Ribbon is located near the top of the screen, below the Quick Access toolbar. At the top of the Ribbon are multiple tabs; each with several groups of commands and user can add their own tabs that contain their favourite commands. User can click buttons to issue commands or to access menus and dialog boxes.

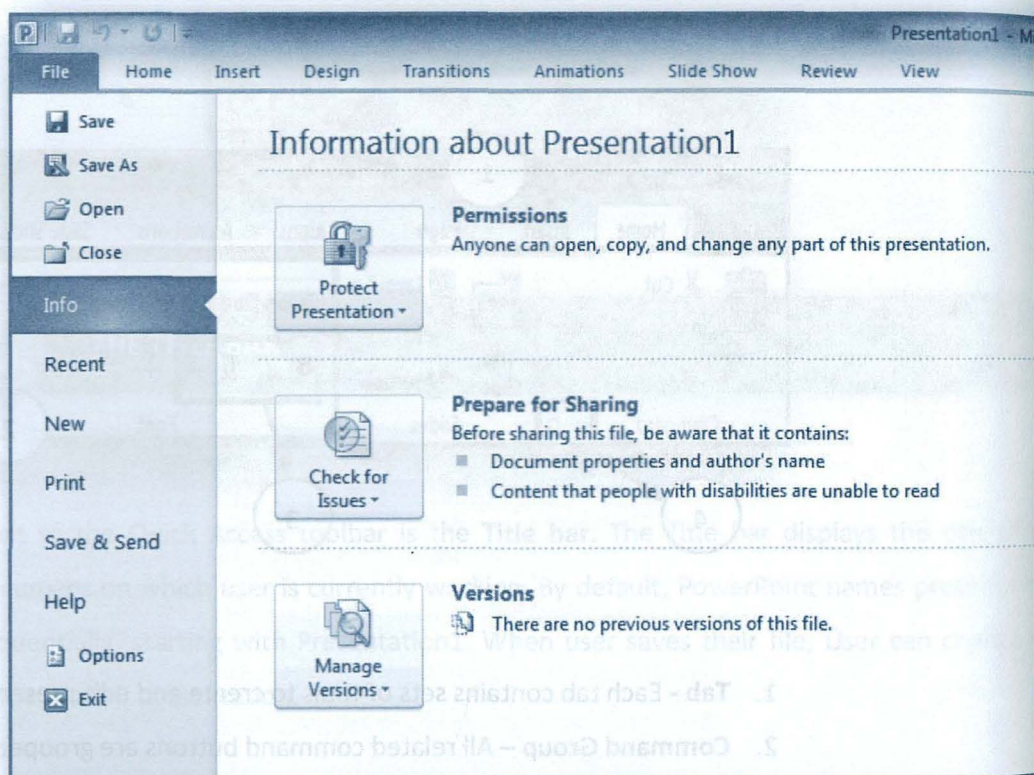


1. **Tab** - Each tab contains sets of tools to create and edit presentations.
2. **Command Group** – All related command buttons are grouped in one group.
3. **Command Button** - Button used to format slide.
4. **Dialog Launcher** - is a small square with an arrow in the lower right corner of several Groups within the Ribbon tabs.



BACKSTAGE VIEW

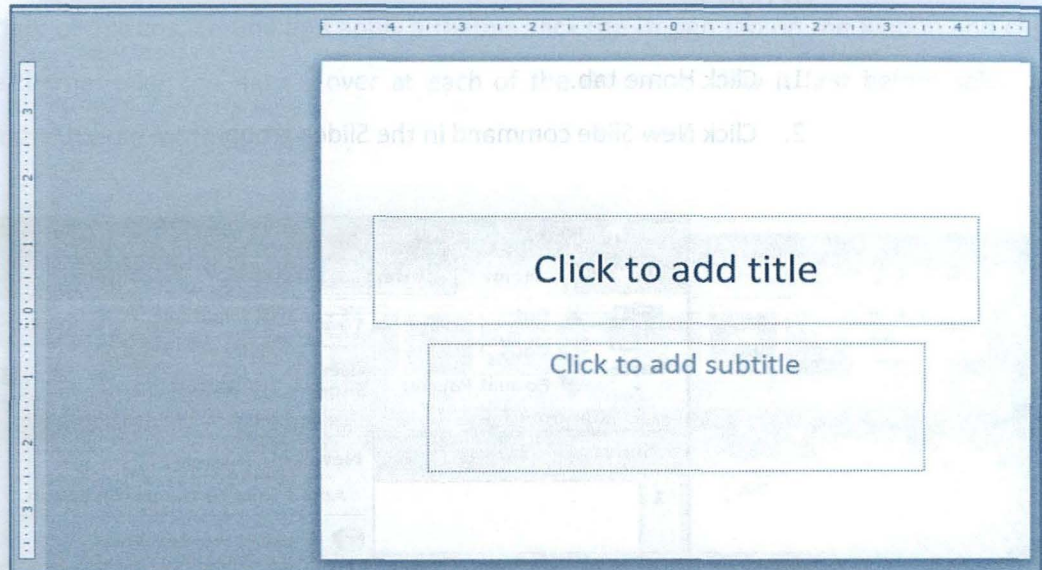
Backstage view gives user various options for saving, opening a file, printing or sharing your document. It is similar to the Office Button Menu from Microsoft PowerPoint 2007. However, instead of just a menu, it is a full page view which makes it easier to work with. To get to Backstage View, click the File tab.



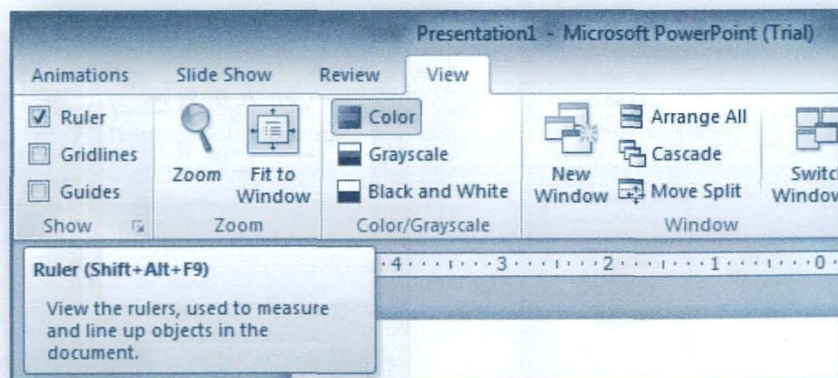


THE RULER

The ruler is vertical and horizontal guides. User can use ruler to determine where they want to place an object.



If the ruler is not visible, click the View tab and check at Ruler checkbox.



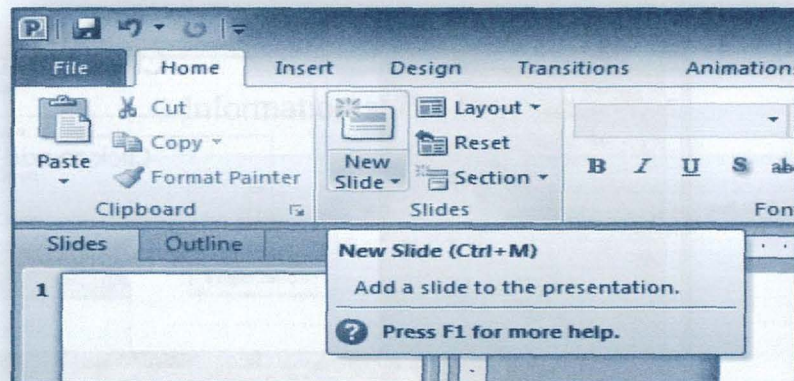


ADD NEW SLIDE

When you open a new PowerPoint document you will only see one slide. In order to add more slides you need to create them, to do this you have a few options.

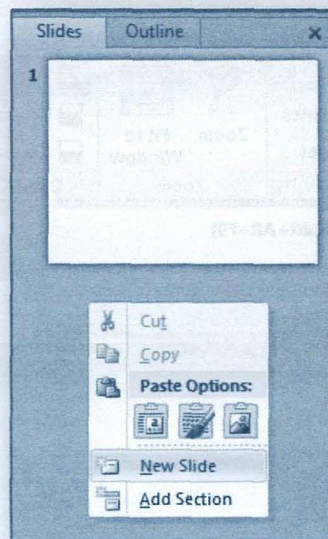
OPTION 1:

1. Click Home tab.
2. Click New Slide command in the Slides group.



OPTION 2:

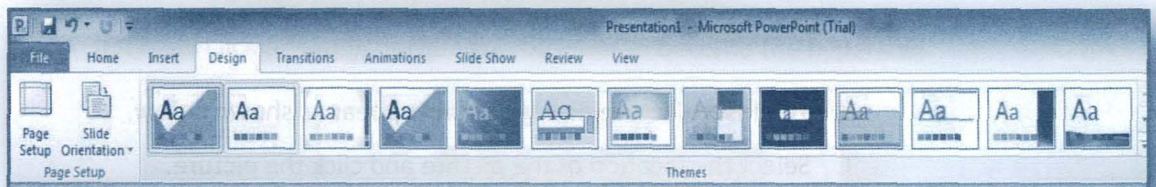
1. Right click at the slide pane.
2. Click New Slide command.





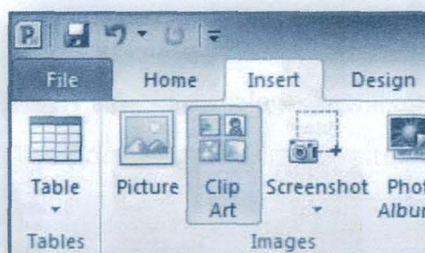
ADDING DESIGN THEME

A theme includes a background design, colour scheme, font types, font sizes, and placeholder positions in one package. Every new presentation starts with the default theme which is a white background and black text. However user can change the theme to a wide variety of options. To find and apply a theme, click the Design tab on the Ribbon and chose the theme. User can mouse over at each of the theme to view it first before select the suitable theme for their slide.

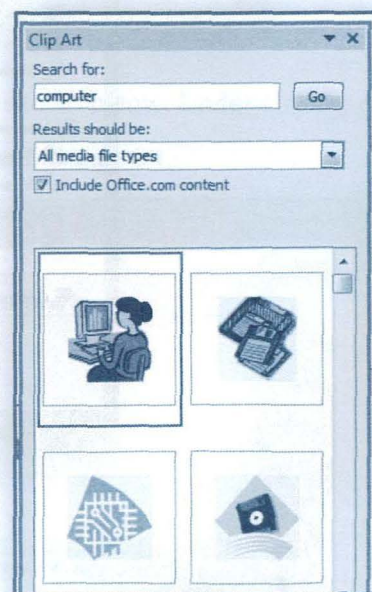


INSERTING CLIP ART

1. Go to Insert tab and click on the Clip Art command.



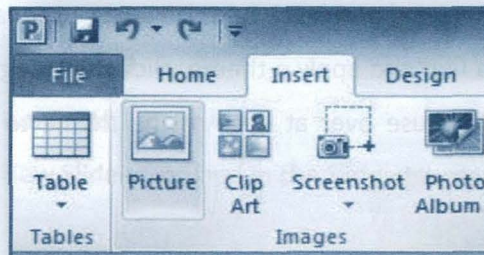
2. The Clip Art task pane will then open on the right. Type a keyword in the Search for box that suggests the type of clips you may want. Select the clip art that you want by click at the clip.



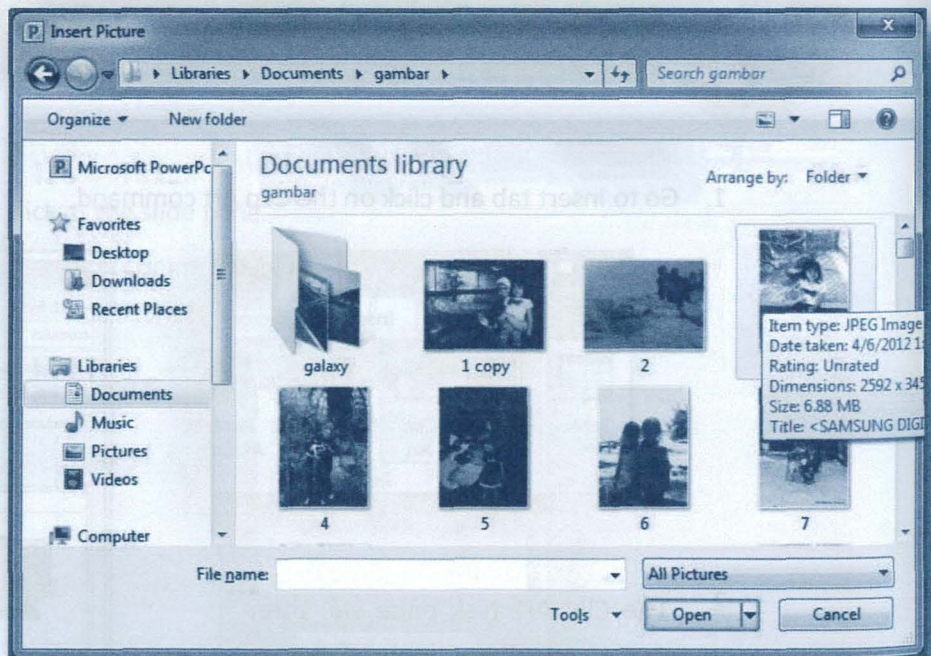


INSERTING PICTURE

1. Go to Insert tab and click on the Picture command.



2. The Insert Picture dialog box will appear as shown below.
3. Select the location of the picture and click the picture.
4. The picture will appear on the slide.



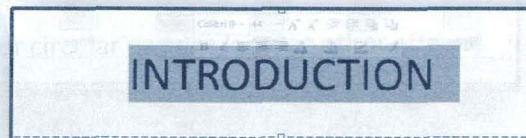


INSERTING HYPERLINK

In PowerPoint, a hyperlink can be a connection from one slide to:

- i. A slide in the same presentation
- ii. A slide in a different presentation
- iii. An e-mail address
- iv. A page or file on the Web
- v. A new file

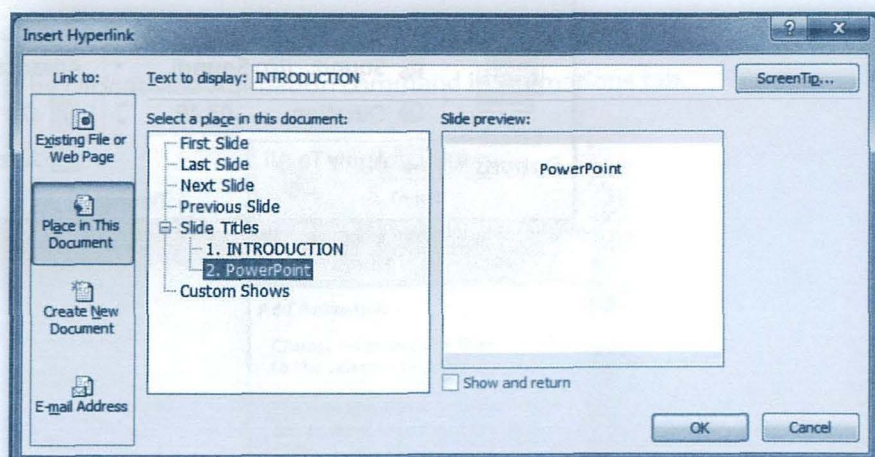
1. First of all click or highlight the text you want to become the hyperlink.



2. Go to Insert tab and click on the Hyperlink command.



3. Insert Hyperlink dialog box will appear as shown below. Under Link to, click Place in This Document. Select the destination slide and click OK.

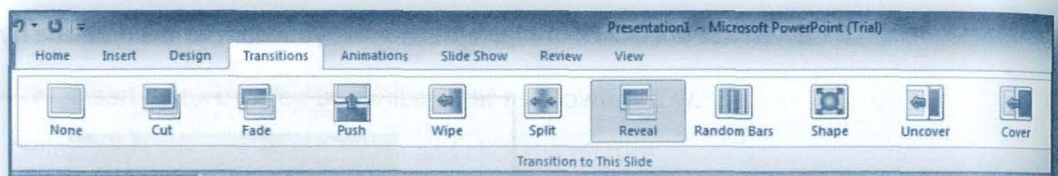




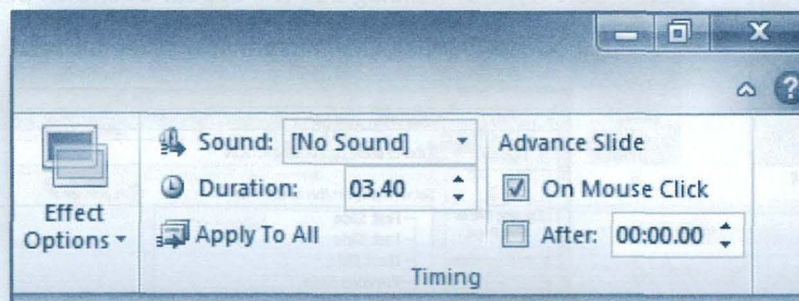
SLIDE TRANSITION

Slide transitions provide an animated effect to each slide when moving from one slide to the next during a slide show. There are a variety of transitions that can be applied to each or all slides including sounds.

1. Click a slide that you want to apply slide transition.
2. Go to Transition tab. There are various slide transition options. Select one of them.



3. To apply the same transition to all of your slides click on the Apply To All command after selecting the transition of your choice.
4. To apply a Sound, click on the sound drop down arrow.
5. Click the On Mouse Click box for transitions to occur only when forced. Click on the After box for the slide to transition at the time specified such as 5 seconds or 1 minute.





SLIDE ANIMATION

There are a variety of animations that can be applied to text, pictures, shapes, tables, SmartArt, graphics or other object in Microsoft PowerPoint 2010. Usually we use animation to focus on important points, to control the flow of information, and to increase viewer interest in a presentation. There are four different kinds of animation effects in PowerPoint 2010:

1. Entrance effects - User can see how the objects move in.
2. Exit effects - User can see how the objects move out.
3. Emphasis effects - Movement in the middle.
4. Motion Paths - You can use these effects to make an object move up or down, left or right, or in a star or circular pattern (among other effects).

To add an animation effect to an object, do the following:

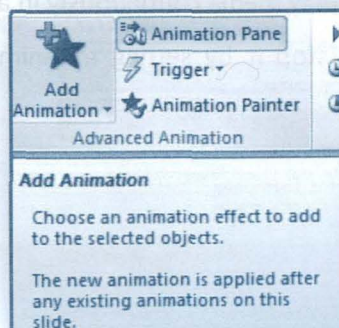
1. Select the object that you want to animate. For example text.

Power Point

2. Click Animations tab.



3. Chose an animation effect. You can use any animation by itself or combine multiple effects by click at Add Animation command in Animations tab.





INSERTING SOUND

You can add audio, such as music, narration, sound bites, and more to your presentations

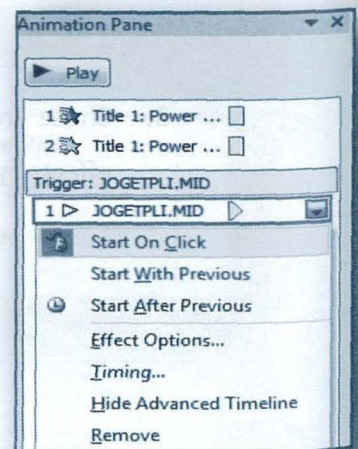
To add sound, do the following:

1. Click the slide that you want to add an audio clip.
2. On the Insert tab in the Media group, click Audio.



3. Do one of the following:
 - i. Click Audio from File, locate the folder that contains the file, and then double-click the file that you want to add.
 - ii. Click Clip Art Audio, locate the audio clip that you want in the Clip Art task pane, and then click to add it to the slide.
4. When you insert an audio clip on a slide, an icon appears  that represents the audio file.

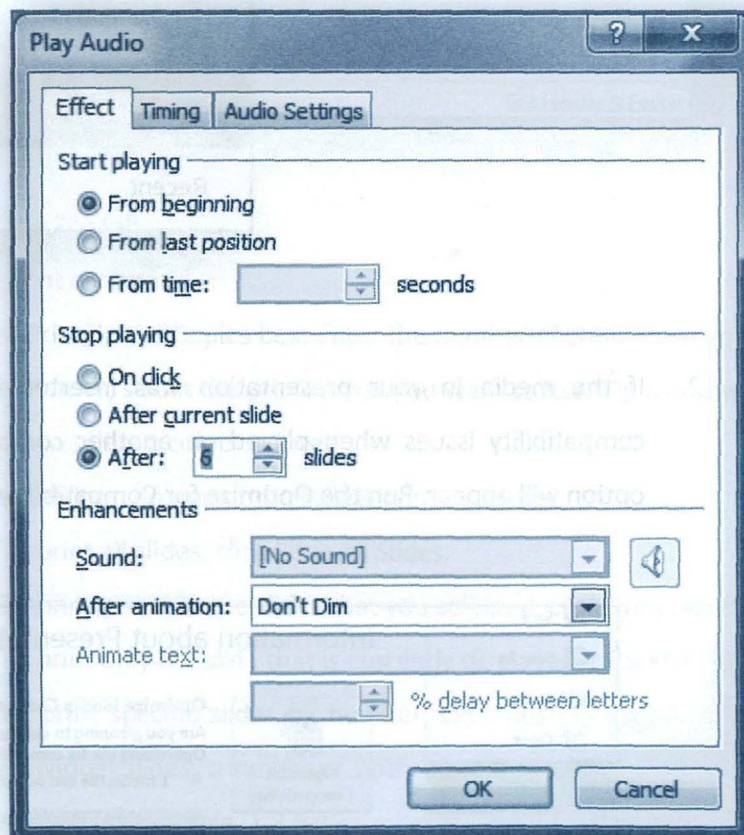
5. You can set the audio clip to play automatically when the slide displays, to start when you click the mouse, or to play across all slides in the presentation. You can even play media continuously in a loop until you stop it by setting at Animation Pane.



6. If you want set the sound to start and stop playing at certain slide, click Effect Option.



7. Play Audio dialog box will appear as shown below. Set at the start playing and stop playing part.

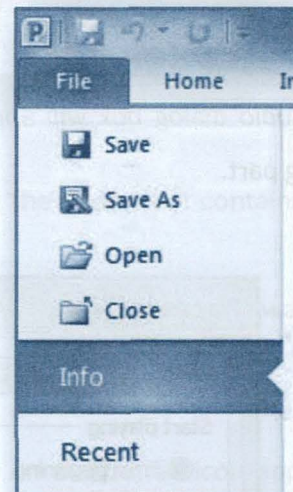




OPTIMIZE COMPATIBILITY

The Optimize Compatibility command in PowerPoint will help you to resolve playback issues. To avoid playback issues when your PowerPoint presentation contains media, such as video or audio files, you can optimize the media files for compatibility. This makes it easy to share your presentation with others or take it with you to another location (perhaps to use a different computer to present it elsewhere) and your slideshow will play correctly.

1. When you are ready to share your presentation, with the presentation open in PowerPoint, on the File tab, click Info.

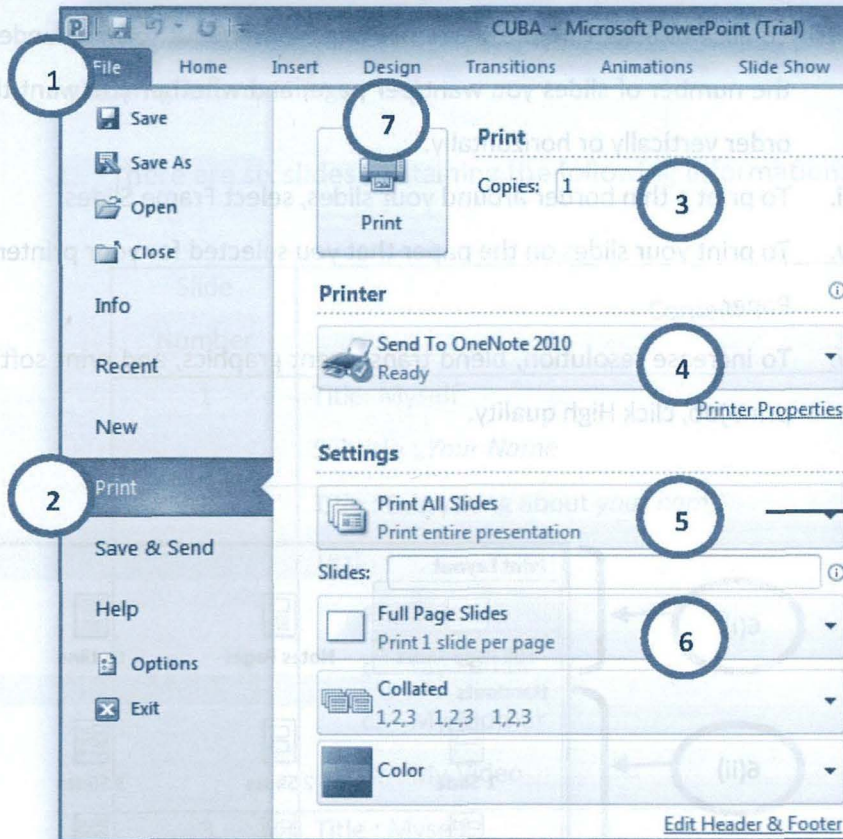


2. If the media in your presentation was inserted in a format that could present compatibility issues when played on another computer, the Optimize Compatibility option will appear. Run the Optimize for Compatibility command.





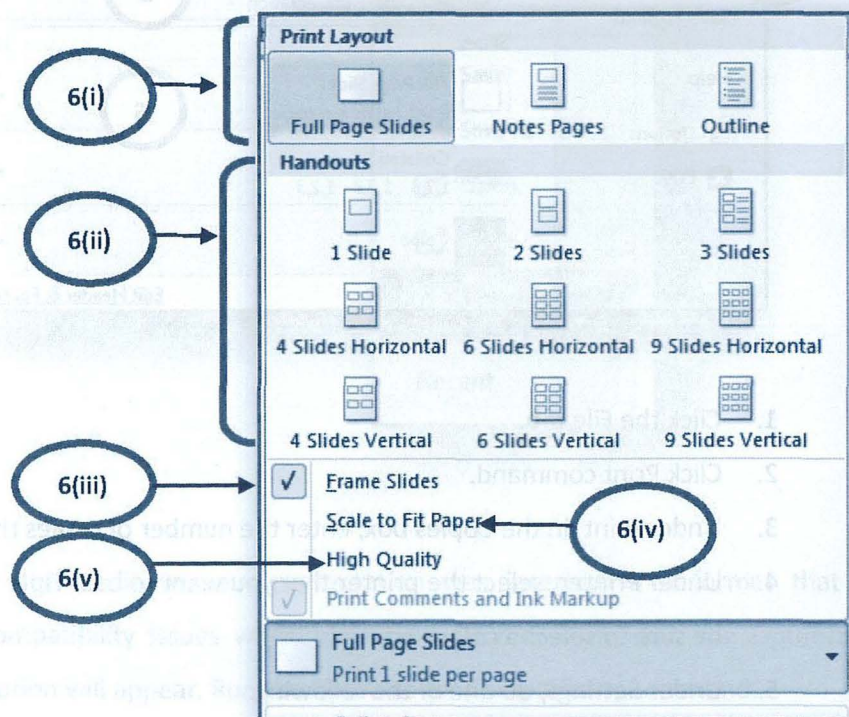
PRINTING



1. Click the File tab.
2. Click Print command.
3. Under Print, in the Copies box, enter the number of copies that you want to print.
4. Under Printer, select the printer that you want to use. Tip if you want to print in colour, be sure to select a colour printer.
5. Under Settings, do one of the following:
 - i. To print all slides, click Print All Slides.
 - ii. To print one or more slides that you selected, click Print Selection.
 - iii. To print only the slide that is currently displayed, click Print Current Slide.
 - iv. To print specific slides by number, click Custom Range, and then enter a list of individual slides, a range, or both. Use commas to separate the numbers and no spaces, for example, 1,3,5-12.

6. Click the Full Page Slides list, and then do the following:

- i. To click one slide on a full page, under Print Layout, click Full Page Slides.
- ii. To click one or multiple slides per page in handout format, under Handouts, click the number of slides you want per page, and whether you want them to appear in order vertically or horizontally.
- iii. To print a thin border around your slides, select Frame Slides.
- iv. To print your slides on the paper that you selected for your printer, click Scale to Fit Paper.
- v. To increase resolution, blend transparent graphics, and print soft shadows in your print job, click High quality.



7. Click Print.



6.2 EXAMPLE

You are required to produce a slide presentation about yourself based on the following information:

1. There are six slides containing the following information:

Slide Number	Content
1	Title: Myself Subtitle : <i>Your Name</i>
2	Title : Everything about <i>your name</i> Text : a. Myself b. My Father c. My Mother d. My Video
3	Title : Myself Text : a. Date of birth : b. Place of birth : c. Ambition : d. Hobby : e. Email address : f. Like : g. Dislike :
4	Title : My Father Text : a. Date of birth : b. Place of birth : c. Hobby : d. Occupation :

5	Title : My Mother Text : a. Date of birth : b. Place of birth : c. Hobby : d. Occupation :
6	Title : My Video Create a duration of 1 minute video about yourself and insert into this slide

2. Insert a suitable picture in each slide.
3. Insert hyperlink at slide 2 as following:
 - i. Myself - link to slide 3.
 - ii. My Father - link to slide 4.
 - iii. My Mother - link to slide 5.
 - iv. My Video - link to slide 6.
4. Insert one song in the first slide and let the song start playing (On mouse click) from the beginning and stop playing after 6 slide.
5. Apply a different theme for each slide.
6. Apply different transitions for each slide.
7. Apply an animation in at least one object in each slide.
8. Create duration of 1 minute video about yourself and insert into this slide.
9. Optimize your media files for compatibility.
10. Save the document as "Myself_your matric number" into your datastorage.
Example: "Myself_06DKA10F1001"

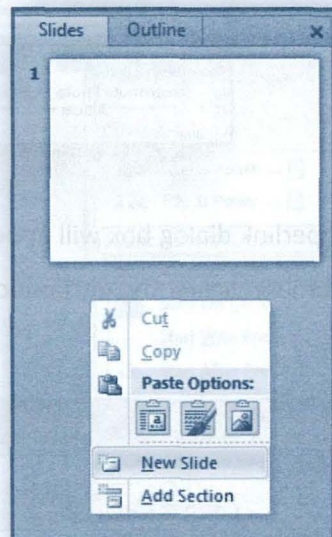
**SOLUTION**

Open Microsoft PowerPoint 2010 – Click All Program → Microsoft Office → Microsoft PowerPoint 2010.

Step 1: There are six slides containing the following information:

Right click at the slide pane.

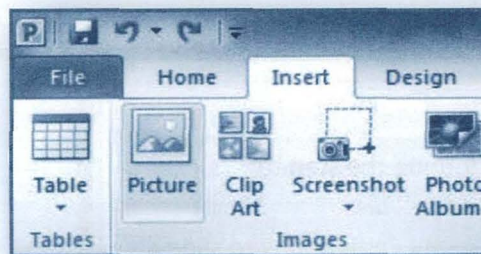
Click the New Slide button six times and insert all the information provided.



Step 2: Insert a suitable picture in each slide.

Click at the slide.

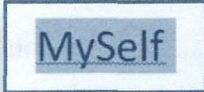
Go to the Insert tab and click on the Picture command.



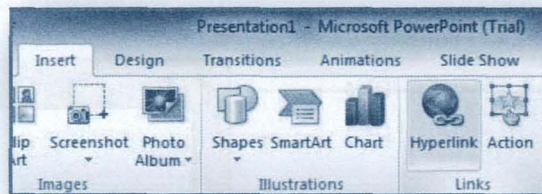
The Insert Picture dialog box will appear, select the location of the picture and click the picture.

Step 3: Insert hyperlink at slide 2.

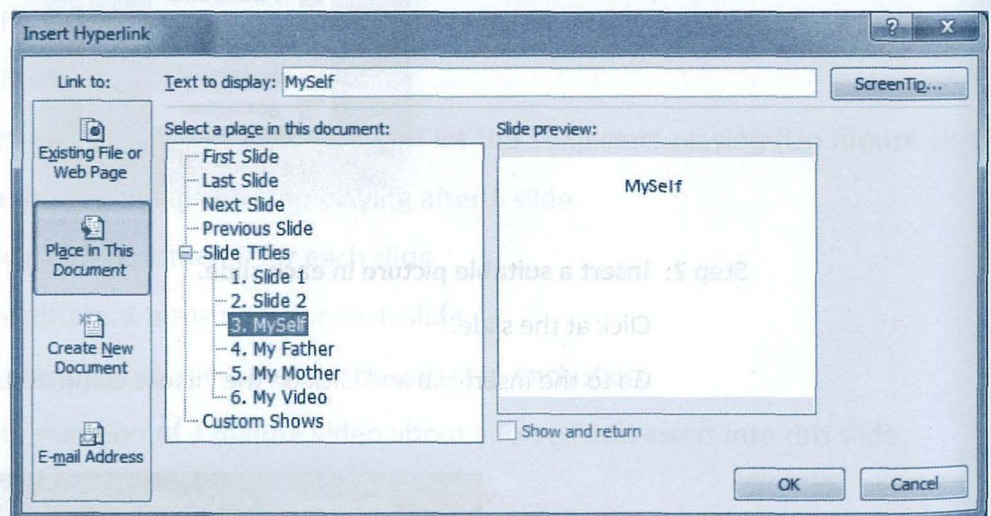
Click or highlight the text MySelf.



Go to the Insert tab and click on the Hyperlink command.



Insert Hyperlink dialog box will appear as shown below. Under Link to, click Place in This Document. Select the destination slide 3 and click OK.



Continue the step to:

- i. My Father - link to slide 4.
- ii. My Mother - link to slide 5.
- iii. My Video - link to slide 6.

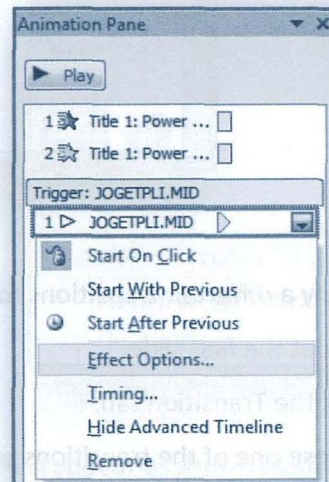
Step 4: Insert one song in the first slide and let the song start playing (On mouse click) from the beginning and stop playing after 6 slide.

Click the slide that you want to add an audio clip.

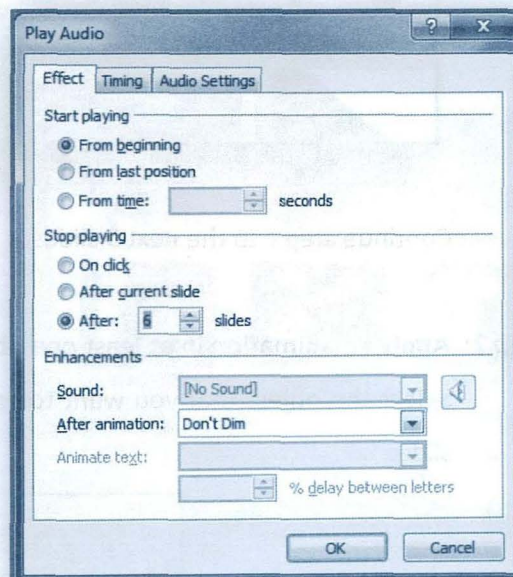
On the Insert tab, in the Media group, click Audio → Audio from file.



Click the Effect Option command at Animation Pane.



Play Audio dialog box will appear as shown below. Set at the start playing from beginning and stop playing after 6 slides → click OK.



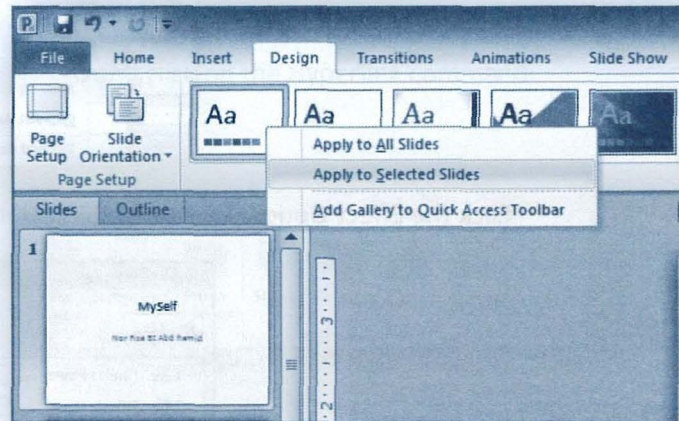
Step 5: Apply a different theme for each slide.

Click at the first slide.

Click the Design tab.

Choose one of the theme → right click at the theme → select Apply to selected slide.

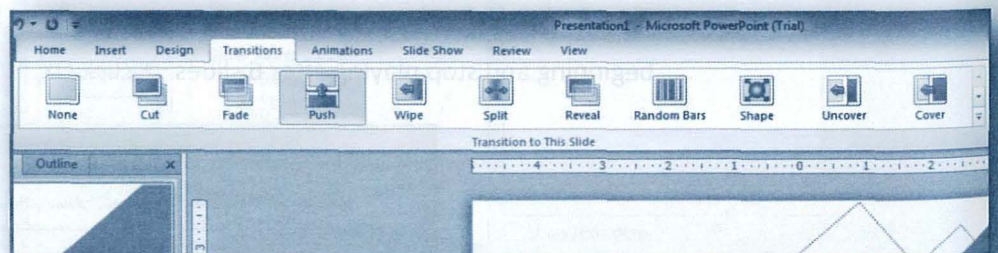
Continue step c to the next 5 slides.

**Step 6: Apply a different transitions for each slide.**

Click at the first slide.

Click the Transition tab.

Choose one of the transitions to the slide.



Continue step c to the next 5 slides.

Step 7: Apply an animation in at least one object in each slide.

Select the object that you want to animate. For example, text "MySelf" in the first slide.



Click the Animations tab and select one of the animations to the text.



Continue the step to at least one object in other 5 slides.

Step 8: Create duration of 1 minute video about yourself and insert into this slide.

Select slide 6.

Click the Insert tab → Video → Video from File.

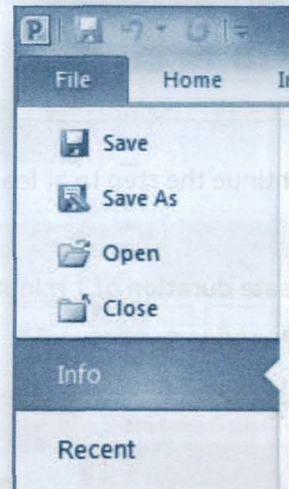


Insert Video dialog box will appear as shown below. Select the video and click Insert.

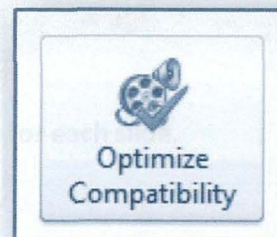


Step 9: Optimize your media files for compatibility.

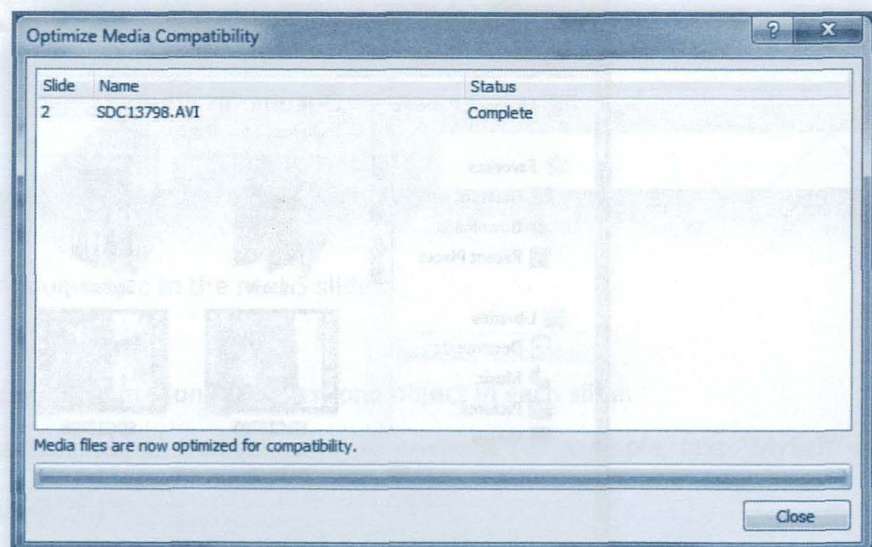
Click the File tab then click Info.



Run the Optimize for Compatibility command.



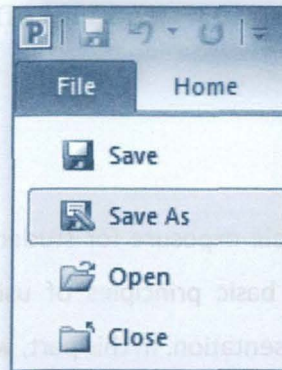
Optimize Media Compatibility will appear as shown below. After complete click Close button.



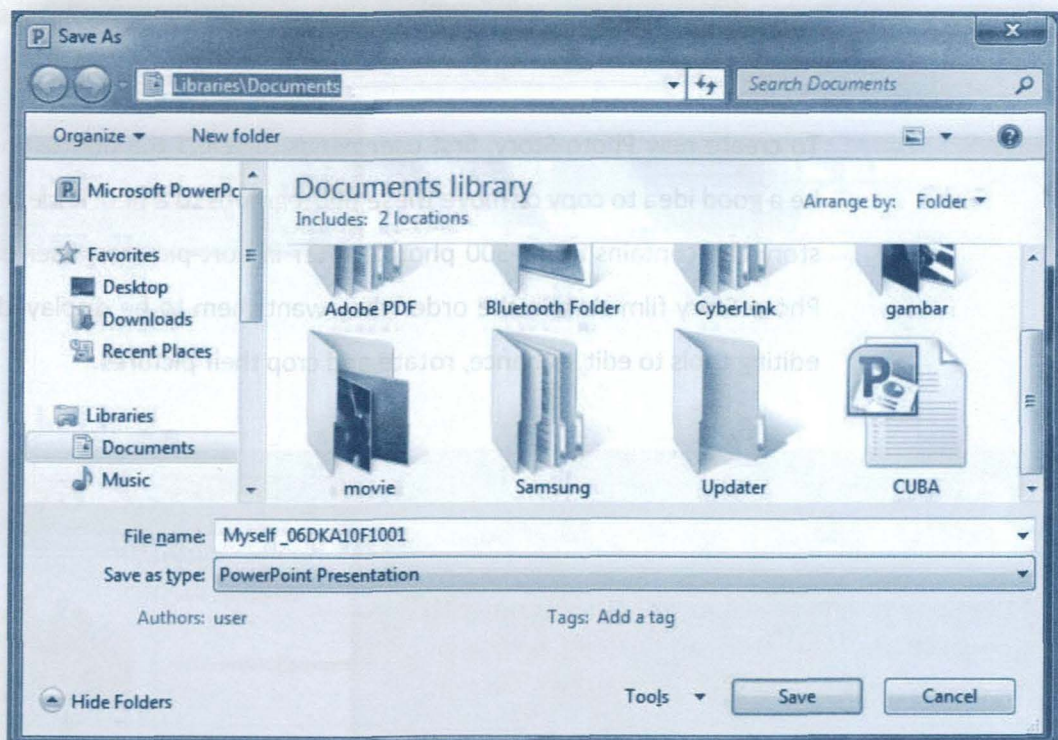
Step 10: Save the document as “Myself_your matric number” into your datastorage.

Example : “Myself_06DKA10F1001”

Click the File tab and select Save As command.



Named your file → Find datastorage directory → click Save.





6.3 IMAGE EDITING

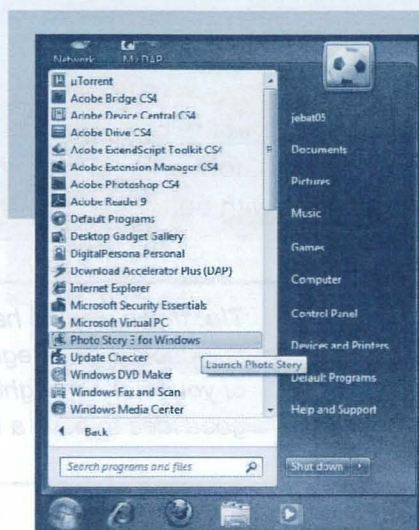
INTRODUCTION OF IMAGE EDITING USING PHOTO STORY 3 FOR WINDOWS SOFTWARE

Provides sample exposure for students to surf and communicate using internet. This topic will describe basic principles of using multimedia devices and software to produce an advanced presentation. In this part, we will use Photo Story 3 for Windows.



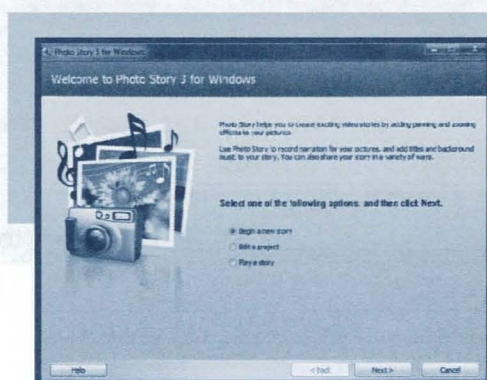
6.4 EXAMPLE

To create new Photo Story, first user needs to select the photos they want to use. It might be a good idea to copy or move these photographs to a new folder on user's computer. Each story can contains up to 300 photos. After import pictures, user can arrange them on the Photo Story film strip in the order they want them to be displayed. Then user can use the editing tools to edit, enhance, rotate and crop their pictures.



1

Open Photo Story 3 from start menu.



2

To start your project, click on **Begin a new story**.



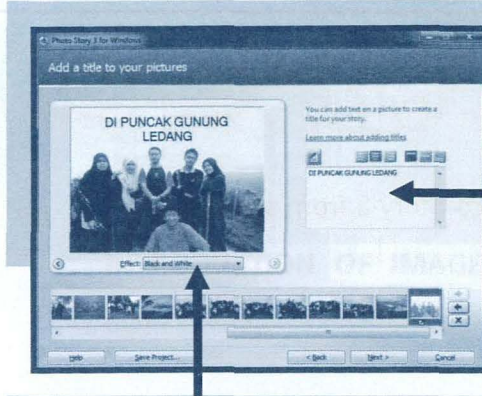
3

Click on **Import Pictures**. To import several at a time, click on the first one, hold **Shift** and click on the last one. This will highlight them all together.

To edit pictures, select the picture and then click **Edit**. It also can do crop and correct coloring etc.

Note: If you import a second batch of photos, these will be added at the end of

4

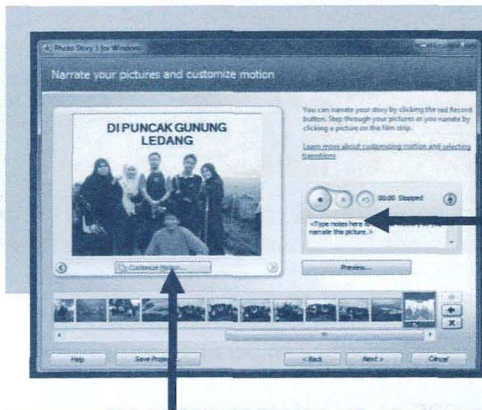


To add title, just write in the box. The position of words on the photo, font and colour can all be customized with buttons above the text.

Effects can be added to photo at this step.

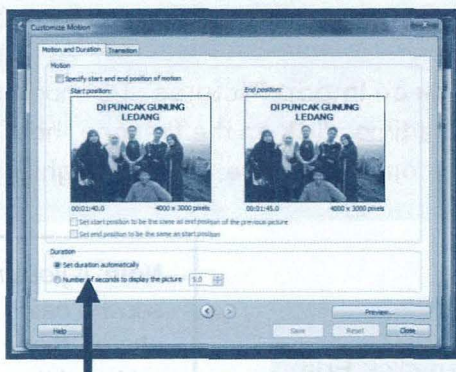
Tip: If you want to have a title photo at the beginning of your story, it might be a good idea to have a blank

5



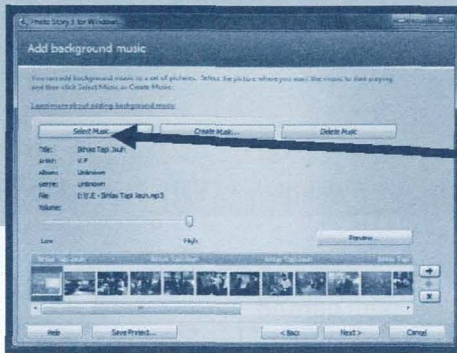
Add narration and movement. Before recording, you can add notes below each photo as a prompt for what will you say. Click the red button to record.

There are default settings for **transitions** and **zoom** settings. **Customize Motion** below the photo can change the settings.



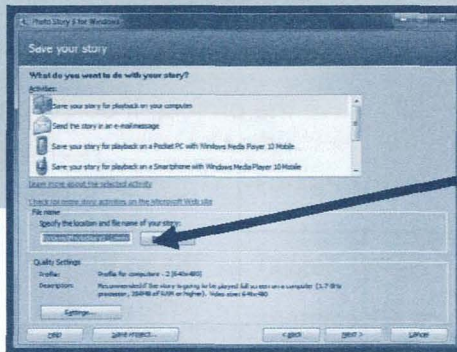
Set your timings. Slides will adjust to the length of a voiceover. Preview as you go. **Close** and **Next**.

Note: None of the above changes affects your original folder where it is stored on



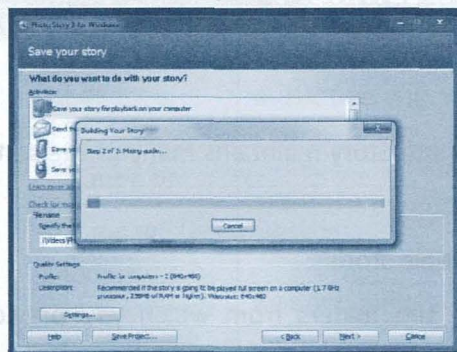
6

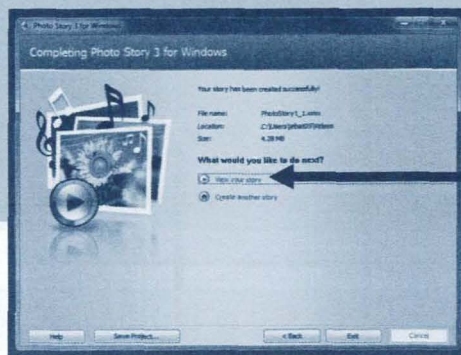
Select music from files. Click preview to check before go to the next step.



7

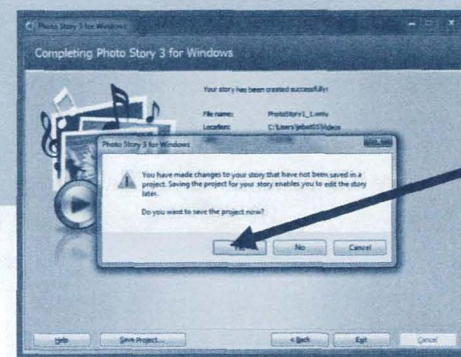
Your story will save in 'My Videos' as .wmv file, or you can select another location.





8

To playback your story, click **View your story**. It will play in **Windows Media Player**.



9

Finally, save the project. If don't, you will lose your work before.



MAINTAINING PHOTO STORY EDITING

- i. When you begin a new project Photo Story maintains many of the settings from your previous story.
- ii. This makes it easier to create multiple stories.
- iii. The settings maintained include the folders from which you previously imported photos and the background music you added.



HELPFUL TIPS TO REMEMBER

Image File Extensions

.bmp	Bitmap image file. This type is common for desktop backgrounds.
.gif	A standard image files (Graphic Interchange File). Can be opened with any graphics viewer or editor or any browser.
.jpg or .jpeg	A standard image files (Joint Photography Experts Group). Can be opened with any graphics viewer or editor or any browser.
.pic	A bitmap graphic file. Produced by the following software: PC Paint, Lotus or Mac PICT Drawing.
.png	Portable Network Graphic file. An alternative to the .gif format.
.tif or .tiff	Tagged Image File Format. A lesser-known image files type. Can be opened with any graphics viewer or editor, or any browser.

Media File Extensions

.avi	A Window video file. (Audio Video Interleave file)
.mp3	A highly-compressed file format. This file format is most used for music files and movies.
.mpg or .mpeg	The most popular file format for movies. A compressed file format.
.ra	RealAudio file. A popular sound file format. For use with RealAudio player.
.wav	A popular sound file format.



6.5 SOUND EDITING

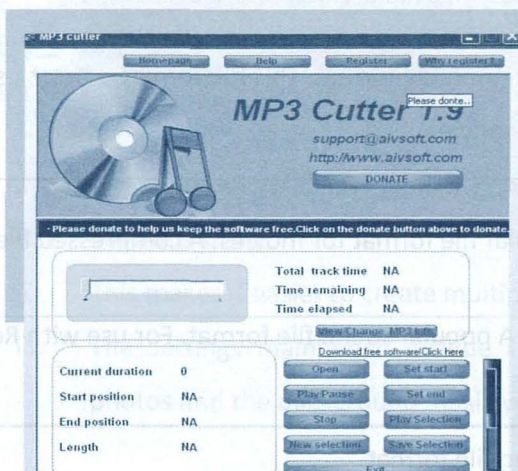
INTRODUCTION OF SOUND EDITING USING MP3 CUTTER

MP3Cutter is a simple utility that enables you to cut out pieces of a MP3 without having to decode that MP3 to a non-encoded PCM (wave)-file. It is one of the freeware MP3 cutter software that you can download easily.



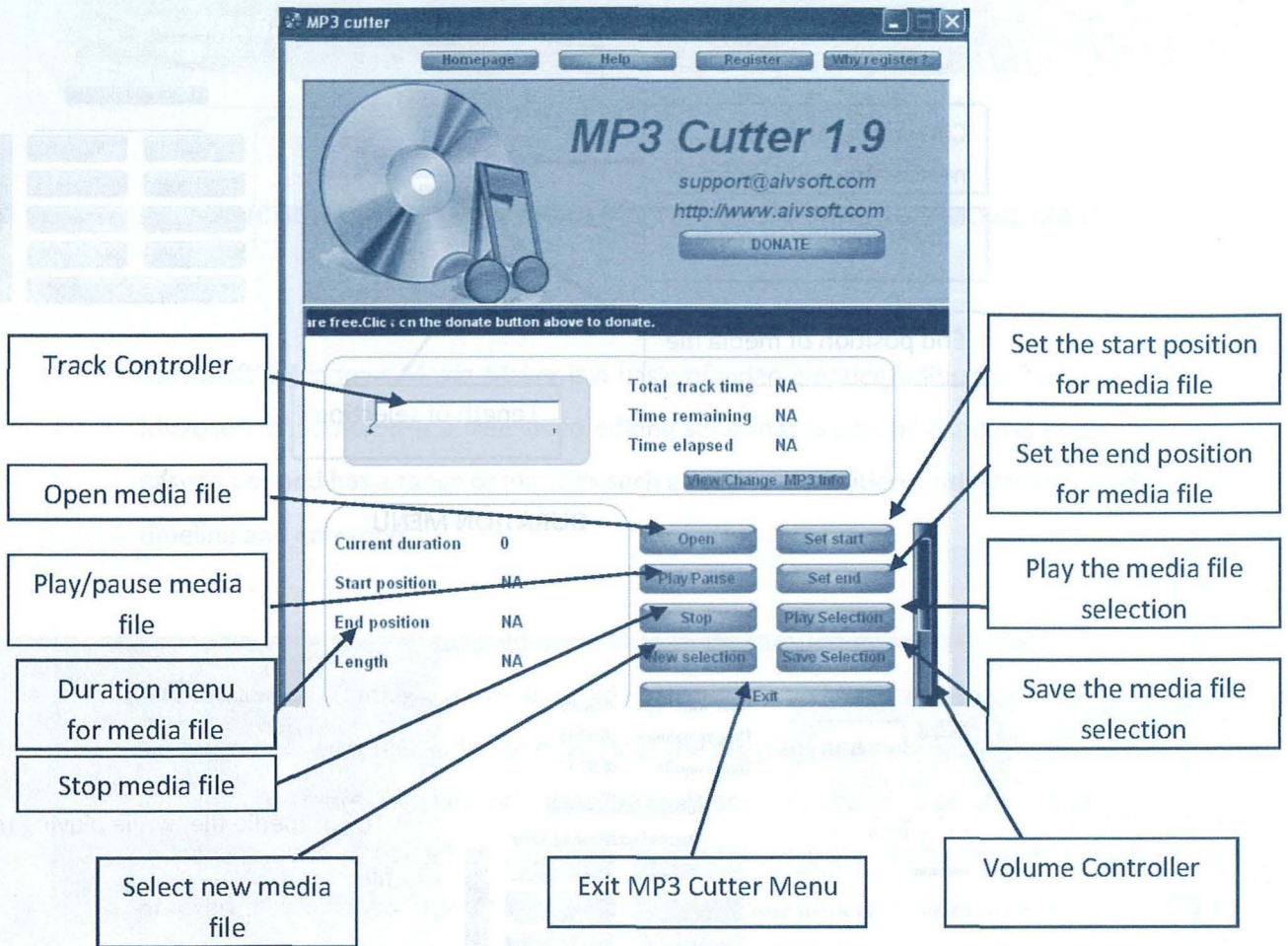
6.6 EXAMPLE

To cut out MP3 song into pieces, first user needs to select the song that you want to cut. It might be a good idea to copy or move the song that you want to use into a new folder on user's computer. It will reduce time while user cut the song and save it.

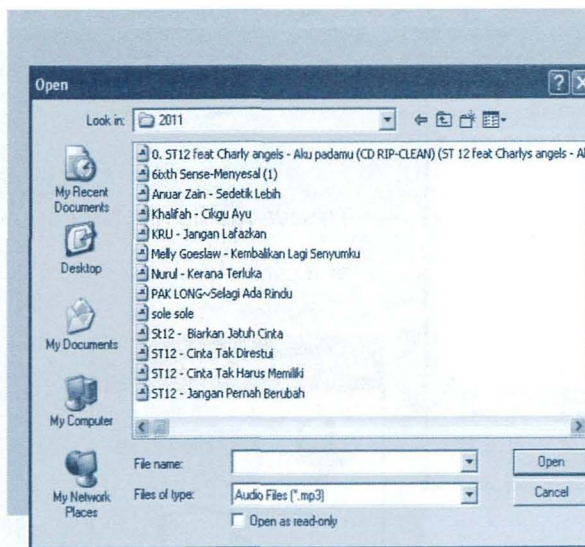


Open MP3 Cutter software and it will show main menu interface

1

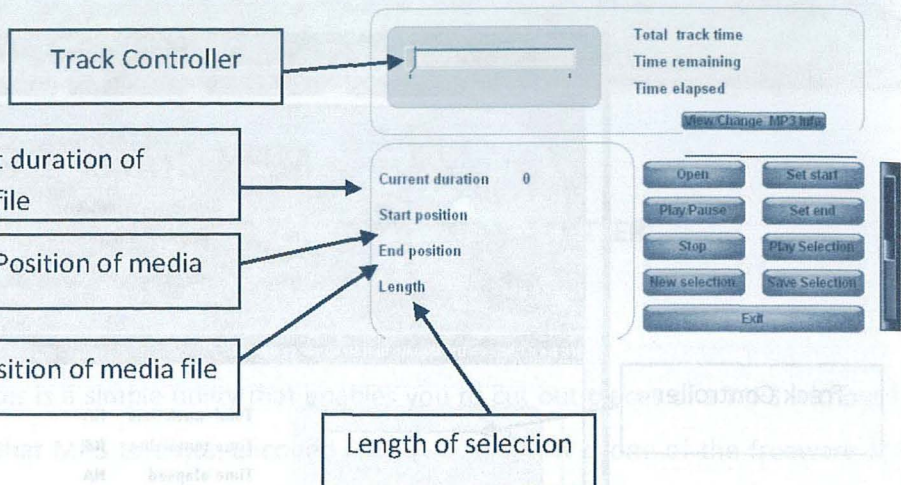


MAIN MENU INTERFACE

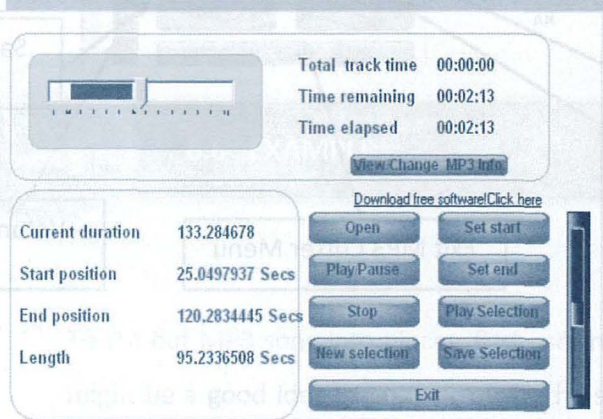


2

- To start your project, click on Open.
- Find the folder that you save the media file.
- Choose the media and click open.



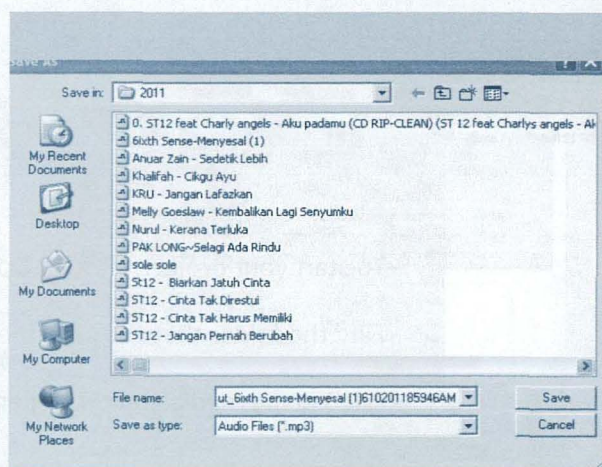
DURATION MENU



3

To cut media file, while playing media file:

- i. Click at Set start button
- ii. Click at Set end button



4

- To save media file, click at save button and click ok.





6.7 VIDEO EDITING

INTRODUCTION OF VIDEO EDITING USING MICROSOFT WINDOWS MOVIE MAKER

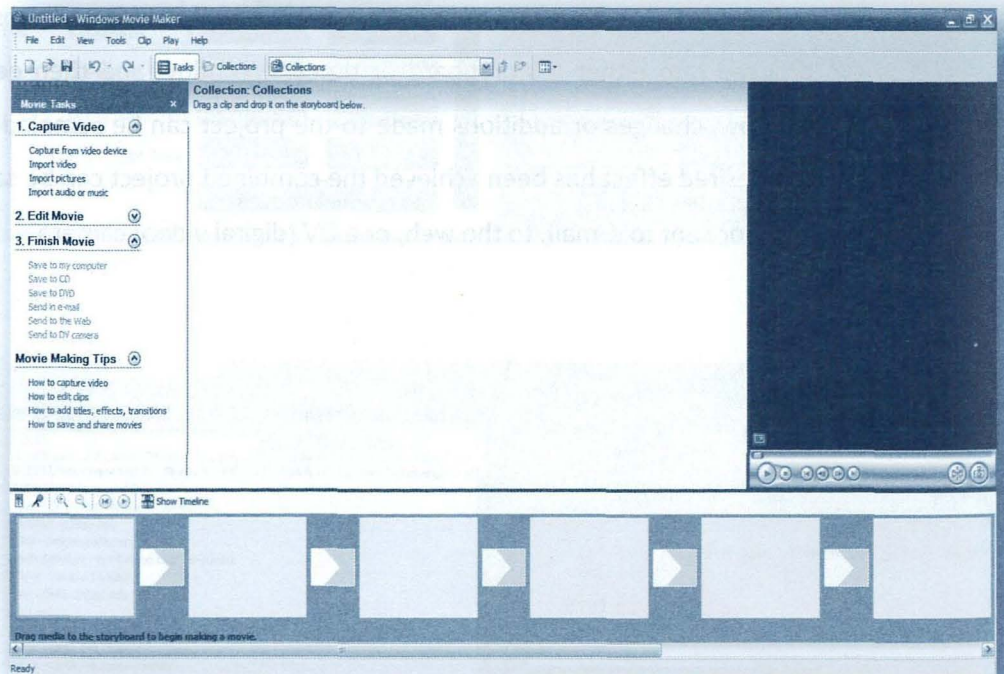
Microsoft's Windows Movie Maker is a basic of video creating/editing software included in Microsoft Windows. It is a free video editing suite that is part of Windows installation. It is easy to use and has a range of features such as effects, transitions, titles/credits, audio track, timeline and narration.

The process of creating a movie or a slide-show in Movie Maker consists of importing media such as video, pictures, audio, or music into the program and then manipulating these same elements to create a specific product. The interface is designed to provide visual access and management of imported elements in the collections pane. Items from this area can be dragged into either a storyboard or timeline window and then edited. From the monitor window, changes or additions made to the project can be sampled through playback. Once the desired effect has been achieved the combined project can be saved to the computer, to a CD, or sent to e-mail, to the web, or a DV (digital video) camera.



GETTING STARTED

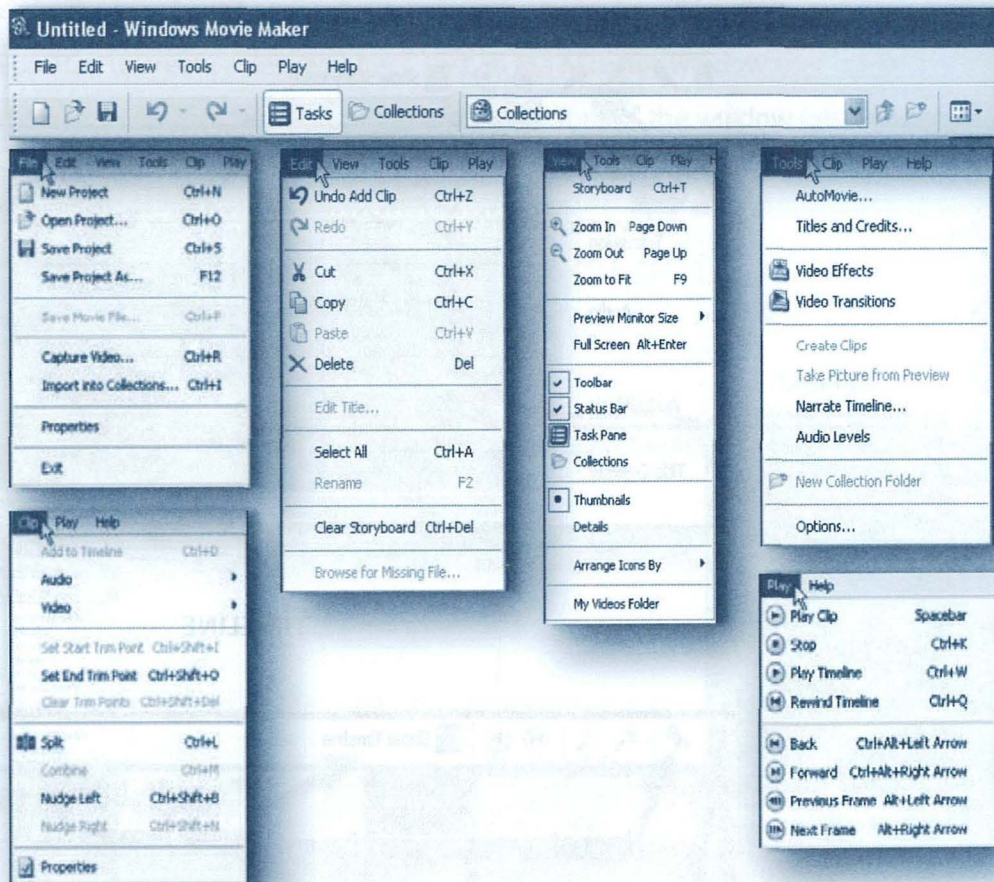
The process of creating a movie or a slide-show in Windows Movie Maker consists of importing media such as video, pictures, audio, or music into the program and then manipulating these same elements to create a specific product. The interface is designed to provide visual access and management of imported elements in the collections pane. Items from this area can be dragged into either a storyboard or timeline window and then edited. From the monitor window, changes or additions made to the project can be sampled through playback. Once the desired effect has been achieved the combined project can be saved to the computer, to a CD, or sent to e-mail, to the web, or a DV (digital video) camera. Below is an image of the Windows Movie Maker interface.





MENUS

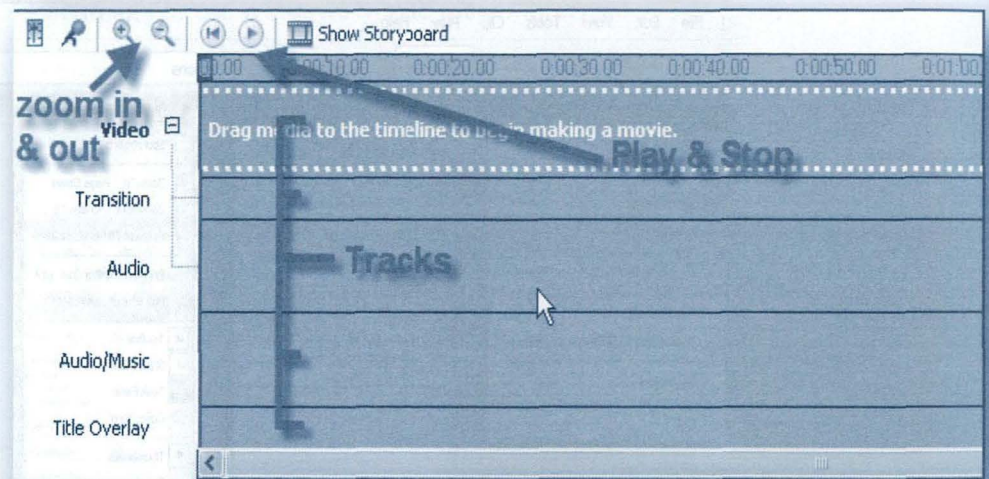
The **menus** in Windows Movie Maker give access to important program functions. Below is a graphic of the main menu header as well as six dropdown menus for file, edit, view, tools, clip, and play. In Windows Movie Maker, access to most program functions can be reached through more than one location.



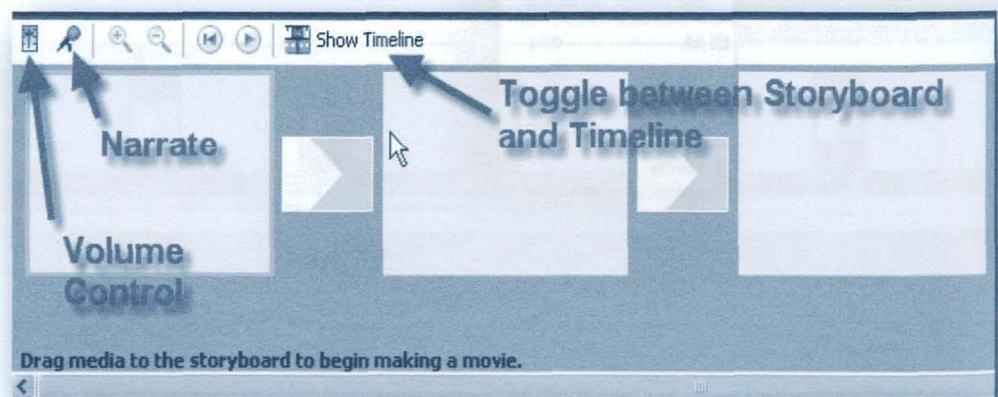


TIMELINE / STORYBOARD

In Windows Movie Maker, the storyboard and timeline windows are utilized for controlling placement of media. From the timeline window, all of a project's elements can be viewed in its respective tracks along a linear (from left to right) layout. By selecting the plus (+) or minus (-) magnifying glass at the upper left of the timeline window, a project can be viewed from its extended length in minute increments or narrowly focused down to tenths of a second. The project can be played by clicking on play/stop buttons. To narrate a timeline, click on the microphone icon and to adjust volume, click on the volume control. To toggle between views, click "Show Storyboard" or "Show Timeline."



TIMELINE

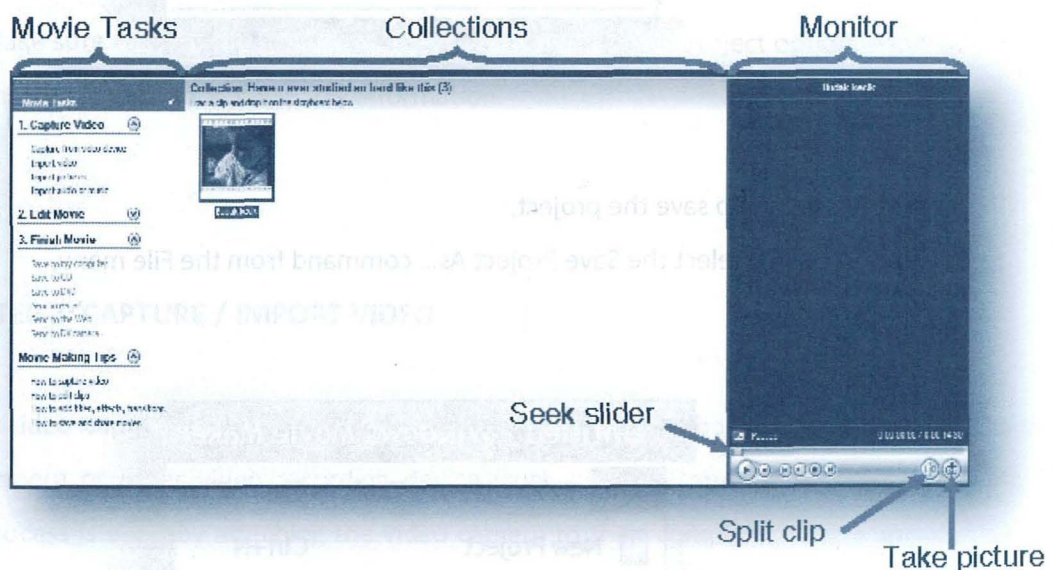


STORYBOARD



MOVIE TASKS, COLLECTIONS AND MONITOR

Below is a graphic of Windows Movie Maker's interface including the Movie Tasks pane, the Collection pane, and Monitor window. First, the **Movie Tasks** pane provides an access point to capture video, edit user's movie, and save the movie, as well as providing movie making tips. The links in the pane are fairly intuitive and follow, from top to bottom, the basic outline of the movie making process from start to finish. Next, the **Collections** pane provides a thumbnail view of videos, pictures, and even music that have been imported into Windows Movie Maker for use on user's movie project. From the Collections pane user select and drag clips into the storyboard or timeline to create a movie. As will be discussed later, clips can be manipulated to create a desired effect. Last, in the **Monitor** window user can test or preview their movie. From the function buttons at the bottom of the window (also along the top of the timeline/storyboard) user can play, stop, forward, or rewind the movie (or manually use the seek slider), split a clip or capture a still image from video.





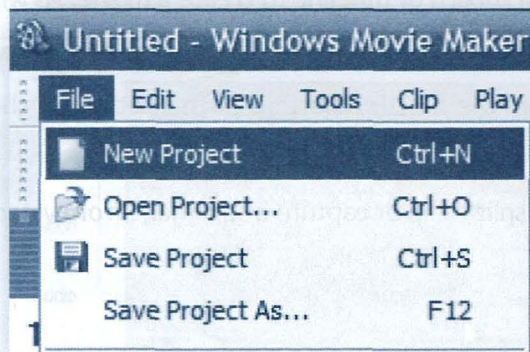
6.8 EXAMPLE

STEP 1: CREATING AND SAVING PROJECT

Prior to starting work on user's movie, user must first create a project in Windows Movie Maker.

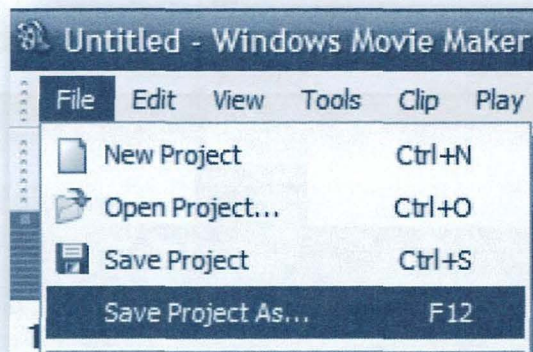
- i. To create a new project,

Select the New Project command from the File menu.

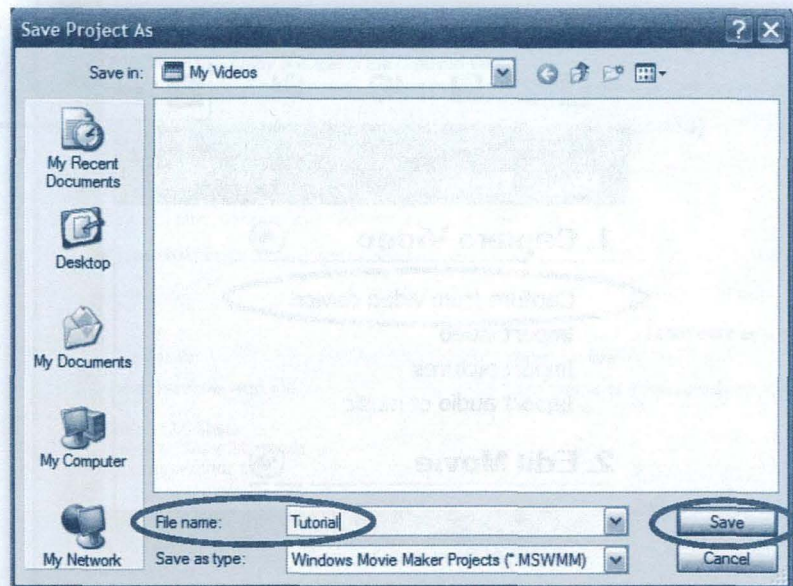


- ii. To save the project,

Select the Save Project As... command from the File menu.



- iii. In the Save As window use a file name that user will remember.
Then click the Save button.



Make sure to save the project often by selecting the Save Project option in the File menu to ensure that user don't lose any information.

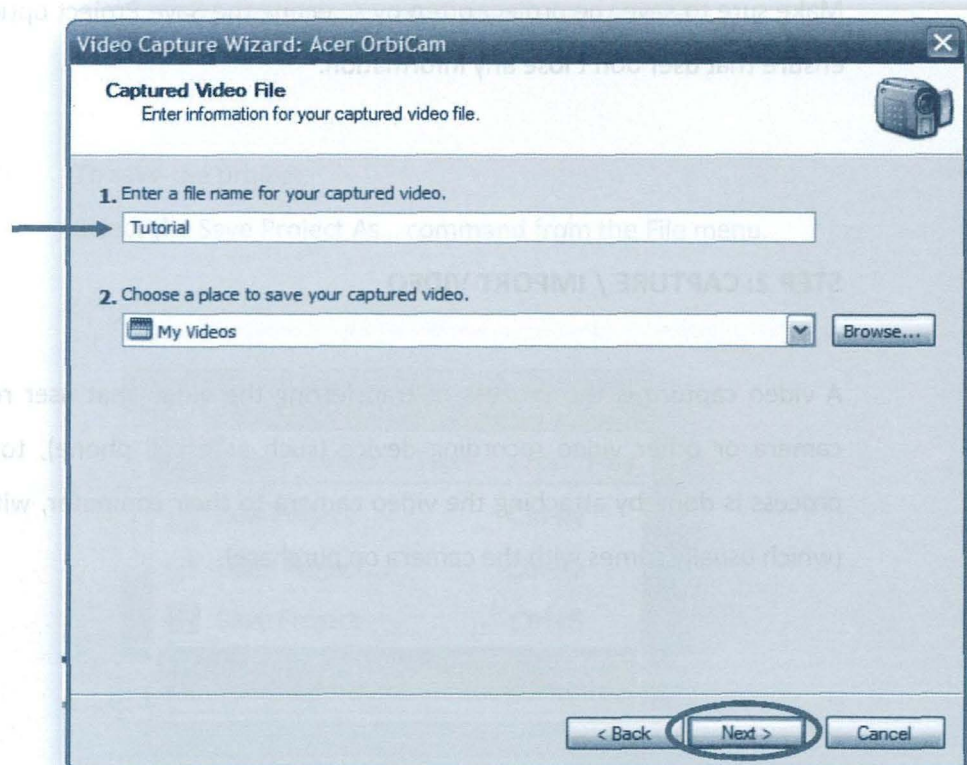
STEP 2: CAPTURE / IMPORT VIDEO

A video capture is the process of transferring the video that user recorded from a video camera or other video recording device (such as a cell phone), to their computer. This process is done by attaching the video camera to their computer, with a special USB cable (which usually comes with the camera on purchase).

- i. In the Movie Tasks Pane,
Select Capture from video device.

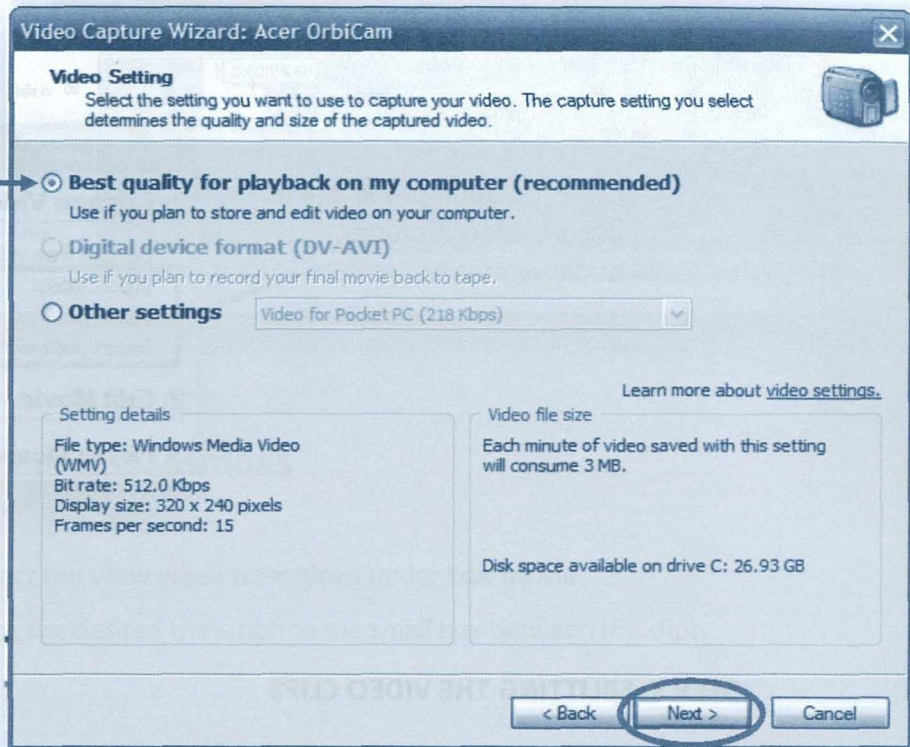


- ii. Type a name user will remember for video clip
Then click Next.



- iii. Select Best quality for playback on my computer.

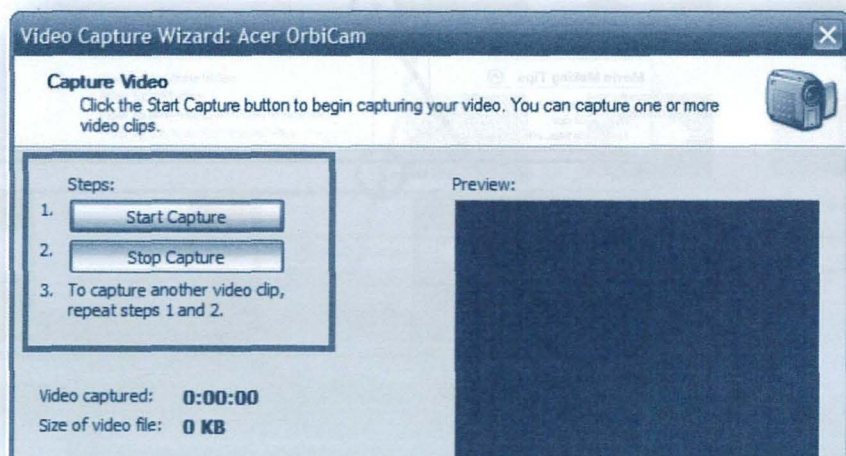
Then click Next.



- iv. Click the Start Capture button.

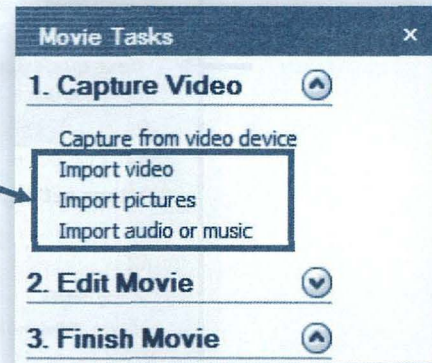
Click Stop Capture when it is done.

Repeat this step for multiple clips.



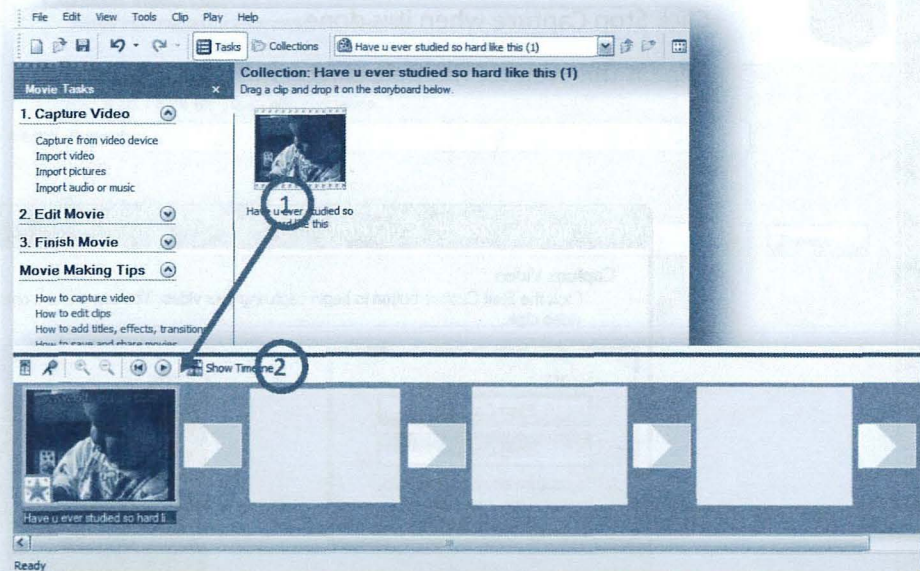
- v. User can either import Video, Photographs, Audio or Music. From the Movie Tasks pane, under Capture Video, select the appropriate link to import video, photographs, audio or music into Windows Movie Maker.

Click the appropriate link to import video, pictures, audio or music.

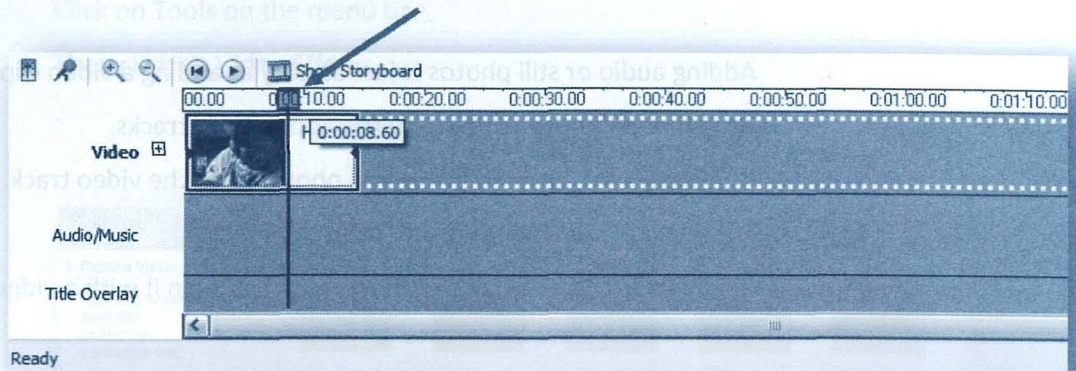


STEP 3: SPLITTING THE VIDEO CLIPS

- Drag and drop the clip into the timeline.
- Click on the Show Timeline button.

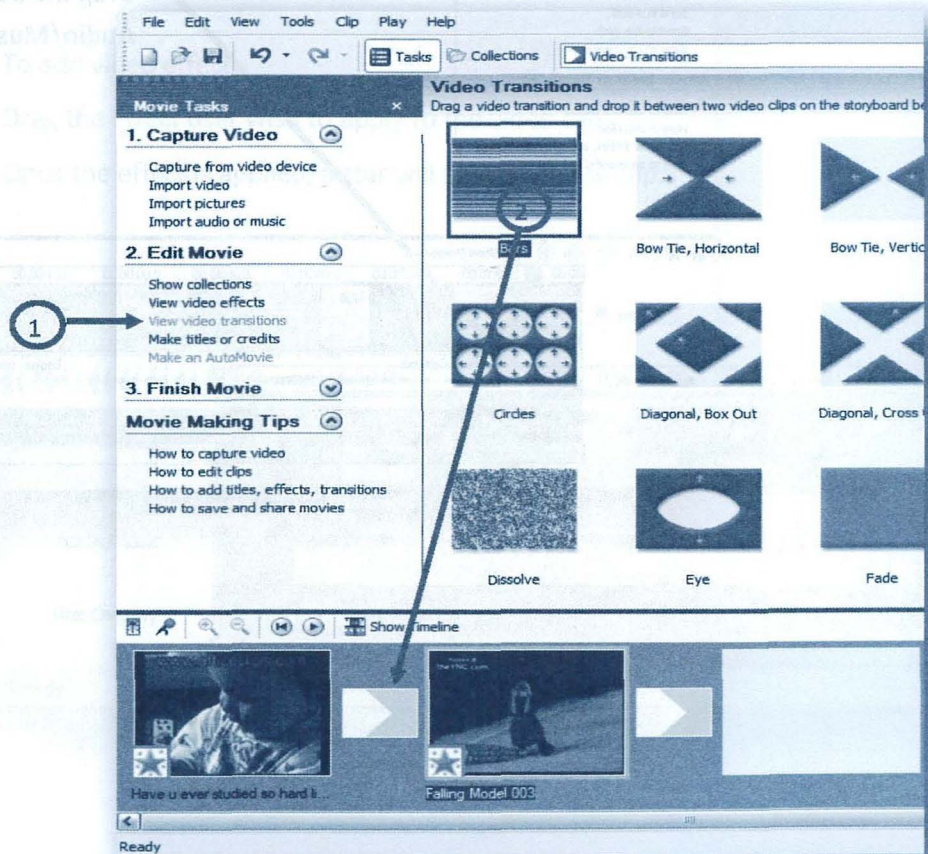


- iii. Place the cursor where user wants to split the clips.
- iv. Go to Clip and then select Split.



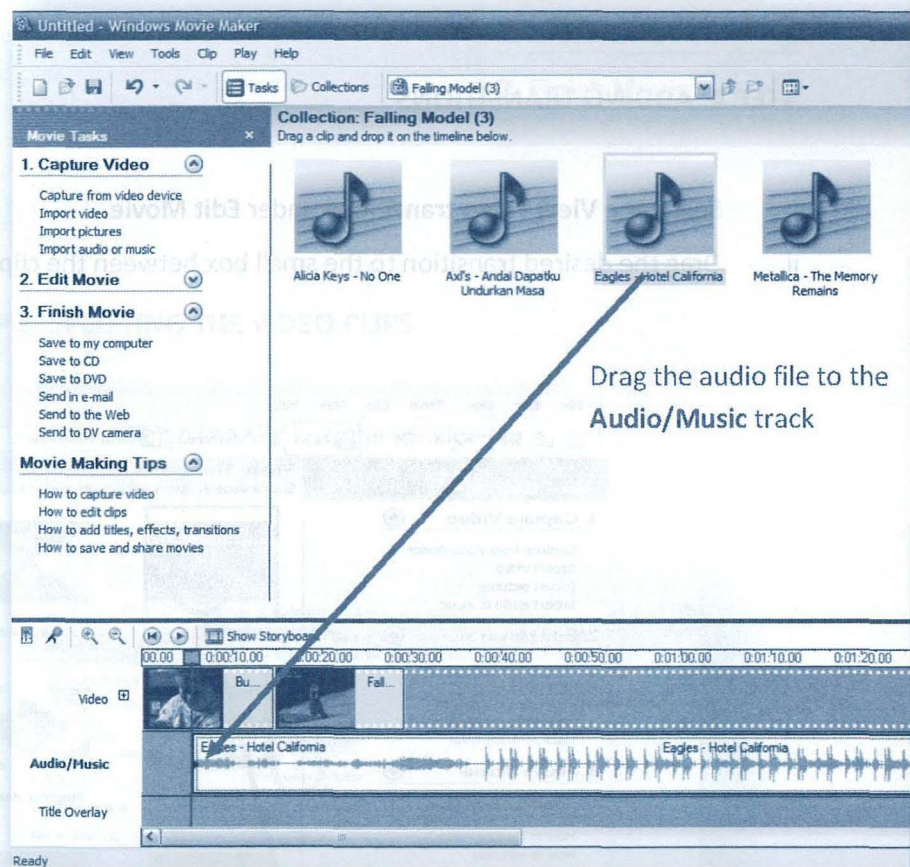
STEP 4: ADDING TRANSITIONS

- i. Select the **View video transitions** under **Edit Movie**.
- ii. Drag the desired transition to the small box between the clips.



STEP 5: SOUNDS, STILLS AND EFFECTS

- i. Adding audio or still photos is just as easy as adding a video clip.
Drag the audio clip or photo to the appropriate tracks.
- ii. Audio goes in the audio track, and photos go in the video track.
To sync the audio with the video,
User can drag the audio clip left and right to align it with a video clip.

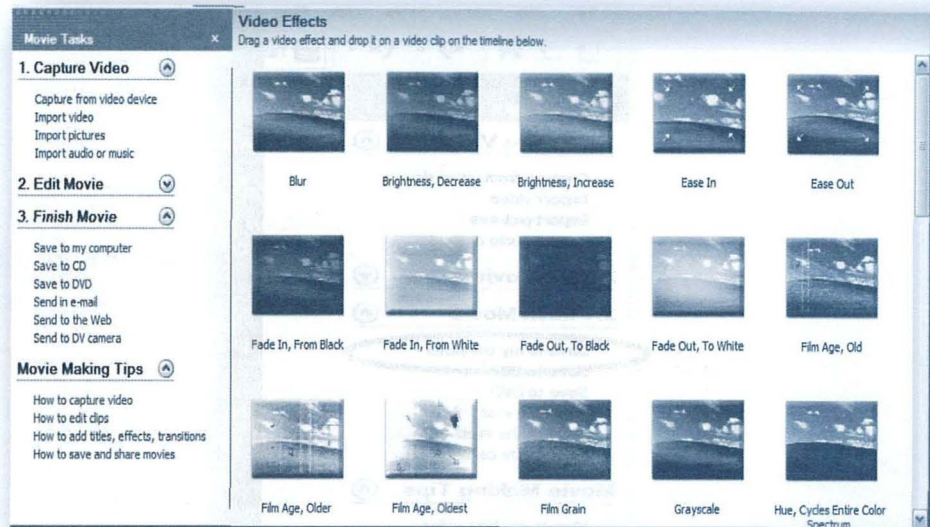


- iii. Video effects can greatly enhance a video clip.

To apply an effect,

Click on Tools on the menu bar,

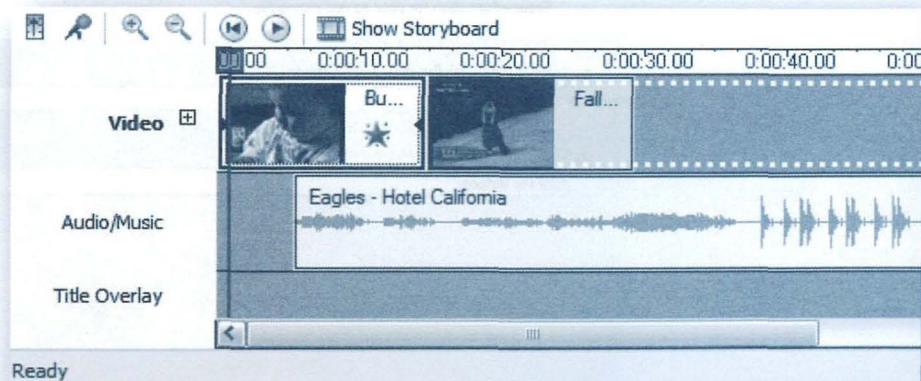
Then click on Video Effects.



- iv. To add video effect,

Drag the effect user wish to apply to the video clip.

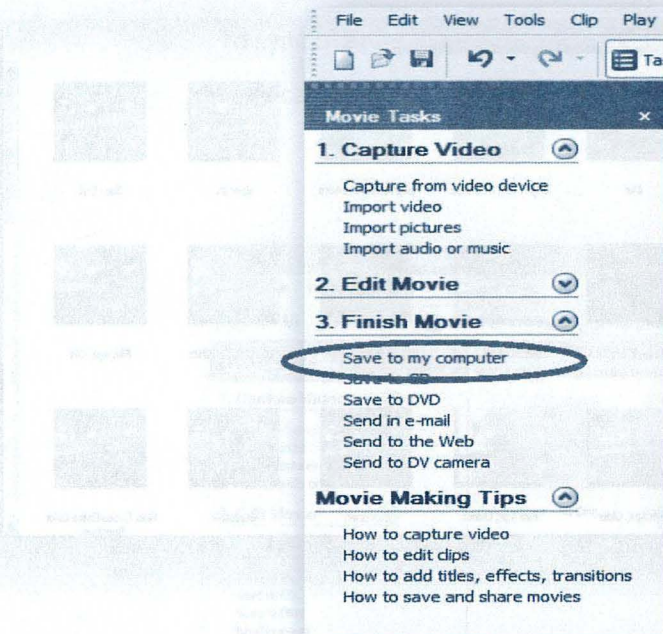
- v. Once the effect is applied, a star will appear on the clip.



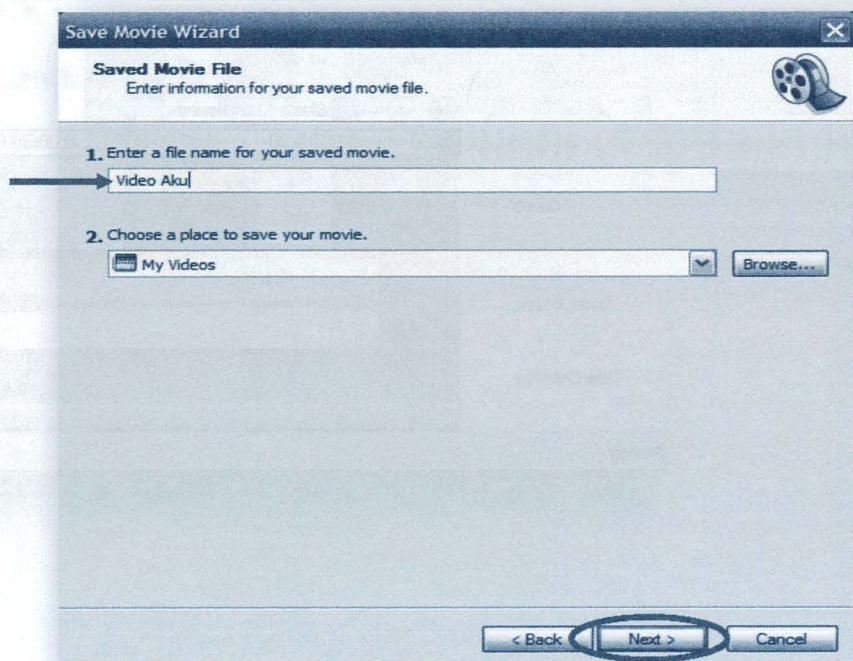
STEP 6: EXPORTING FOR POWER POINT

User can export the movie to a file format that is compatible with Microsoft PowerPoint.

- i. Under the Finish Movie menu,
Select Save to my computer.



- ii. Type a name for the video file
Then click Next.



- iii. When it has finished saving,
Then click Next.
- iv. If user is going to use this file to burn to DVD, user will need to save it in the SHARED HD.

INSTRUCTION:

1. Define what is the Plug-in?

2. Identify the functions of Hypertext Transfer Protocol in the Internet-based network address.

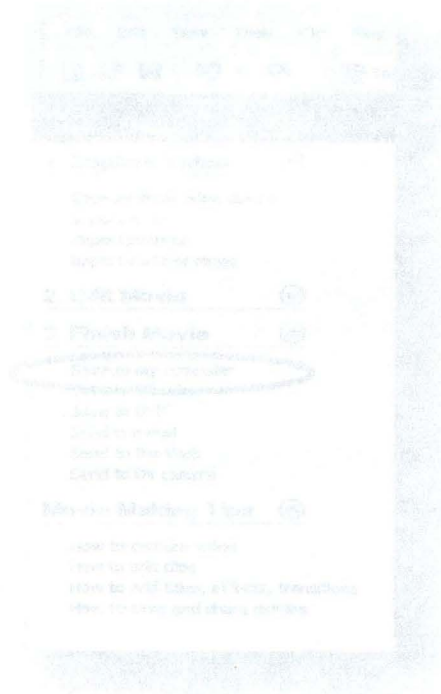
3. Categorize the URL address below into its constituent parts and identify the sensitive part for net security.

<http://www.bridges.org.uk/about-gate.htm>

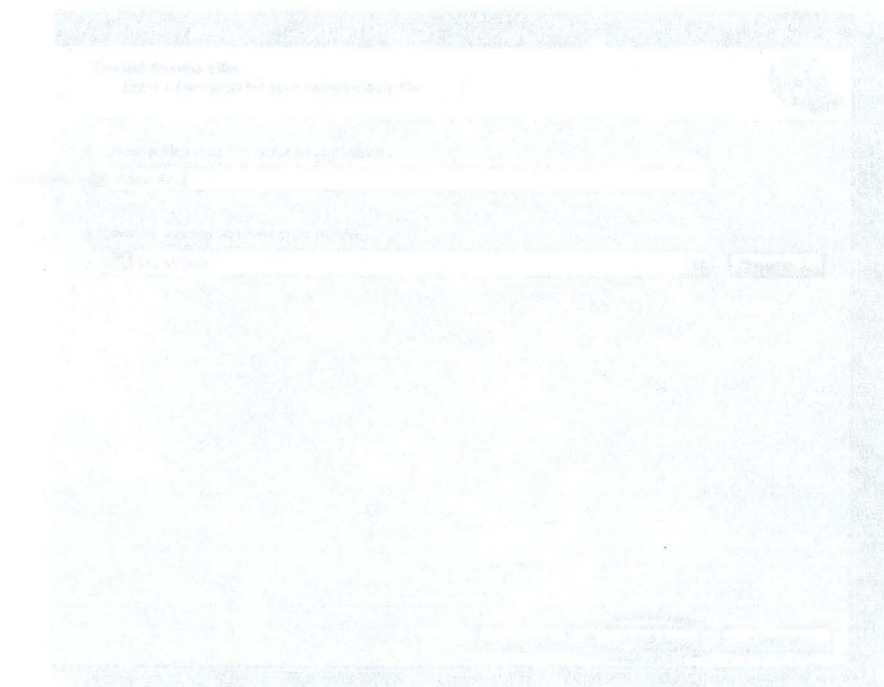
Protocol	
Computer host name	
Second level domain	
Top level domain	
Country Internet code	
File name	

STEP 6: EXPORTING FOR POWER POINT

- iii. When it has finished saving, the user can export the movie to a file format that is compatible with Microsoft PowerPoint.
- iv. If user is going to use this file to convert to a video format, user will need to save it in the SHARED location.
- HD. Select Save to my computer.



Type a name for the video file.
Then click Next.



LABWORK 1: INTERNET (CLO 2)
(1/2 HOUR)

INSTRUCTION:

1. Define what is the **Plug-ins**?

/1m

2. Identify the **functions of Hypertext Transfer Protocol** in the Uniform Resource Locator (URL) address.

/1m

3. Categorize the URL address below (<http://www.britglass.org.uk/about-glass.htm>) with the suitable listed format and structure.

http://www.britglass.org.uk/about-glass.htm	
Protocol	
Computer host name	
Second level domain	
Top level domain	
Country Internet code	
File name	

/6m

LABWORK 1: INTERNET (CLO 2)
(1/2 HOUR)

INSTRUCTION:

4. List **FIVE** web browsers and state their developer.

- a)
- b)
- c)
- d)
- e)

/5m

5. Give **SIX** ethics in using Internet and describe each of the ethics.

Ethics	Description
a)	
b)	
c)	
d)	
e)	
f)	

/12m

LABWORK 2: WORD PROCESSOR (CLO 3)
(1 HOUR)

INSTRUCTION:

1. Create a new document by using Microsoft Word.
2. Type the word **FACEBOOK** by using Word Art and center the word.
3. Type all the text below by using Times New Roman font and font size is 12.

/2m

Facebook is a social networking service and website launched in February 2004, owned and operated by Facebook, Inc. As of May 2012, Facebook has over 900 million active users, more than half of them using Facebook on a mobile device. Facebook was founded by Mark Zuckerberg with his college roommates and fellow students Eduardo Saverin, Dustin Moskovitz and Chris Hughes. The website's membership was initially limited by the founders to Harvard students, but was expanded to other colleges in the Boston area, the Ivy League, and Stanford University.

/3m

Apply the following formatting to the text above:

- a) Justify all the text
- b) Set the line spacing to 1.5
- c) Bold the word "facebook"
- d) Header: " Student's Name "
Footer: "Registration Number"

/1m

/1m

/1m

/2m

4. Apply suitable bullet or numbering for the items below.

Some of Facebook features:

- a) Usernames
- b) Friend

LABWORK 2: WORD PROCESSOR (CLO 3)
(1 HOUR)

c) Status updates

d) Like

e) Notification

f) News feed

g) Chat

h) Poke

i) Photos

j) Message and Inbox

/5m

5. Choose and insert some graphics to represent the article.

/2m

6. Build a table as shown below:

Item	Description
URL	Facebook.com
Type of site	Social Networking Service
User	901 million (active 2012)
Owner	Facebook, Inc.
Created by	Mark Zuckerberg Eduardo Saverin Dustin Moskovitz Chris Hughes
Launched	February 4, 2004

/6m

7. Lastly, save the document as "Labwork2_(your matric number)".

Example : Labwork2_DTK12F1001

/2m

LABWORK 3: SPREADSHEET (CLO 3)
(1 HOUR)

INSTRUCTION:

1. Open a blank spreadsheet, key in all data / information as below into all cells.

AHMAD FRUIT SHOP						
Purchases And Sales Of Fruits						
NO	FRUITS	NUMBER OF PURCHASES (kg)	PURCHASES PRICE/kg	NUMBER OF SALES (kg)	SALES PRICE/kg	FRUIT'S STATUS
1	MANGGO	250	6.0	250	8.0	
2	DURIAN	200	6.0	180	8.0	
3	WATERMELON	300	1.0	150	1.8	
4	MANGOSTEEN	150	4.0	150	6.0	
5	HONEY DEW	100	2.5	100	4.0	
6	PAPAYA	100	1.0	90	2.0	
7	GRAPE	200	3.0	180	6.0	
TOTAL						

/5m

2. Build the following formatting procedure to worksheet :

- a) Apply a border as shown above.

/1m

- b) Format the title (AHMAD FRUIT SHOP) and (Purchase and Sales of Fruits) alignment to center.

/1m

- c) Insert a new column after PURCHASES PRICE/kg and named it as TOTAL PURCHASES (RM).

/2m

- d) Insert a new column after SALES PRICE/kg and named it as TOTAL SALES (RM).

/2m

- e) Apply shading to column TOTAL PURCHASES and TOTAL SALES.

/2m

- f) Merge or split cells as shown on the table.

/2m

- g) Align cells content.

/2m

LABWORK 3: SPREADSHEET (CLO 3)
(1 HOUR)

3. Apply in formula to calculate all below:

a) TOTAL PURCHASES of each fruit.

/4m

b) TOTAL SALES of each fruit.

/4m

c) Total for TOTAL PURCHASES (RM) and TOTAL SALES (RM).

/3m

d) Use the formula of IF to find out the status of each fruit either SOLD OUT or AVAILABLE by making a comparison between NUMBER OF SALES and NUMBER OF PURCHASES.

/7m

4. Select all the cells containing numbers in the PURCHASES PRICE/kg, TOTAL PURCHASES, SALES PRICE/kg, TOTAL SALES columns. Format the numbered data in the selected cell range using the Format Cells dialog box. Select the Currency category and then select the RM symbol and decimal places : 2

/3m

5. Select the three groups of cells as follows: FRUITS, NUMBER OF PURCHASES and NUMBER OF SALES.

a) Insert a Column chart format into the same worksheet using the Chart group the format and customize the chart using Chart Tools based on the following details:

Chart Type: Column

/2m

Chart Sub-type: Clustered Column.

/2m

Chart Title: "Ahmad Fruit Shop-Number of Purchases & Sales"

/2m

Category (X) axis: FRUITS

/2m

Category (Y) axis: KILOGRAM

/2m

Legend Placement: Bottom

/2m

LABWORK 4: PROJECT MANAGEMENT (CLO 3)
(1 HOUR)

INSTRUCTION:

1. Start a new blank project by selecting MS Office Project.
2. Insert the following tasks into the table.

/2m

Task Name	Duration
Batch Mixing	1 day
Batch Melting	2 weeks
Furnaces	3 hours
Forming Processes	16 hours
Annealing	2 days
Glass Production Process	1 day?
Inspection Equipment	2 days
Labelling	1 day
Coating	3 days
Coating	1 day
Ancillary Processes	10 hours

/7m

3. Edit Task 9 (Coating) to the name **Packaging**.
4. Insert a blank task above Task 5 (Annealing) and enter the new task
Internal Treatment, Duration: 6 hours.
5. Edit by moving the task Glass Production Process **above** the task Batch Mixing.
6. Locate Task 2 until Task 12 as a subtask of Glass Production Process.

/2m

/3m

/3m

/3m

LABWORK 4: PROJECT MANAGEMENT (CLO 3)
(1 HOUR)

7. Use Link Tasks command to link all the tasks.

/3m

8. Enter a Milestone task for Inspection Equipment.

/3m

9. Insert the task below in the Resource Sheet:

Resource Name	Type	Initials
LABOUR	Work	L
COLOR	Material	C
GAS	Material	G

/8m

10. Build a resource name and percentage in the Resource Name as below:

Task Name	Resource Names
Glass Production Process	
Batch Mixing	LABOUR
Batch Melting	LABOUR, COLOR[1]
Furnaces	
Forming Processes	LABOUR
Internal Treatment	LABOUR, GAS[1]
Annealing	
Inspection Equipment	LABOUR
Labelling	
Packaging	
Coating	
Ancillary Processes	LABOUR

/8m

LABWORK 4: PROJECT MANAGEMENT (CLO 3)
(1 HOUR)

11. Save the document as "Labwork4_(your matric number)".

Example: Labwork4_DTK12F1001

/2m

12. Print screen the item below and save it in the MS Word document:

- a) Gant chart
b) Report : task

/3m

/3m

Slide Number	Slide Title	Content
1	Introduction	Presentation title and your name.
2	Chocolate Info	A brief description about the chocolate.
3	Chocolate History	Information about history of chocolate.
4	Chocolate Types	List at least FOUR types of chocolate.
5 & 6	Chocolate and Health	List the POSITIVE and NEGATIVE health effects of having chocolate.
7	5 Facts About Chocolate	List FIVE facts about the chocolate.
8	Summary	Summarize the content of your presentation by inserting a video about the chocolate.

LABWORK 5: PRESENTATION & BASICS OF MULTIMEDIA (CLO 3)
(1 HOUR)

INSTRUCTION:

1. Start a new presentation by selecting MS Power Point.

/2m

2. Create a presentation entitle "**CHOCOLATE**" based on the following information.

Slide Number	Slide Title	Content
1	Introduction	Presentation title and your name.
2	Chocolate Info	A brief description about the chocolate.
3	Chocolate History	Information about history of chocolate.
4	Chocolate Types	List at least FOUR types of chocolate.
5 & 6	Chocolate and Health	List the POSITIVE and NEGATIVE health effects of having chocolate.
7	5 Facts About Chocolate	List FIVE facts about the chocolate.
8	Summary	Summarize the content of your presentation by inserting a video about the chocolate.

/16m

3. Identify suitable text, graphics, audio and video that related to the presentation in order to implement some multimedia application. Insert and arrange the edited graphics, audio and video into the slides.

/10m

4. Use suitable editing software to edit the graphics, audio and video.

/10m

LABWORK 5: PRESENTATION & BASICS OF MULTIMEDIA
(1 HOUR)

5. Design the presentation slides as creative as you can by applying animation, slide transition and timing to the presentation.

/10m

6. Save your slide as "Labwork5_(your matric number)" into the folder that you have make earlier.

/2m

PROJECT (CLO 3)

INSTRUCTION:

1. A GROUP Project, **FOUR** or **FIVE** (4 @ 5) person for each group.
2. The Project title is **"My Lovely Country"**.
3. Scope of assessment:
 - a) Creativity
 - b) Content
 - c) Technology competency
 - d) Subject knowledge
 - e) Teamwork
 - f) Submission date
4. In this project each group will be given a state. You are required to explain the advantages of these states in various forms. You are required to produce the following documents based on the information given below.
 - a) Scrapbook
 - i. Minimum pages are 30.
 - ii. You need to describe the **FIVE (5)** most interesting places in the state.
 - iii. Scrapbook content:
 - Index
 - Introduction Of Malaysia
 - Introduction Of State
 - Interesting Places
 - Tips of traveling
 - Other relevant information

PROJECT (CLO 3)

iv. You must apply the following function in any part of the description of **each** place of interest in your scrapbook:

- Alignment text : Justify
- Column
- Table
- Textbox
- AutoShapes
- Picture
- Header & Footer
- Page Number
- WordArt
- Suitable Font
- Suitable spacing
- Bullet & Numbering

b) Brochure

- i. By using Microsoft Word you are required to produce the brochure for the **FIVE (5)** most interesting places you have chosen. One brochure for one place.
- ii. Three-fold brochure.

c) Poster

- i. By Using Microsoft Word, create a poster about interesting places in your state that can attract people to visit the places.
- ii. Your poster must be neat, beautiful and creative.

(CLO 3) PROJECT (CLO 3)

INSTRUCTION:

d) Slide presentation

- i. By using Microsoft PowerPoint create a slide presentation base on the information below:

- Minimum slides are 10.
- Apply Slide Transition
- Apply an animation at one object in each slide
- Insert a suitable picture
- Insert a suitable song
- Create a movie clip about "My Lovely Country" duration: below 2 minute by using Windows Movie Maker and insert into the presentation slide.
- Save your presentation as "My Lovely Country".

e) Microsoft Excel

- i. Prepare a schedule of your expenses in producing this project using Microsoft Excel.
- ii. Attach a sheet of your expenses on the back of the scrap book.

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TARIKH DIPULANGKAN
(DATE DUE)

22 JAN 2019		