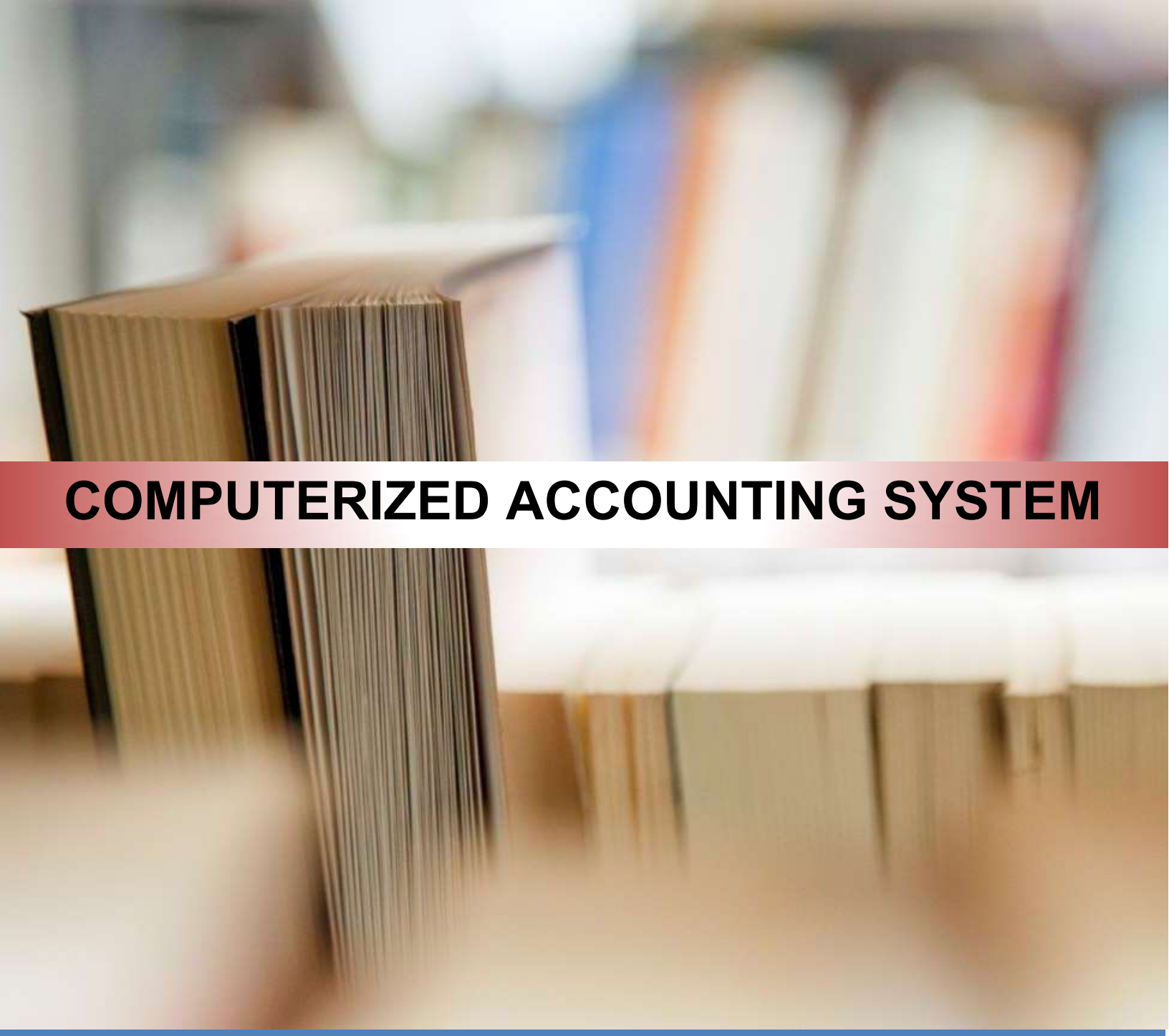

COMPUTERIZED ACCOUNTING SYSTEM

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Polytechnic Edition | 2024

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PREFACE

Computerized accounting is accounting done with the aid of a computer. It tends to involve accounting software. Computerized accounting has many advantages over traditional manual accounting. This edition consists of Lab Exercises and Practical Test for Computerized Accounting System that are widely used AutoCount. Our aim is to expose students to AutoCount. It is designed for those who have no prior knowledge or skills in using this accounting software. It consists of guideline on how to use this AutoCount. At the same time, it will develop necessary skills and knowledge to allow them to work on tasks independently using AutoCount. This book is useful for those who wish to equip themselves with AutoCount.

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Synopsis

A computerized accounting system is a computer-based approach for tracking accounting activity that uses information technology resources. It offers the skills to use a computer as an accounting tool to produce a full set of accounts. Students will use the computer for recording transactions and producing financial reports. The computer will also be used to analyze financial reports by management. In addition, students will be exposed to the latest technological trends in accounting and other external sources attempting to collect information.

Learning Outcomes

CLO1	Provide explanation on the characteristic, role, structure, concept and functions of Accounting Information System (AIS).
CLO2	Explain the appropriate task in analyzing the accounting report with proper technics and procedure.
CLO3	Organize financial data to prepare full set of accounts by using computerized accounting system.
CLO4	Discuss clearly information system and technology control use in accounting.

Assessment

Coursework Assessment	CLO	Percentage
Quiz	CLO 1	10%
Laboratory Exercise 1	CLO 2	12.5%
Laboratory Exercise 2	CLO 3	12.5%
Practical Test	CLO 3	30%
Presentation	CLO 4	25%
Mini Project	CLO 2	10%
TOTAL		**100%**

Chapter 1 Introduction to Accounting Information Systems (AIS)

1.1 An Overview of Accounting Information System (AIS)

Accounting information systems (AIS) exist at the intersection of two important disciplines which are (i) accounting; and (ii) information systems (Figure 1).

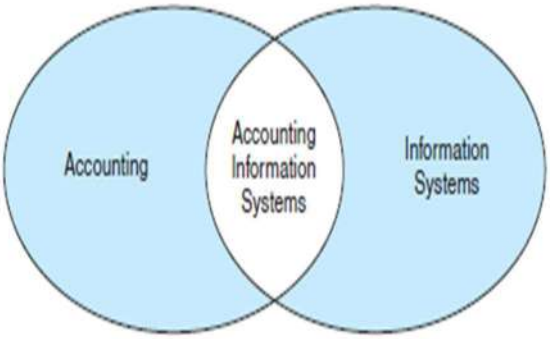


Figure 1: Overview of AIS

An accounting information system (AIS) is a framework that companies use to gather, organize, handle, process, retrieve, and report their financial data for use by management, chief financial officers (CFOs), auditors, regulators, and tax authorities.

The field of AIS uses information systems, generally understood, to inform accounting and auditing theory and practice. The utilization of theory and practice from related fields including computer science and MIS, accounting, auditing, other business disciplines like management and marketing, and the fields of economics, psychology, sociology, philosophy, and history is demonstrated by Figure 2.

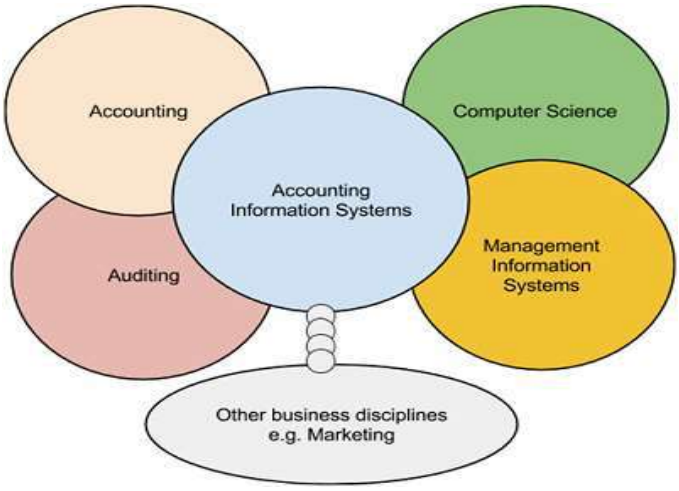


Figure 2: AIS Disciplines

Key Takeaways:

- Businesses utilize AIS to gather, organize, handle, analyze, retrieve, and provide financial information.
- AIS can be used by accountants, consultants, business analysts, managers, chief financial officers, auditors, and regulators.
- AIS facilitates communication and collaboration throughout a company's departments.
- Hardware and software are used by an efficient AIS to store and retrieve data.
- To safeguard sensitive information held by a corporation, an AIS's internal and external controls are essential.

A company's whole accounting and business activities can be tracked with an AIS. The components of an information assurance system (AIS) are people, procedures and instructions, data, software, information technology infrastructure, and internal controls. A detailed breakdown of each part is provided below.

1.1.1 People

The people who utilize an AIS are known as system users. An AIS facilitates the collaboration of several divisions within a firm. The following professionals may require the usage of an organization's AIS: Accountants; Consultants; Business analysts; Managers; Chief financial officers; and Auditors.

1.1.2 Procedures and Instructions

An AIS's procedures and instructions are the ways it employs for collecting, storing, retrieving, and processing data. There are both manual and automatic approaches. Data can be obtained from both internal and external sources. AIS software will be programmed with procedures and instructions. Procedures and instructions, on the other hand, should be "coded" into personnel through documentation and training. To be effective, the processes and instructions must be followed regularly.

1.1.3 Data

To store information, an AIS must include a database structure, such as structured query language (SQL), a computer language often used for databases. SQL allows AIS data to be edited and retrieved for reporting purposes. The AIS will also require a variety of input screens for different sorts of system users and data entry, as well as a variety of output formats to fulfill the needs of different users and information types. An AIS contains all financial data important to the organization's activities. Any business information that has an impact on the organization's finances should be entered into an AIS.

1.1.4 Software

The computer program used to store, retrieve, process, and analyze the company's financial data is the software component of an AIS. An AIS was a manual, paper-based system before computers, but most companies now use computer software as the foundation of the AIS. AIS software systems can be customized to meet the needs of various business kinds. If a present program does not meet a company's needs, the software can be produced internally with major input from end users, or it can be created by a third-party company specifically for the organization. It is also possible to outsource the system to a specialized company.

1.1.5 IT Infrastructure

Information technology infrastructure is just a fancy name for the hardware used to operate the accounting information system. Most of these hardware items a business would need to have anyway and can include the following: (i) Computers; (ii) Mobile devices; (iii) Servers; (iv) Printers; (v) Surge protectors; (vi) Routers; (vii) Storage media; and (viii) Back-up power supply.

A good AIS should also include a plan for maintaining, servicing, replacing, and upgrading components of the hardware system, as well as a plan for the disposal of broken and outdated hardware so that sensitive data is destroyed.

1.1.6 Internal Control

The internal controls of an AIS are the security measures it contains to protect sensitive data. These can be as simple as passwords or as complex as biometric identification. Biometric security protocols might include storing human characteristics that don't change over time, such as fingerprints, voice, and facial recognition. An AIS must have internal controls to protect against unauthorized computer access and to limit access to authorized users, which includes some users inside the company. It must also prevent unauthorized file access by individuals who are allowed to access only select parts of the system.

1.2 Organizational Structure

An organizational structure (OS) is a system that specifies how specific tasks are directed to fulfill an organization's goals. These activities may involve norms, positions, and obligations.

The organizational structure also impacts how information moves between tiers inside the corporation. For example, in a centralized structure, decisions are made from the top down, whereas in a decentralized structure, decision-making power is dispersed across several levels of the organization. Having an organizational structure in place assists businesses to remain efficient and focused.

An OS depicts how an organization's many resources come together and coincide with its aims. It precisely specifies staff functions, allowing them to work amicably and productively. This eliminates resource waste while increasing production. A company's workflow is determined by its operating system. A firm would be in disarray if it did not have a proper operating system. As a result, depending on its workflow requirements, a corporation must develop a centralized or decentralized operating system.

The structure of an organization helps to allocate: (i) responsibility; (ii) authority; and (iii) accountability. **Segmenting** by business function is a very common method of organizing.

Key Takeaways:

- An organizational structure outlines how certain activities are directed to achieve the goals of an organization.
- Successful organizational structures define each employee's job and how it fits within the overall system.
- A centralized structure has a defined chain of command, while decentralized structures give almost every employee a high level of personal agency.
- Types of organizational structures include functional, divisional, flat Archy, and matrix structures.
- Senior leaders should consider a variety of factors before deciding which type of organization is best for their business, including the business goals, industry, and culture of the company.

1.3 Evolution of Information System

An information system is a collection of processes, hardware, trained staff, software, infrastructure, and standards used to create, change, store, manage, and distribute data to suggest new business strategies and products. It leads to more efficient work processes and improved communication, allowing organizations to make better decisions. Over the last few decades, the Information System function has seen tremendous evolution.

The evolution of Information System function can be summarized as follows (Figure 3):

1950 – 1960	1960 – 1970	1970 – 1980	1980 – 1990	1990 – 2000	2000 - Present
Data Processing	**Management Reporting**	**Decision Support**	**Executive Support**	**Knowledge Management**	**E-Business**
Collects, stores, modifies and retrieve day-to-day transactions of an organization	Pre-specified reports and displays to support business decision-making	Interactive ad-hoc support for the decision-making process	Provide both internal and external information relevant to the strategic goals of the organization	Supports the creation, organization and dissemination of business knowledge	Greater connectivity, higher level of integration across applications

Figure 3: Evolution of Information System

The evolution of Information Technology function can be summarized as follows (Figure 4):

1940s – 1950s	1960s – 1970s	1980s – 1990s	2000 - Present
UNIVAC Computer	**Mainframe Computer**	**Personal Computer**	**Mobile**
a direct-access architecture with no operating system or remote access and used for scientific computing	a centralized architecture with operating system built-in within the hardware	the introduction of the Personal Computer(PC) and had Client/Server architecture with operating system separated from hardware	web services architecture with the virtual operating system

Figure 4: Evolution of Information Technology

An information system is a collection of electronic components that collect, generate, and store data. It is also used to convert data into information and distribute it to the appropriate locations. It typically consists of five primary components: hardware, software, data, system users, and procedures for transforming data into information (Peppard, 2016). Many organizations, corporations, institutions, and companies have implemented information systems to help with the efficient operation of commercial operations.

Information systems have developed from being tools of labor to tools of competitive advantage over time. They may, however, be expensive to install and maintain. The expense of putting the systems in place is usually insignificant in comparison to the benefits they provide to the firm. They have proven to be development drivers in firms that have used them to carry out their functions. Information systems have a positive impact on organizations, and many businesses have implemented them in their operations.

Organizations typically have primary goals and objectives for the operations in which they engage. They may have a strategy plan in place to better their intentions through the incorporation of information systems into their activities. Many businesses have established various information systems that relate to the company's aims and objectives in their desire to expand. It has simplified procedures and increased output. Computer system infrastructure has made business processes faster and more efficient (Cassidy, 2016).

Marketing, supply chain management, customer relationship management, inventory management, payroll management, human resource relationship management, accounting information management, transaction management, record keeping for the entire organization, distribution channel monitoring, and many other operations are among the primary activities that companies have incorporated into their systems. It has proven to be extremely profitable for all agencies.

Over time, there has been a significant shift toward automated systems. Various information systems have been developed over time to support corporate activities and operations. As previously stated, these strategies have even been employed effectively by businesses as a weapon for competitive advantage. Organizations that have embraced technology advancement have seen a favorable impact on their operations (Peppard, 2016). Managers at all levels have campaigned for the implementation of these information systems in their organizations. Many institutions around the world have used changing information technologies to carry out their functions.

As previously said, information systems have evolved over time. They started with manual systems that used paper to keep everything in organizations in order. They have progressed significantly over time into computerized systems that are easier to use and more effective than manual ones. They started with single systems designed to fulfill a specific task for the firm (Laudon, 2016). They have gradually evolved into integrated systems capable of performing multiple business tasks on the same platform.

Institutions have used Enterprise Resource Planning systems to help with the key tasks in which they are involved. An ERP is a system that combines multiple information systems into a single huge system that incorporates the primary business processes. Throughout the system, information is linked to one another. These systems comprise procedures that affect the entire organization (Urquhart, 2010). All organizational departments are integrated, which improves firm oversight and monitoring.

Since the introduction of the first computers, the infrastructure of information systems has evolved. They have been shown to be effective instruments for optimizing and improving managerial activities. System evolution in each individual field has substantially slowed their introduction over time. In the 1960s, information systems were first used to address accounting management challenges. However, they have been in use in earlier years as computers strived to evolve. Even the early machines, which used vacuum tubes and transistors, had the capability that modern information systems provide. Businesspeople and scientists employed them to complete tasks that had proven difficult to complete manually (Peppard, 2016). Simple arithmetic problems could be done using computers, but the results had to be recorded on paper.

People made use of computers to exhaustively improve the activities they were indulging in until the 1960s when they were able to use an accounting information system in their businesses.

1.4 Roles of Accountant

Accountants as Information Users	Accountants must be able to convey their needs to the systems professionals who design the system. The accountants should actively participate in systems development projects to ensure appropriate systems design.
Accountants as System Designers	The accounting function is responsible for the conceptual system, while the computer function is responsible for the physical system. The conceptual system determines the nature of the information required, its sources, its destination, and the accounting rules that must be applied.
Accountants as System Auditors	Accountants audit the already 'acclaimed' AIS to ensure that what is claimed to have been implemented is followed. Note that the role of auditors is not to fetch thieves in a system, but to ensure that rules claimed to be followed are backed up by documentation and where it can't be documented, the auditors should observe the process take place.

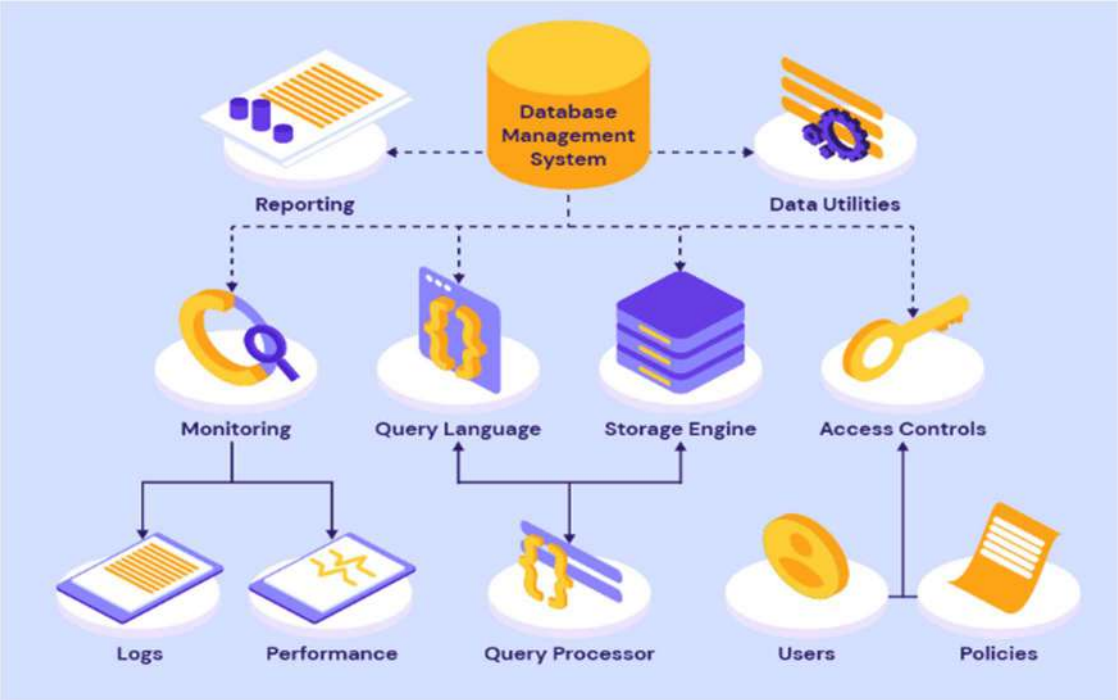
Chapter 2 Information System in Accounting

2.1 Database Management System (DBMS)

One of the major factors for realizing the need for a Computerized Accounting System is the overwhelming quantity of data in organizations. The conventionally used paper filing system, text documents, and even spreadsheets may not suffice for the growing need to track this voluminous and critical information. A simple solution to this situation is available in the form of a Database Management System (DBMS) (e.g. Access, Oracle, SQL Server, etc.) that provides a variety of software tools for organizing, processing, and flexibly querying data.

DBMS are software systems used to store, retrieve, and run queries on data. The DBMS serves as an interface between an end-user and a database, allowing users to create, read, update, and delete data in the database.

DBMS work using system commands. By inputting a command, the database administrator gives instructions to retrieve, modify, or load existing data. DBMS usually consists of several integrated components that carry out data management tasks.



The structure of DBMS is also referred to as Overall System Structure or Database Architecture, but it is different from the tier architecture of Database. The DBMS is divided into three components: (i) Query Processor; (ii) Storage Manager; and (iii) Disk Storage. Figure 5 shows the architecture of DBMS.

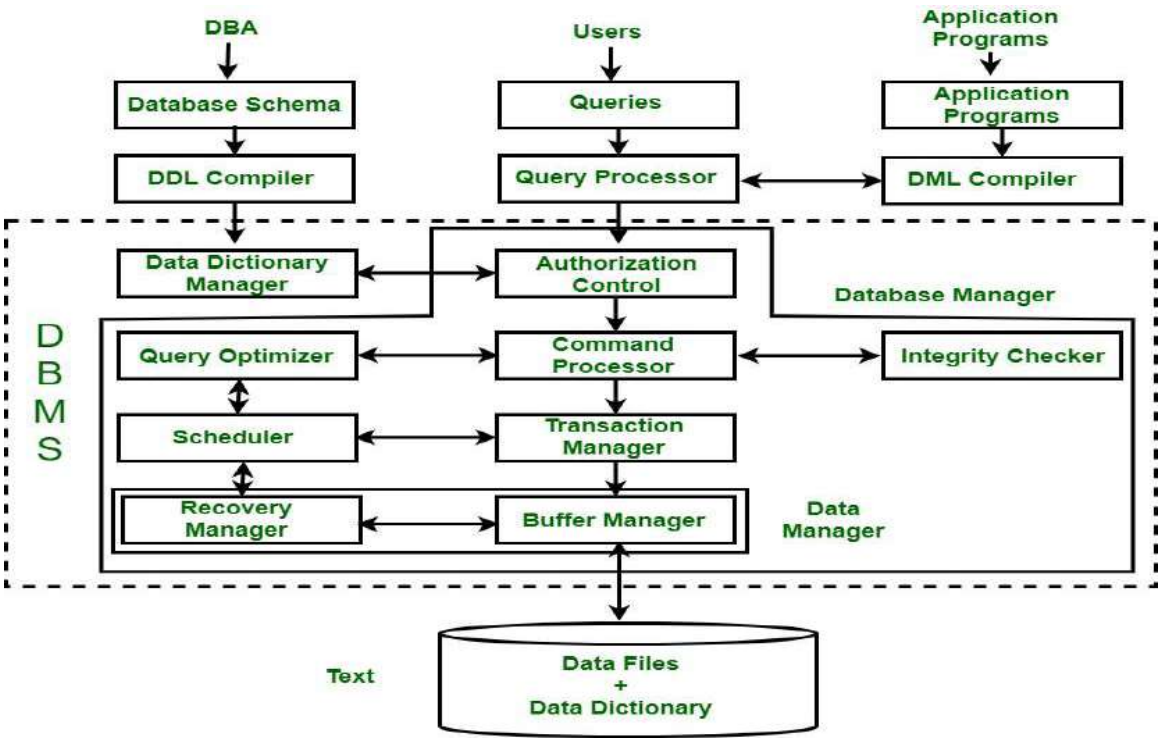


Figure 5: Architecture of DBMS

The structure of DBMS can be divided into three main components: the Internal Level, the Conceptual Level, and the External Level.

1. **Internal Level**: This level represents the physical storage of data in the database. It is responsible for storing and retrieving data from storage devices, such as hard drives or solid-state drives. It deals with low-level implementation details such as data compression, indexing, and storage allocation.
2. **Conceptual Level**: This level represents the logical view of the database. It deals with the overall organization of data in the database and the relationships between them. It defines the data schema, which includes tables, attributes, and their relationships. The conceptual level is independent of any specific DBMS and can be implemented using different DBMSs.
3. **External Level**: This level represents the user's view of the database. It deals with how users access the data in the database. It allows users to view data in a way that makes sense to them, without worrying about the underlying implementation details. The external level provides a set of views or interfaces to the database, which are tailored to meet the needs of specific user groups.

The three levels are connected through a schema mapping process that translates data from one level to another. The schema mapping process ensures that changes made at one level are reflected in the other levels.

2.1.1 File-oriented Approach

There are two basic types of files used to store data:

Master file	This file contains all the data relevant for an application. For example, in case or a payroll application, the master file permanently stores the details of each employee (name, address, pay scale. etc.). The transaction file calculates the current month's salary of each employee and updates it in the master file to maintain a permanent record. (conceptually like a ledger in a manual system)
Transaction file	This is a temporary file in which the data to be processed is stored. Once the data is processed, it is permanently stored in the master file. More specifically, the transaction file is used to update the master file. (conceptually like a journal in a manual system)

Companies spent many years creating new files and programs every time there was a need for information. The spread of master files led to the following issues:

a) Often the same data was stored in two or more separate files.
b) The specific data values stored in the different files were not always consistent.

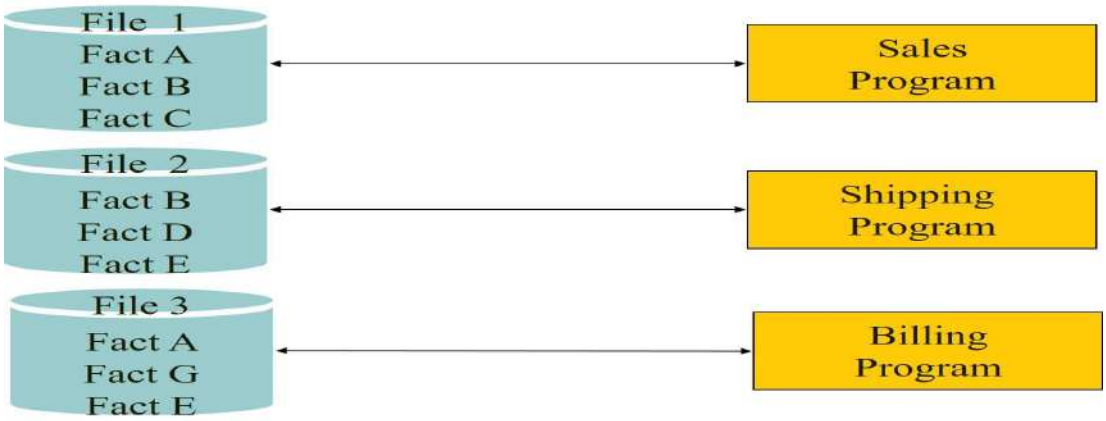
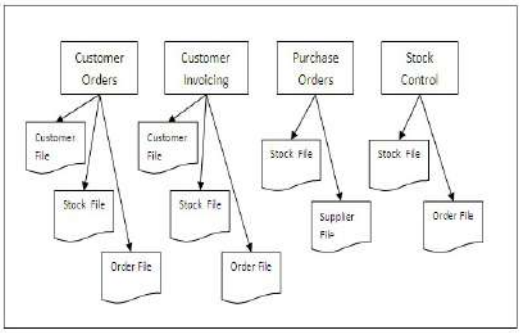


Figure 6: File-oriented Approach

2.1.2 Traditional File-based Approach

The term "file-based approach" refers to the circumstance in which data is saved in one or more discrete computer files that are specified and controlled by various application programs. Customers' information, for example, may be saved in one file, orders in another, and so on. To accomplish the numerous operations required by the firm, computer programs access the stored files. Each program, or often a group of linked programs, is referred to as a computer application. For example, the order processing application refers to all the programs involved in processing customer orders. Application programs dealing with purchase orders, invoicing, sales and marketing, suppliers, customers, workers, and so on may be included in the file-based approach.

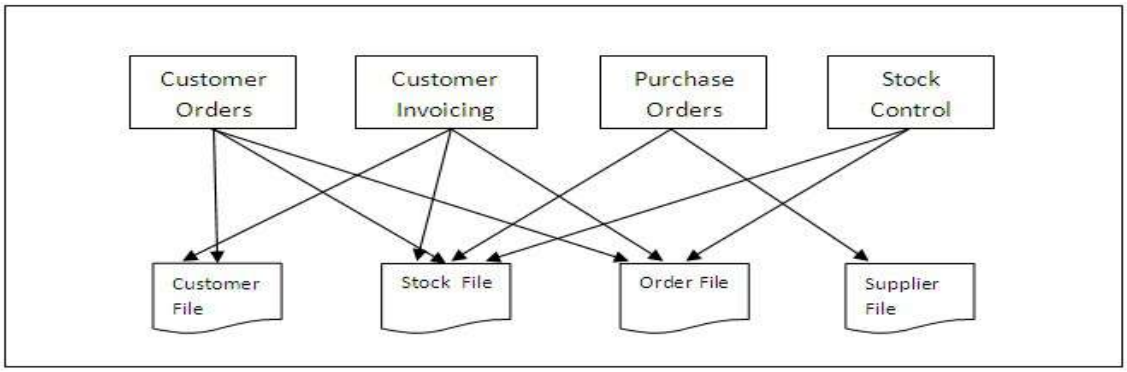


Limitations:

- **Data duplication**: Each program stores its separate files. If the same data is to be accessed by different programs, then each program must store its copy of the same data.
- **Data inconsistency**: If the data is kept in different files, there could be problems when an item of data needs updating, as it will need to be updated in all the relevant files; if this is not done, the data will be inconsistent, and this could lead to errors.
- **Difficult to implement data security**: Data is stored in different files by different application programs. This makes it difficult and expensive to implement organization-wide security procedures on the data.

2.1.3 The Shared File Approach

The introduction of shared files solves the problem of duplication and inconsistent data across different versions of the same file held by different departments, but other problems may emerge, including:



- **File incompatibility**: When each department had its version of a file for processing, each department could ensure that the structure of the file suited their specific application. If departments must share files, the file structure that suits one department might not suit another. For example, data might need to be sorted in a different sequence for different applications (for instance, customer details could be stored in alphabetical order, or numerical order, or ascending or descending order of customer numbers).
- **Difficult to control access**: Some applications may require access to more data than others; for instance, a credit control application will need access to customer credit limit information, whereas a delivery note printing application will only need access to customer name and address details. The file will still need to contain additional information to support the application that requires it.
- **Physical data dependence**: If the structure of the data file needs to be changed in some way (for example, to reflect a change in currency), this alteration will need to be reflected in all application programs that use that data file. This problem is known as physical data dependence and will be examined in more detail later in the chapter.
- **Difficult to implement concurrency**: While a data file is being processed by one application, the file will not be available for other applications or ad hoc queries. This is because, if more than one application is allowed to alter data in a file at one time, serious problems can arise in ensuring that the updates made by each application do not clash with one another. This issue of ensuring consistent, concurrent updating of information is an extremely important one and is dealt with in detail for database systems in the chapter on concurrency control. File-based systems avoid these problems by not allowing more than one application to access a file at one time.

2.1.4 The Database Approach

The database approach views data as an organizational resource that should be used by and managed for the entire organization, not just the originating department or function. The database approach is an improvement on the shared file solution as the use of DBMS provides facilities for querying, data security, and integrity, and allows simultaneous access to data by several different users. At this point, we should explain some important terminology:

- **Database**: A database is a collection of related data.
- **Database management system**: The term 'database management system', often abbreviated to DBMS, refers to a software system used to create and manage databases. The software of such systems is complex, consisting of several different components, which are described later in this chapter. The term database system is usually an alternative term for database management systems.
- **System catalog/Data dictionary**: The description of the data in the database management system.
- **Database application**: Database application refers to a program, or related set of programs, which use the database management system to perform the computer-related tasks of a particular business function, such as order processing.

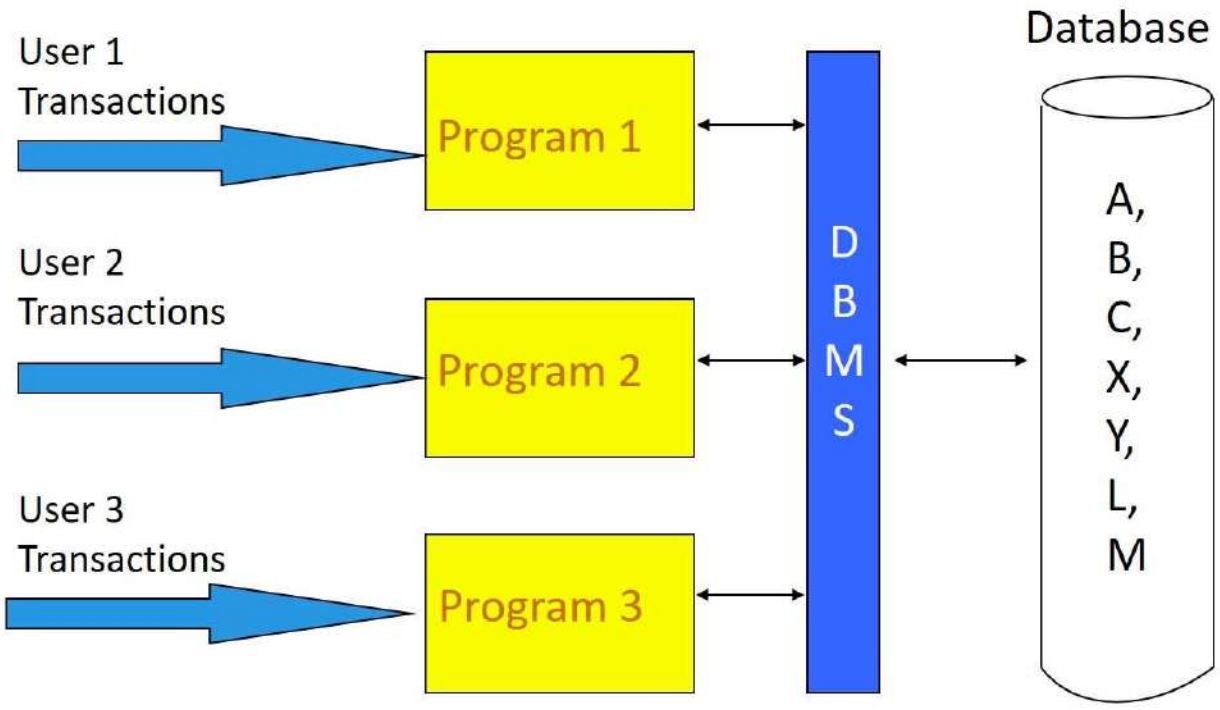


Figure 7: The Database Concept

2.2 Enterprise Resource Planning System (ERP)

Businesses use enterprise resource planning (ERP) as a platform to integrate and manage the essential elements of their operations. Because they simplify resource planning by combining all the processes needed to run a firm into a single system, many ERP software solutions are essential to companies.

In addition, an ERP software system can integrate human resources, finance, sales, marketing, planning, buying inventory, and more.

Key Takeaways:

- ERP software can integrate all the processes needed to run a company.
- ERP solutions have evolved over the years, and many are now typically web-based applications that users can access remotely.
- Some benefits of ERP include the free flow of communication between business areas, a single source of information, and accurate, real-time data reporting.
- There are hundreds of ERP applications a company can choose from, and most can be customized.
- An ERP system can be ineffective if a company doesn't implement it carefully.

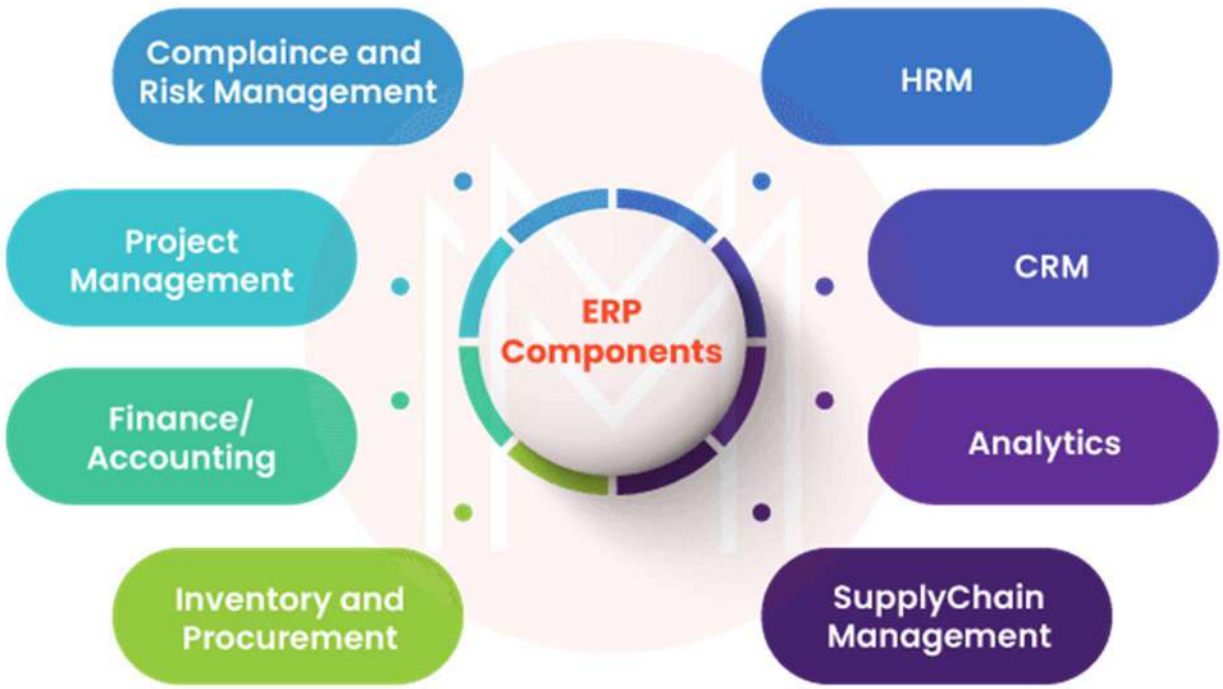


Figure 8: ERP Components

2.3 Electronic Commerce System (E-commerce)

The term "e-commerce" describes businesses and individuals who transact in goods and services via the Internet. Computers, tablets, smartphones, and other smart devices can be used for e-commerce, which is available in a variety of market categories. E-commerce offers almost any goods and services that can be imagined, including financial services like online banking and stock investing, as well as books, music, and airline tickets. It is seen as a very disruptive technology as a result.

Key Takeaways:

- E-commerce is the buying and selling of goods and services over the Internet.
- It is conducted over computers, tablets, smartphones, and other smart devices.
- Almost anything can be purchased through e-commerce today, which makes e-commerce highly competitive.
- It can be a substitute for brick-and-mortar stores, though some businesses choose to maintain both.
- E-commerce operates in several market segments including business-to-business, business-to-consumer, consumer-to-consumer, and consumer-to-business.

2.4 Accounting Software

The computer application known as accounting software helps accountants and bookkeepers record and summarize the financial activities of a company. Different products have different functionalities when it comes to accounting software. Bigger companies could decide to put in place a tailored solution that combines a ton of data from numerous departments. Off-the-shelf products are frequently selected by small businesses.

Key Takeaways:

- Accounting software is a computer program that assists accountants in recording and reporting a firm's financial transactions.
- Different firms have different accounting software needs. Some may only need generic, off-the-shelf accounting software, while others will need customized, complex accounting software.
- Accounting software makes accounting calculations easier to perform, understand, and analyze.
- Less office space is required with accounting software, as it makes the use of physical data obsolete, which saves costs regarding rent.
- Accounting software makes retrieving old accounting data easier, which is helpful for internal and external audits.
- Companies that offer accounting software include Intuit, Microsoft, SAP, and Oracle.

2.4.1 Accounting Software - Access UBS

Access UBS is a comprehensive accounting solution, bringing together all accounting operations into a central place, making it more efficient, more in control, and giving real-time visibility and insight across the entire organization. (Appendix 1 - Installation of Access UBS)

2.4.2 Accounting Software - AutoCount

AutoCount accounting software is integrated business software that amalgamates Accounting, Inventory Control, Invoicing, Payroll, and POS solutions into one, single business application which facilitates the smooth functioning of a business. Its applications are wide, and it caters to all types of businesses. (Appendix 2 - Installation of AutoCount)

2.4.3 Accounting Software - Others

QuickBooks

Xero

SQL Account

Oracle Netsuite

AccountEdge

kashoo

Chapter 3 Transaction Process

3.1 Transaction Cycles and Accounting Records

The eight-step accounting cycle is essential for all sorts of bookkeepers to understand. It divides the complete process of a bookkeeper's duties into eight main parts. Many of these processes are frequently automated by accounting software and technological applications. Knowing and using the stages manually, on the other hand, can be critical for small business accountants working on the accounts with limited technical support.

Key Takeaways:

- The accounting cycle is a procedure meant to assist business owners with the financial accounting of their operations.
- Eight steps are typically involved in an accounting cycle.
- Comprehensive financial performance information is given to business owners at the end of the accounting cycle, which they may utilize to assess their company.
- The identification of transactions, their recording in a journal, posting, the unadjusted trial balance, the worksheet, adjusting journal entries and financial statements, and closing the books are the eight steps of the accounting cycle.
- Even though accounting is done virtually entirely electronically, it still needs to be double-checked.

3.1.1 The Eight Steps of the Accounting Cycle

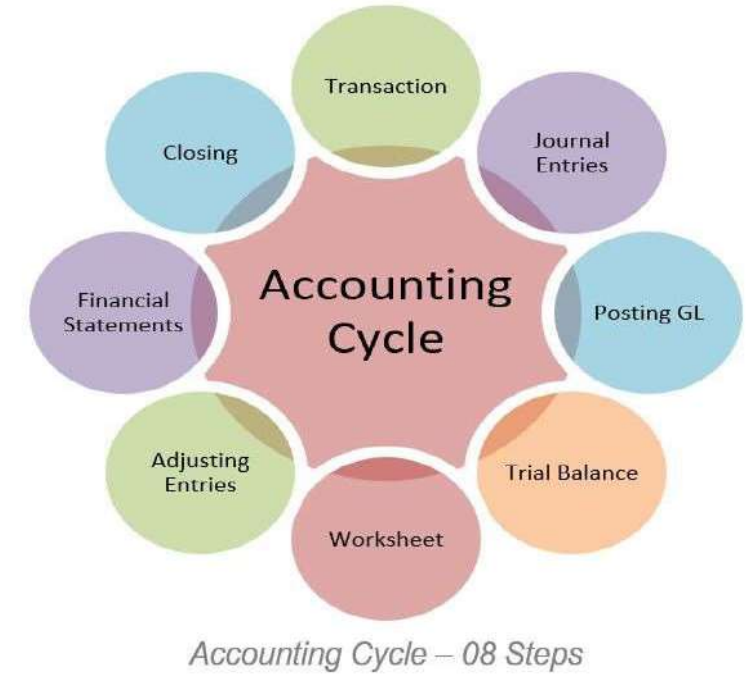


Figure 9: The Accounting Cycle in Eight Steps

Step 1: Identify Transactions

Identifying transactions is the first stage in the accounting cycle. Throughout the accounting cycle, businesses will have numerous transactions. Every one of them must be correctly recorded in the company's books. Recordkeeping is required for all types of transactions. To record sales transactions, many businesses will use point-of-sale equipment linked to their books. Aside from sales, costs might take numerous forms.

Step 2: Record Transactions in a Journal

The second part of the cycle is creating journal entries for every transaction. Point-of-sale technology can help with steps one and two of the process, but businesses still need to keep track of their spending. Cash accounting or accrual accounting will be chosen after transactions are formally documented. Keep in mind that accrual accounting mandates matching income and expenses, thus both must be recorded at the time of sale.

Step 3: Posting

A transaction needs to be posted to a general ledger account after it has been documented as a journal entry. All accounting transactions are compiled by account in the general ledger. This makes it possible for a bookkeeper to monitor account statuses and financial conditions. One of the general ledger accounts that is viewed the most frequently is the cash account, which displays the amount of cash that is available. Though almost all accounting is now done electronically, the ledger is less of an active concern because all transactions are automatically logged. Originally, the ledger was the gold standard for recording transactions.

Step 4: Unadjusted Trial Balance

A trial balance is determined at the conclusion of the accounting period as the fourth phase of the accounting cycle. A trial balance alerts the company to the unadjusted amounts in each account. The unadjusted trial balance is then sent to the fifth step for testing and analysis. After the accounting period has ended and all transactions have been detected, documented, and posted to the ledger (usually and automatically, but not always), this is the first stage. This step guarantees that the overall credit and debit balances are equal. This stage can catch a lot of mistakes if their values do not match.

Step 5: Worksheet

The fifth phase in the cycle is to analyze a worksheet and locate modifying entries. To guarantee that debits and credits are equal, a worksheet is developed and used. If there are any differences, changes must be made. Adjusting entries may be required for revenue and expense matching when utilizing accrual accounting, in addition to identifying any inaccuracies.

Step 6: Adjusting Journal Entries

In the sixth step, a bookkeeper adjusts. Adjustments are recorded as journal entries where necessary.

Step 7: Financial Statements

In the seventh phase, the company generates its financial statements after making all amended entries. Most businesses will have an income statement, a balance sheet, and a cash flow statement.

Step 8: Closing the Books

In the eighth phase, a company closes its books at the end of the day on the designated closure date to complete the accounting cycle. An overview of the performance for the time is given in the closing remarks. The accounting cycle restarts with a new reporting period following closure. Closing is usually a great opportunity to check an event and task calendar, plan for the upcoming reporting period, and submit papers.

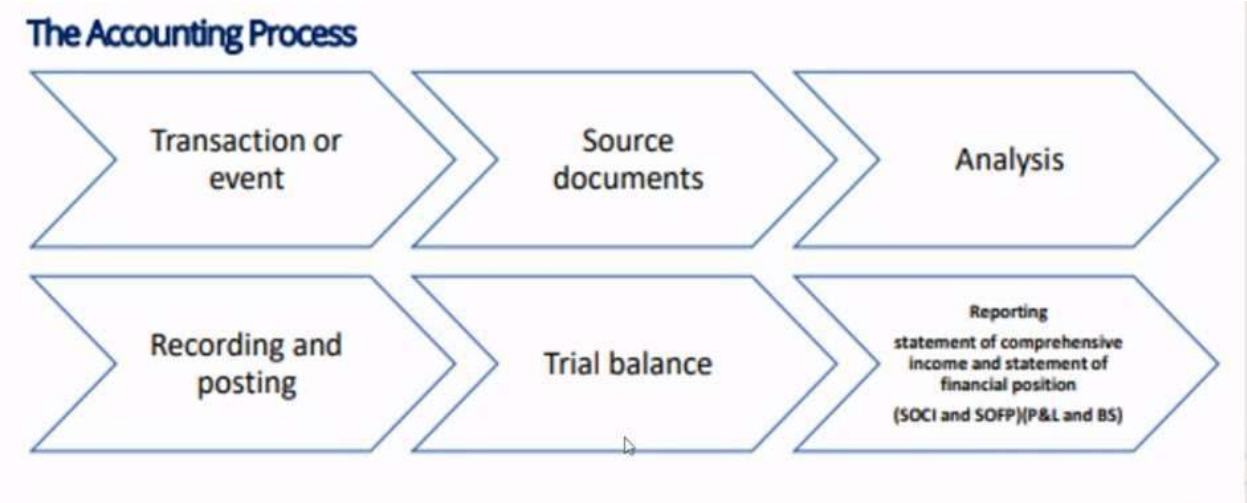


Figure 10: Accounting Process

3.2 Documentation Techniques

The old saying that a picture is worth a thousand words is extremely applicable when it comes to documenting systems. A written description of a system can be wordy and difficult to follow. Experience has shown that a visual image can convey vital system information more effectively and efficiently than words. As both systems designers and auditors, accountants use system documentation routinely. The ability to document systems in graphic form is thus an important skill for accountants to master. Documentation in a Computer-based environment is necessary for many reasons.

Five common documentation techniques:

a) Entity Relationship Diagram (ERD)
b) Data Flow Diagram (DFD)
c) Document Flowchart
d) System Flowchart
e) Program Flowchart

3.2.1 Entity Relationship Diagram (ERD)

ERD is a documentation technique to represent the relationship between entities in a system.

The REA model version of ERD is widely used in AIS. REA uses 3 types of entities:

- Resources (cash, raw materials)
- Events (release of raw materials into the production process)
- Agents (inventory control clerk, vendor, production worker)

3.2.2 Data Flow Diagrams (DFD)

- use symbols to represent the processes, data sources, data flows, and entities in a system.
- represent the logical elements of the system.
- do not represent the physical system.

3.2.3 Document Flowcharts

To demonstrate the preparation of a document flowchart, let's assume that an auditor needs to flowchart a sales order system to evaluate its internal controls and procedures. The auditor will begin by interviewing individuals involved in the sales order process to determine what they do. This information will be captured in a set of facts like those below. Keep in mind that the purpose here is to demonstrate flowcharting. Thus, for clarity, the system facts are intentionally simplistic.

3.2.4 System Flowcharts

- Illustrate the relationship between processes and the documents that flow between them.
- Contains more details than data flow diagrams.
- Depict the separation of functions in a system.

3.2.5 Program Flowcharts

Every program represented in a system flowchart should have a supporting program flowchart that describes its logic.

Accountants sometimes use program flowcharts to verify the correctness of program logic. They compare flowcharts to the actual program code to determine whether the program is doing what the documentation describes. Program flowcharts provide essential details for conducting information technology (IT) audits.

Figure 11: Source Documents

3.3 Computer-based Accounting Systems

A computerized accounting system is an information system that processes financial transactions as per IAS to produce reports required by users. Computerized accounting systems are software programs that are stored on a company's computer, or network server, or remotely accessed via the Internet. Some of the possible uses of computers in the accounting field are:

1. maintain books of original entry.
2. maintain ledger accounts.
3. prepare financial statements.
4. maintain records of inventory.
5. maintain non-current assets' registers.
6. draft and issue purchase orders.
7. draft and issue sales invoices.
8. prepare statements of accounts for individual customers.
9. prepare budgets & forecasts including cash budgets.
10. calculate accounting ratios.
11. instant production of different reports.

In a computerized accounting system, the framework of storage and processing of data is called an operating environment that consists of hardware and software.

Computer hardware refers to the machines used to run the whole computer system. It comprises a computer processing unit, processor, monitor, keyboard, printers, scanners, external disks, networking cables, etc.

Software represents the set of instructions given to computers to carry out their tasks. This not only comprises the package of instructions used to run the operating system but may also include some other software packages such as MS Office and QuickBooks accounting software.

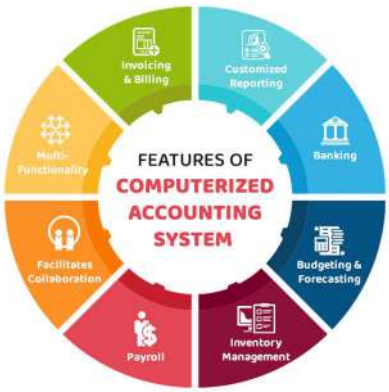


Figure 12: Features of Computerized Accounting System

3.4 Transactions Cycle Data

A transaction cycle is an interlocking set of business transactions. Most of these transactions can be aggregated into a relatively small number of transaction cycles related to the sale of goods, payments to suppliers, payments to employees, and payments to lenders. A key role of the accountant is to design an appropriate set of procedures, forms, and integrated controls for each of these transaction cycles, to mitigate the opportunities for fraud and ensure that transactions are processed in as reliable and consistent a manner as possible. We explore the nature of these transaction cycles below.

3.4.1 Sales Cycle

A company receives an order from a customer, examines the order for creditworthiness, ships goods or provides services to the customer, issues an invoice, and collects payment. This set of sequential, interrelated activities is known as the sales cycle, or revenue cycle. Because the various steps in this cycle cross many departments, it is a good area in which to computerize transactions, so that people throughout the business can access transactions from a central database.

3.4.2 Purchasing Cycle

A company issues a purchase order to a supplier for goods, receives the goods, records an account payable, and pays the supplier. There are several ancillary activities, such as the use of petty cash or procurement cards for smaller purchases. This set of sequential, interrelated activities is known as the purchasing cycle or expenditure cycle.

3.4.3 Payroll Cycle

A company records the time of its employees, verifies hours and overtime worked, calculates gross pay, deducts taxes and other withholdings, and issues paychecks to employees. Other related activities include the payment of withheld income taxes to the government, as well as the issuance of annual W-2 forms to employees. This cluster of activities is known as the payroll cycle. It can comprise a substantial proportion of all transactions in a service business, where there tend to be many employees.

3.4.4 Financing Cycle

A company issues debt instruments to lenders, followed by a series of interest payments and repayments of the debt. Also, a company issues stock to investors in exchange for periodic dividend payments and other payouts if the entity is dissolved. These clusters of transactions are more diverse than the preceding transaction cycles but may involve substantially more money.

3.5 Financial Reporting Cycle

The reporting cycle involves the running, managing, updating, and reporting of a company's accounts. The cycle usually runs concurrently with the planning and budgeting cycles. It ensures that the company is ready to begin the following period. A company's planning/budgeting cycles and reporting cycles are usually independent of each other but can involve the same people in their preparation.

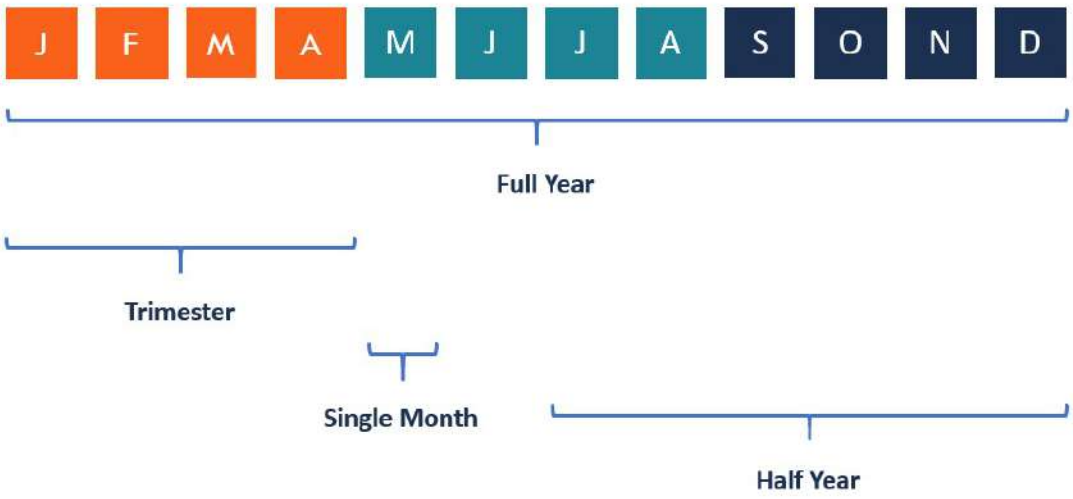


Figure 13: Reporting Cycles

The planning cycle involves future estimations in spending and income cash flows while the reporting cycle gives the current standings of the company, with regards to assets, revenue, and expenses, after a specified period of business time. Therefore, the planning cycle looks forward in terms of time, while the reporting cycle looks backward on business activity and the most recent standings.

A reporting period, also known as an accounting period, is a discrete and uniform period for which the financial performance and financial position of a company are reported and analyzed. In other words, the data contained in the financial statements are generated by the company's finance professionals from operations during the reporting period.

Figure 14: Reporting Periods

A company usually engages in many continuous activities. The activities can be broken down into specific, distinct, and short intervals for financial reporting. Without a reporting period, accountants wouldn't know the start and ending date to create financial reports.

Chapter 4 Analysis of Reports

4.1 Adjustment Entries

An adjusting journal entry is an entry in a company's general ledger that occurs at the end of an accounting period to record any unrecognized income or expenses for the period. When a transaction is started in one accounting period and ended in a later period, an adjusting journal entry is required to properly account for the transaction.

Adjusting journal entries can also refer to financial reporting that corrects a mistake made previously in the accounting period.

The purpose of adjusting entries is to convert cash transactions into the accrual accounting method. Accrual accounting is based on the revenue recognition principle that seeks to recognize revenue in the period in which it was earned, rather than the period in which cash is received.

An adjusting journal entry involves an income statement account (revenue or expense) along with a balance sheet account (asset or liability). It typically relates to the balance sheet accounts for accumulated depreciation, allowance for doubtful accounts, accrued expenses, accrued income, prepaid expenses, deferred revenue, and unearned revenue.

Income statement accounts that may need to be adjusted include interest expense, insurance expense, depreciation expense, and revenue. The entries are made by the matching principle to match expenses to the related revenue in the same accounting period. The adjustments made in journal entries are carried over to the general ledger that flows through to the financial statements.

Types of Adjusting Journal Entries

In summary, adjusting journal entries is most commonly accruals, deferrals, and estimates.

Accruals	Deferrals	Estimates
Accruals are revenues and expenses that have not been received or paid, respectively and have not yet been recorded through a standard accounting transaction.	Deferrals refer to revenues and expenses that have been received or paid in advance, respectively, and have been recorded, but have not yet been earned for use.	Estimates are adjusting entries that record non-cash items, such as depreciation expenses, allowance for doubtful accounts, or the inventory obsolescence reserve.

Notes:

Not all journal entries recorded at the end of an accounting period are adjusting entries. For example, an entry to record a purchase of equipment on the last day of an accounting period is not an adjusting entry.

4.2 Financial Statement Analysis

Financial statement analysis is the process of analyzing a company's financial statements for decision-making purposes. External stakeholders use it to understand the overall health of an organization and to evaluate financial performance and business value.

a) Financial statement analysis is used by internal and external stakeholders to evaluate business performance and value.
b) Financial accounting calls for all companies to create a balance sheet, income statement, and cash flow statement, which form the basis of financial statement analysis.
c) Horizontal, vertical, and ratio analysis are three techniques that analysts use when analyzing financial statements.

4.3 Arrange Report of Financial Statement

Because information from one statement is carried over to the next, financial statements are created in a particular order. The procedure starts with the trial balance and continues with the modified trial balance, income statement, balance sheet, and statement of owner's equity.

4.3.1 Trial Balance

The trial balance is the balance of all the accounts at the end of the accounting period. For example, if the business's accounting cycle for May runs from May 1 through May 31, the balances at the end of business on the 31st become the entries for the trial balance.

4.3.2 Adjusted Trial Balance

After the trial balance is complete, adjusting entries are made. Examples of accounts that often require an adjustment include wages payable, accumulated depreciation, and prepaid office supplies. After the needed adjusting entries are completed, all the accounts are included in the adjusted trial balance. These totals are used to compile the financial statements.

4.3.3 Income Statement

The first financial statement that is compiled from the adjusted trial balance is the income statement. Its name is self-explanatory. It's a statement that lists the revenues and expenses of the business for a specific period. Revenues are listed first, and then the company's expenses are listed and subtracted.

At the bottom of the income statement is the total. If revenues were higher than expenses, the business had net income for the period. If expenditures were greater than the revenues, the business experienced a net loss for the period.

4.3.4 Balance Sheet

One way of explaining the balance sheet is that it includes everything that does not go on the income statement. The balance sheet lists all the assets and liabilities of the business. For example, assets include cash, accounts receivable, property and equipment, office supplies, and prepaid expenses. Liabilities include accounts payable, notes payable, any long-term debt the business has, and taxes payable. Owner's equity is also included on the balance sheet. This statement should prove that the accounting formula "Assets = Liabilities + Owner's Equity" is in check because the asset side should equal the combined totals of liabilities and owner's equity.

4.3.5 Statement of Owner's Equity

The statement of owner's equity is a summary of the business owner's investment in the business. It shows any capital the owner put into the business, any withdrawals made as a salary, and the net income or net loss from the current period. This is one reason the income statement must be prepared first, because the calculations from that statement are needed to complete the owner's equity statement.

Chapter 5 Information Technology Control

5.1 Operating System and Database Management System Control

Database control refers to the task of enforcing regulations to provide correct data to authentic users and applications of a database. So that correct data is available to users, all data should conform to the integrity constraints defined in the database. An operating system allows many users to use the same hardware concurrently, i.e. in parallel, and a database system allows the same database to be concurrently accessed by many application programs.

The term data management collectively describes those operating system functions that control the flow of data from an input/output (I/O) device to the processing program's data buffer and vice versa. It describes the functions that enforce data storage conventions. An operational database management system is software that is designed to allow users to easily define, modify, retrieve, and manage data in real-time. While conventional databases rely on batch processing, operational database systems are oriented toward real-time, transactional operations.

Database controls include access controls, integrity controls, application software controls, concurrency controls, cryptographic controls, file handling controls, audit trail controls, and existence controls.

5.2 Application Control

Application controls improve the quality of the data that is input into a database. An example of application control is the validity check, which reviews the data entered on a data entry screen to ensure that it meets a set of predetermined range criteria. A completeness check will examine a data entry screen to see if all fields have an entry. Another application control is the identity check, which verifies that an authorized user is accessing the data.

Application controls can be classified as **(1) input controls**, **(2) processing controls**, and **(3) output controls**. Input controls check data for accuracy and completeness when they enter the system. There are specific input controls for input authorization, data conversion, data editing, and error handling.

5.3 Electronic Data Interchange Controls

Electronic Data Interchange (EDI) is the computer-to-computer exchange of business documents in a standard electronic format between business partners. By moving from a paper-based exchange of business documents to one that is electronic, businesses enjoy major benefits such as reduced cost, increased processing speed, reduced errors, and improved relationships with business partners.

Exercise

Lab Exercise 1

JABATAN PERDAGANGAN
POLITEKNIK UNGKU OMAR

DPA20043
COMPUTERIZED ACCOUNTING SYSTEM

ASSESSMENT: LAB EXERCISE 1

ARAHAN PENILAIAN :

1. Jawab semua soalan dalam masa **2 JAM 30 MINIT.**
2. Jawapan adalah secara berkumpulan (1 kumpulan = 2 pelajar).
3. Jawapan perlu dihantar melalui link yang disediakan di platform CIDOS.

NO PENDAFTARAN	NAMA	CLO	MARKAH
		1	
		2	/ 12.5
		3	
		4	
		JUMLAH	/ 12.5

INSTRUCTION:

A. Based on the information given in this laboratory exercise, by using a **PC** with **AutoCount** software installed, create a new account book, and complete all the tasks given.
B. After completing, back up and use the file name format:
   LE1 - MATRIXNO&NAME1<*space*>**MATRIXNO&NAME2**<*end*>
C. Complete Profit & Loss Statement as of 31 January 2024.
D. Pass up question paper and answer sheet together with backup external drive which contains the backup files.

SUTERA BAYU ENTERPRISE is a trading company that closes its accounts on 31 December every year. Setup the company details as below:

SUTERA BAYU ENTERPRISE
B2-3A-01, BLOCK B2
MERITUS@OASIS CORPORATE PARK
NO. 2, JALAN PJU 1A/2, ARA DAMANSARA
47301 PETALING JAYA, SELANGOR
TEL: 03-3000 3000
COMPANY REG. NO.: LE1022324

1. The owner has decided to use the Autocount Accounting system to record all accounting entries **starting from Fiscal Year 01/01/2024.** By referring to the following information, set up your chart of accounts and their opening balances.

SUTERA BAYU ENTERPRISE
Profit & Loss Statement as of 31st December 2023

	RM	RM
Sales		96,510.00
Less: Cost of Sales		
Opening Stock	17,000.00	
Purchases	49,910.00	
Less: Closing Stock	-19,000.00	47,910.00
Gross Profit		**48,600.00**
Less: Expenses		
Advertisement	1,400.00	
Water & Electricity	1,500.00	
Telephone Charges	1,600.00	
Rental	6,000.00	
Salaries	1,800.00	
Postage & Printing	600.00	
Office Maintenance	450.00	13,350.00
Net Profit (Loss)		**35,250.00**

SUTERA BAYU ENTERPRISE

Balance Sheet as of 31st December 2023

	RM	RM	RM
Fixed Assets	**Cost**	**Acc. Dep.**	**NBV**
Furniture & Fitting	10,000.00	2,000.00	8,000.00
Office Equipment	27,500.00	5,250.00	22,250.00
	37,500.00	7,250.00	30,250.00
Current Assets			
Trade Debtors		44,700.00	
Cash at Bank		40,600.00	
Cash in Hand		7,500.00	
Stock		19,000.00	
		111,800.00	
Less: **Current Liabilities**			
Trade Creditors		45,950.00	
Accruals		600.00	
		46,550.00	
Working Capital			65,250.00
			95,500.00
Financed By:			
Capital			
Capital			50,000.00
Retained Earnings b/f			10,250.00
Retained Earnings current			35,250.00
			95,500.00

Add the following key customers and suppliers and record their opening balances:

Debtor	Balance as at 31st December 2023
Asadi Sdn Bhd	14,750.00
Delima Sdn Bhd	14,000.00
Gaharu Enterprise	15,950.00

Creditor	Balance as at 31st December 2023
Bahtera Sdn Bhd	12,800.00
Cempaka Sdn Bhd	14,650.00
Kencana Enterprise	18,500.00

Set the starting number for the following documents:

- Sales Invoice to start from I-00004

2. Record the following entries related to customers in January 2024:

Debtor	***Document No.***	***Date***	***Description***	***Amount***
Delima Sdn Bhd	I-0004	05 Jan	Sales	12,750.00
Asadi Sdn Bhd	I-0005	06 Jan	Sales	9,000.00
Gaharu Enterprise	I-0006	07 Jan	Sales	6,000.00
Delima Sdn Bhd	<<New>>	14 Jan	The customer paid on his account. Cheque No: MBB 450231	12,000.00
Gaharu Enterprise	<<New>>	15 Jan	The customer paid on his account. Cheque No: RHB 136526	12,950.00
Asadi Sdn Bhd	<<New>>	17 Jan	Cheque SBC 039435 was received to clear the outstanding amount.	23,750.00

3. Record the following entries related to suppliers in January 2024:

Creditor	***Document No. / Supplier Doc No.***	***Date***	***Description***	***Amount***
Kencana Enterprise	2355	07 Jan	Purchases	10,000.00
Bahtera Sdn Bhd	4321	08 Jan	Purchases	7,500.00
Cempaka Sdn Bhd	5513	09 Jan	Purchases	5,350.00
Bahtera Sdn Bhd	<<New>>	15 Jan	Payment on account. Cheque No: BMB 5001	11,500.00
Kencana Enterprise	<<New>>	17 Jan	Payment on account. Cheque No: BMB 5002	11,000.00
Cempaka Sdn Bhd	<<New>>	19 Jan	Payment on account. Cheque No: BMB 5003	8,650.00

4. Record the following cash book entries in January 2024:

Date	***Description***	***Amount***
20 Jan	CASH SALES Credit into a **500-1000 Cash Sales** account and received cash.	200.00
25 Jan	Pembekal Barang Voon to purchase Item H Payment by Cheque BMB 5004	900.00
26 Jan	Paid net salary. Cheque No: BMB 5005	1,100.00

5. Record the following journal entries in January 2024:

Description	**JV No.**	**Date**	**Acc. No / Description**	**Debit**	**Credit**
Staff Claim – Nazmi	<<New>>	30 Jan	903-0000 Telephone Charges	60	
			320-0000 Cash in hand		60

6. The value of stock as of 31 January 2024 is RM26,000.00

7. Complete Profit & Loss Statement as of 31 January 2024.

SUTERA BAYU ENTERPRISE

Profit & Loss Statement as of 31st January 2024

	RM	**RM**
Sales		
Cash Sales		
Less: Cost of Sales		
Opening Stock		
Purchases		
Less: Closing Stock		
Gross Profit		
Less: Expenses		
Telephone Charges		
Salaries		
Net Profit (Loss)		

MARKING RUBRIC:

CRITERIA	POOR (1-2)	FAIR (3-4)	SATISFACTORY (5-6)	GOOD (7-8)	EXCELLENT (9-10)	MARKS	
Preparation (Account Maintenance)	Hardly able to identify and discuss the relevant theories (ill-prepared) in initiating the task	Fairly able to identify and discuss the relevant theories in initiating the task	Averagely able to identify and discuss the relevant theories in initiating the task	Good at identifying and discussing the relevant theories in initiating the task	Excellent at identifying and discussing the relevant theories (well-prepared) in initiating the task		**/ 20**
Application (Opening Balance)	Hardly suitable skill sets used, thus need a lot of improvement	Occasionally suitable skill sets used, thus need quite a lot of improvement	Sometimes suitable skill sets used, thus need moderate improvement	Frequently suitable skill sets used, thus need little improvement	Very frequently suitable skill sets used, thus need very little/no improvement		**/ 20**
	Achieve less than 60% of the required skills needed	Achieve between 60% and 69% of the required skills needed	Achieve between 70% and 79% of the required skills needed	Achieve between 80% and 89% of the required skills needed	Achieve more than 89% of the required skills needed		
Method (Submit Question & Backup)	Poor implementation of task with no flow of steps/workings shown properly	Fair implementation of task with few flows of steps/workings shown properly	Satisfactory task implementation with some flows of steps/workings shown properly	Good implementation of task with more flows of steps/workings shown properly	Excellent task implementation with most flows of steps/workings shown properly		**/ 20**
Progression / Rectification (In class – practical)	Poor quality of the completed task with less than 60% of accuracy of final answers (facts and figures)	Fair quality of the completed task between 60% and 69% of accuracy of final answers (facts and figures)	Satisfactory quality of the completed task between 70% and 79% of accuracy of final answers (facts and figures)	Good quality of the completed task between 80% and 89% of accuracy of final answers (facts and figures)	Excellent quality of the completed task with more than 89% of accuracy of final answers (facts and figures)		**/ 20**
Format / Output (P&L Statement)	Overall results indicate low level of practical skills	Overall results indicate slightly low level of practical skills	Overall results indicate average level of practical skills	Overall results indicate slightly high level of practical skills	Overall results indicate high level of practical skills		**/ 20**
Total Marks (100 / 100 * 12.5%)							**12.5**

Lab Exercise 2

JABATAN PERDAGANGAN
POLITEKNIK UNGKU OMAR

DPA20043
COMPUTERIZED ACCOUNTING SYSTEM

ASSESSMENT: LAB EXERCISE 2

ARAHAN PENILAIAN :

1. Jawab semua soalan dalam masa **2 JAM 30 MINIT.**
2. Jawapan adalah secara berkumpulan (1 kumpulan = 2 pelajar).
3. Jawapan perlu dihantar melalui link yang disediakan di platform CIDOS.

NO PENDAFTARAN	NAMA	CLO	MARKAH
		1	
		2	
		3	/ 12.5
		4	
		JUMLAH	/ 12.5

INSTRUCTION:

A. Based on the information given in this laboratory exercise, by using a **PC** with **AutoCount** software installed, create a new account book, and complete all the tasks given.
B. After completing, back up and use the file name format:
   LE2 – MATRIXNO & NAME
C. Complete Profit & Loss Statement as of 31 January 2024.
D. Pass up question paper and answer sheet together with backup external drive which contains the backup files.

AUTO GARAGE ENTERPRISE is a trading company that closes its accounts on 31 December every year. Setup the company details as below:

AUTO GARAGE ENTERPRISE + MATRIX NUMBER
B2-3A-01, BLOCK B2
MERITUS@OASIS CORPORATE PARK
NO. 2, JALAN PJU 1A/2, ARA DAMANSARA
47301 PETALING JAYA, SELANGOR
TEL: 03-3000 3000
COMPANY REG. NO.: LE2022324

Fiscal Year Date	01/01/2024
Actual Start Date	01/01/2024
Country	Malaysia (MYR)

Remark	**LAB-EXERCISE2**
Color	**YELLOW**

1. The owner has decided to use the Autocount Accounting system to record all accounting entries **starting from Fiscal Year 01/01/2024.** By referring to the following information, set up your chart of accounts and their opening balances.

AUTO GARAGE ENTERPRISE + MATRIX NUMBER

Profit & Loss Statement as of 31st December 2023

	RM	**RM**
Sales		80,000.00
Less: Cost of Sales		
Opening Stock	20,000.00	
Purchases	15,000.00	
Less: Closing Stock	-12,000.00	23,000.00
Gross Profit		**57,000.00**
Less: Expenses		
Advertisement	5,000.00	
Depreciation of Fixed Assets	1,500.00	
Salaries	21,000.00	
EPF	2,300.00	
SOCSO	2,000.00	
Traveling Expenses	4,000.00	
Water & Electricity	7,200.00	
Telephone Charges	960.00	
Postage & Printing	210.00	
Office Maintenance	2,500.00	46,670.00
Net Profit (Loss)		**10,330.00**

AUTO GARAGE ENTERPRISE + MATRIX NUMBER

Balance Sheet as of 31st December 2023

	RM	RM	RM
Fixed Assets	**Cost**	**Acc. Dep.**	**NBV**
Furniture & Fitting	20,000.00	12,000.00	8,000.00
Office Equipment	5,000.00	4,000.00	1,000.00
Motor Vehicles	8,000.00	6,000.00	2,000.00
	33,000.00	22,000.00	11,000.00
Current Assets			
Trade Debtors		40,000.00	
Cash at Bank		67,000.00	
Cash in Hand		2,000.00	
Stock		12,000.00	
		121,000.00	
Less: **Current Liabilities**			
Trade Creditors		13,000.00	
EPF & SOCSO Accruals		216.00	
		13,216.00	
Working Capital			107,784.00
			118,784.00
Financed By:			
Capital			
Capital			108,454.00
Retained Earnings			10,330.00
			118,784

Add the following key customers and suppliers and record their opening balances:

Customer	Balance as at 31st December 2023	Document No.	Description
Ah Kew Motor Trading	18,700.00	01	BALANCE B/F
John Sdn Bhd	21,300.00	02	BALANCE B/F

Supplier	Balance as at 31st December 2023	Document No.	Description
Donha Sdn Bhd	5,000.00	03	BALANCE B/F
Yahama Berhad	8,000.00	04	BALANCE B/F

Set the starting number for the following documents:

- Payment Voucher start from PV-901
- Receipt Voucher start from OR-101
- Sales Invoice to start from I-001

2. Record the following entries related to customers in January 2024:

Customer	***Document No.***	***Date***	***Description***	***Amount***
Ah Kew Motor Trading	I-001	05 Jan	Sales of item X	9,000.00
John Sdn Bhd	I-002	06 Jan	Sales of item H	5,000.00
John Sdn Bhd	I-003	07 Jan	Sales of item H	10,800.00
Ah Kew Motor Trading	<<New>>	13 Jan	A cheque (WEB 040404) was received to clear the outstanding amount.	27,700.00
John Sdn Bhd	<<New>>	14 Jan	The customer paid on his account. CASH RM 100 Cheque No: **WEE 400400** RM 4,900	5,000.00
John Sdn Bhd	CN-000001	19 Jan	Returned one of spoilt item H (I-002)	110.00
Ah Kew Motor Trading	CN-000002	21 Jan	Returned one of spoilt item X (I-001)	550.00

3. Record the following entries related to suppliers in January 2024:

Supplier	***Document No. / Supplier Doc No.***	***Date***	***Description***	***Amount***
Yahama Berhad	1010	03 Jan	Purchased item H	3,000.00
Yahama Berhad	1019	05 Jan	Purchased item H	1,500.00
Donha Sdn Bhd	5511	06 Jan	Purchased item X	2,100.00
Donha Sdn Bhd	<<New>>	15 Jan	Payment on account. Cheque No: MBB 7001	2,500.00
Yahama Berhad	<<New>>	20 Jan	Payment on account. Cheque No: MBB 7002	5,000.00
Donha Sdn Bhd	CN5511	22 Jan	Return one of item X	1,500.00

4. Record the following cash book entries in January 2024:

Date	*Description*	*Amount*
20 Jan	CASH SALES Credit into **500-1000 Cash Sales** account and received cash.	150.00
26 Jan	Wrap & Co. to purchase Bubble Wrap Payment by Cheque MBB 7003	900.00
30 Jan	Paid net salary. Cheque No: MBB 7004	4,900.00

5. Record the following journal entries in January 2024:

Description	JV No.	Date	Acc. No / Description	Debit	Credit
Staff Claim – Johnson	<<New>>	31 Jan	905-0000 Traveling Expenses	80	
			909-0000 Telephone Charges	50	
			320-0000 Cash in hand		130

6. CN-000002 was wrongly entered, void the entry.

7. The value of stock as of 31 January 2024 is RM5,700.00

8. Prepare the following Bank Reconciliation for January.

MBB Bank				
Account Name: AUTO GARAGE ENTERPRISE Account No.: 012345-67-8910		Statement Date: 31 Jan 2024 Page: 1 of 1		
Date	**Particular**	**Debit**	**Credit**	**Balance**
1 Jan	B/F			67,000.00 cr
16 Jan	Deposit WEE 400400		4,900.00	71,900.00 cr
23 Jan	Deposit WEB 040404		27,700.00	99,600.00 cr
25 Jan	CLR MBB 7004	4,900.00		94,700.00 cr

9. Complete Profit & Loss Statement as of 31 January 2024.

AUTO GARAGE ENTERPRISE + _____

Profit & Loss Statement as of 31st January 2024

	RM	RM
Sales		
Cash Sales		
(-) Sales return		
Less: Cost of Sales		
Opening Stock		
Purchases		
(-) Purchases return		
(-) Closing Stock		
Gross Profit		
Less: Expenses		
Salaries		
Traveling Expenses		
Telephone Charges		
General Expenses		
Net Profit (Loss)		

MARKING RUBRIC:

CRITERIA	POOR (1-2)	FAIR (3-4)	SATISFACTORY (5-6)	GOOD (7-8)	EXCELLENT (9-10)	MARKS	
Preparation (Account Maintenance)	Hardly able to identify and discuss the relevant theories (ill-prepared) in initiating the task	Fairly able to identify and discuss the relevant theories in initiating the task	Averagely able to identify and discuss the relevant theories in initiating the task	Good at identifying and discussing the relevant theories in initiating the task	Excellent at identifying and discussing the relevant theories (well-prepared) in initiating the task		**/ 20**
Application (Opening Balance)	Hardly suitable skill sets used, thus need a lot of improvement	Occasionally suitable skill sets used, thus need quite a lot of improvement	Sometimes suitable skill sets used, thus need moderate improvement	Frequently suitable skill sets used, thus need little improvement	Very frequently suitable skill sets used, thus need very little/no improvement		**/ 20**
	Achieve less than 60% of the required skills needed	Achieve between 60% and 69% of the required skills needed	Achieve between 70% and 79% of the required skills needed	Achieve between 80% and 89% of the required skills needed	Achieve more than 89% of the required skills needed		
Method (Submit Question & Backup)	Poor implementation of task with no flow of steps/workings shown properly	Fair implementation of task with few flows of steps/workings shown properly	Satisfactory task implementation with some flows of steps/workings shown properly	Good implementation of task with more flows of steps/workings shown properly	Excellent task implementation with most flows of steps/workings shown properly		**/ 20**
Progression / Rectification (In class – practical)	Poor quality of the completed task with less than 60% of accuracy of final answers (facts and figures)	Fair quality of the completed task between 60% and 69% of accuracy of final answers (facts and figures)	Satisfactory quality of the completed task between 70% and 79% of accuracy of final answers (facts and figures)	Good quality of the completed task between 80% and 89% of accuracy of final answers (facts and figures)	Excellent quality of the completed task with more than 89% of accuracy of final answers (facts and figures)		**/ 20**
Format / Output (P&L Statement)	Overall results indicate low level of practical skills	Overall results indicate slightly low level of practical skills	Overall results indicate average level of practical skills	Overall results indicate slightly high level of practical skills	Overall results indicate high level of practical skills		**/ 20**
Total Marks (100 / 100 * 12.5%)							**12.5**

Practical Test

JABATAN PERDAGANGAN
POLITEKNIK UNGKU OMAR

DPA20043 COMPUTERIZED ACCOUNTING SYSTEM

PRACTICAL TEST

SEKSYEN KURSUS:

_____

NAMA PENSYARAH KURSUS:

_____

ARAHAN PENILAIAN :

1. Jawab semua soalan dalam masa **2 JAM 30 MINIT.**
2. Jawapan adalah secara individu.
3. Semua dokumen dan jawapan perlu dihantar di post-box Pensyarah dan di platform CIDOS / Google Drive yang disediakan.

NO PENDAFTARAN	NAMA	CLO	MARKAH
		1	
		2	
		3	/ 100
		4	
		JUMLAH	/ 100

INSTRUCTION:

A. Based on information given in **Chapter 10 Assignment 2** (in the Workbook / AutoCount Academy).
B. Complete all instructions in Assignment 2 using **AutoCount software**.
C. Submit all the required documents and answers (hardcopy and softcopy).

COMPANY DETAIL

Company Logo : (Use the AutoCount logo as above)
Company Name : **AUTOCOUNT ENTERPRISE + MATRIX NO.**
Company No. : **PT-022324**
Type : Trading Company
Company Address & Telephone : No. 15 & 16, Jalan Besar
P. O. Box 25, Tanah Rata
39007 Pahang
Tel: 05-498 8180 Fax: 05-498 8181
Currency Code : MYR
Current year : 2024
Previous year : 2023

QUESTION PAPER @ https://bit.ly/DPA20043-CAS-PT01232024

CRITERIA	POOR (1-2)	FAIR (3-4)	SATISFACTORY (5-6)	GOOD (7-8)	EXCELLENT (9-10)	MARKS
Data Collection (Chart of Account)	Poorly use of digital application, thus seeking of descriptions of different data types or scales very rarely appropriate	Fairly use of digital application, thus seeking of descriptions of different data types or scales rarely appropriate	Satisfactorily use of digital application, thus seeking of descriptions of different data types or scales sometimes appropriate	Good use of digital application, thus seeking of descriptions of different data types or scales mostly appropriate	Excellently use of digital application, thus seeking of descriptions of different data types or scales entirely appropriate	**/ 10**
Model Application (Opening Balance)	Failure to recognize, select and apply appropriate model for the situation due to no competency	Able to recognize, select and apply appropriate model for the situation with minimum competency level	Able to recognize, select and apply appropriate model for the situation with the moderate competency level	Able to recognize, select and apply appropriate model for the situation with above average competency level	Able to recognize, select and apply appropriate model for the situation with high competency level	**/ 10**
Data Manipulation (Trial Balance)	Hardly perform data manipulations or organize data into graphic/ numeric/ text forms as per task requirements	Fairly perform data manipulations or organize data into graphic/ numeric/ text forms as per task requirements	Moderately perform data manipulations or organize data into graphic/ numeric/ text forms as per task requirements	Competently perform data manipulations or organize data into graphic/ numeric/ text forms as per task requirements	Expertly perform data manipulations or organize data into graphic/ numeric/ text forms as per task requirements	**/ 20**
Interpretation (Profit & Loss)	Explain the inferences without appropriate context	Explain the inferences within a limited context	Explain the inferences within a suitable context	Explain the meaning of the data and relate it to appropriate context	Explain clearly in own language the meaning of the data and relate it to accurate context	**/ 20**
Problem Solving (Bank Reconciliation)	Never identify and apply appropriate format to solve problems	Occasionally identify and apply appropriate format to solve problems	Sometimes identify and apply appropriate format to solve problems	Frequently identify and apply appropriate format to solve problems	Very frequently identify and apply appropriate format to solve problems	**/ 20**
Output / Result (Softcopy Submission)	Produce poor quality of output with less than 60% of accuracy of final answers (facts and figures)	Produce fair quality of output between 60% and 69% of accuracy of final answers (facts and figures)	Produce satisfactory quality of output between 70% and 79% of accuracy of final answers (facts and figures)	Produce good quality of output between 80% and 89% of accuracy of final answers (facts and figures)	Produce excellent and high quality of output with more than 89% of accuracy of final answers (facts and figures)	**/ 20**

RUBRIC 1: DATA COLLECTION (CHART OF ACCOUNT) (10 MARKS)
(Note: *Print and Submit Complete Chart of Account (PDF)*)

RUBRIC 2: MODEL APPLICATION (OPENING BALANCE) (10 MARKS)
(Note: *Print and Submit Opening Balance (PDF)*)

RUBRIC 3: DATA MANIPULATION (TRIAL BALANCE) (20 MARKS)
(Note: *Print and Submit Trial Balance (PDF)*)

RUBRIC 4: INTERPRETATION (PROFIT & LOSS STATEMENT) (20 MARKS)
(Note: *Print and Submit Profit & Loss Statement (PDF)*)

RUBRIC 5: PROBLEM-SOLVING (BANK RECONCILIATION REPORT) (20 MARKS)
(Note: *Print and Submit Bank Reconciliation Report (PDF)*)

RUBRIC 6: OUTPUT / RESULT (SOFTCOPY SUBMISSION) (20 MARKS)

ITEM NO.	ITEM NAME	FILE TYPE	SUBMIT	MARK
1	BACKUP	**.A06**		**/ 4**
2	TRIAL BALANCE	**PDF**		**/ 4**
3	PROFIT & LOSS ACCOUNT	**PDF**		**/ 4**
4	BALANCE SHEET	**PDF**		**/ 4**
5	BANK RECONCILIATION REPORT	**PDF**		**/ 4**

References

American Accounting Association. *Accounting Information Systems (AIS) Mission Statement*.

American Journal of Industrial and Business Management. *Organizational Structure: Influencing Factors and Impact on a Firm*.

AutoCount Computerized Accounting Course Book; 5th Edition; Petaling Jaya: Auto Count Sdn Bhd.

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Romney, M. B., & Steinbart, P. J. (2018). *Accounting Information Systems*. 14th Edition. USA: Pearson.

Taipalus, Toni. *A Notation for Planning SQL Queries*, Journal of Information Systems Education, vol. 30, no. 3, 2019, pp. 160-166.

Urquhart, C. L. (2010). Putting the 'theory' back into grounded theory. *Guidelines for grounded theory studies in information systems*: Information systems journal, 357-381.

Appendices

Appendix 1 - Installation of Access UBS

How to install Sage UBS (v2022)

For education purpose

1

DOWNLOAD SOFTWARE

https://drive.google.com/file/d/11H4AhxjQf2cGC7AIJQPSryDfU4fnZceF/view?usp=sharing

https://bit.ly/SOFTWARE-ACCESS-UBS

2

INSTALL THE SOFTWARE

ACCESSUBSEDUCATION-v2022.0

Click ACCESSUBSEDUCATION-v2022.0

Click "NEXT"

3

INSTALL THE SOFTWARE (CONT'D)

Accept the Terms...

Click "NEXT"

Select Installation Folder

Click "NEXT"

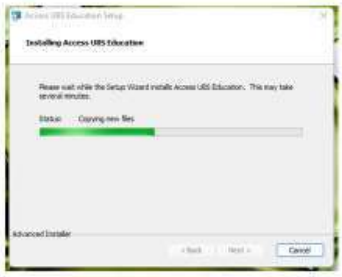
Ready to INSTALL

Click "INSTALL"

4

INSTALL THE SOFTWARE (CONT'D)

Waiting the installation process…



Completing the Access UBS Education Setup Wizard Click "FINISH"

The ICON will appear on the desktop…

5

TEST THE SOFTWARE

Double Click the ICON

Log in the access UBS (enter the password) & click "Sign In"

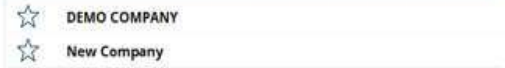
6

TEST THE SOFTWARE (CONT'D)

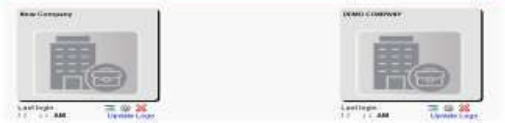
Click "Don't show me this again… and click "OK"

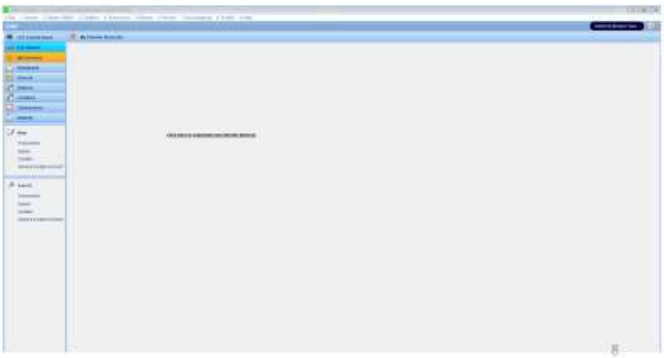
Make sure this…

Modern View

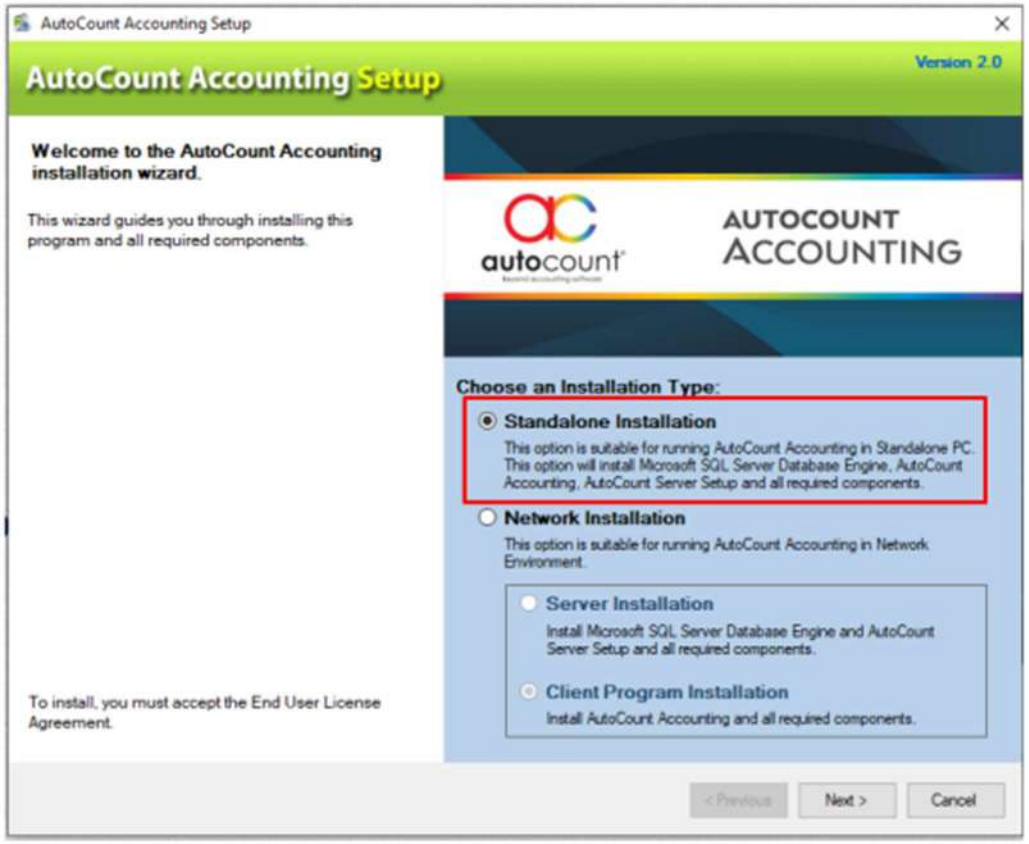


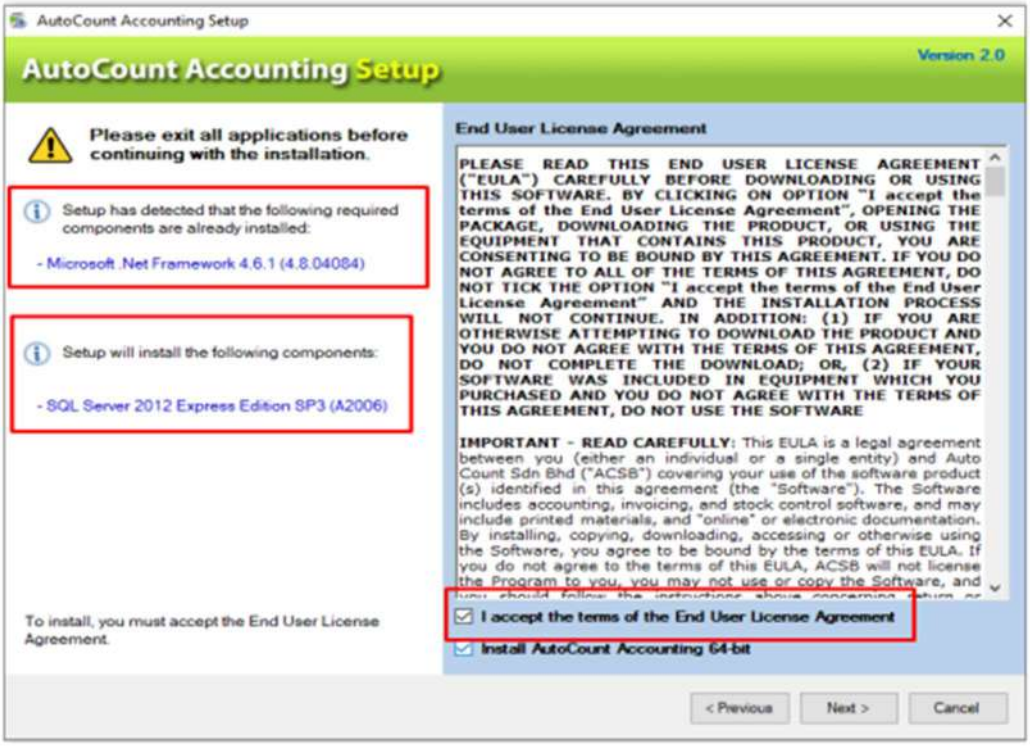
Classic View





Appendix 2 - Installation of AutoCount (Please connect to the internet)





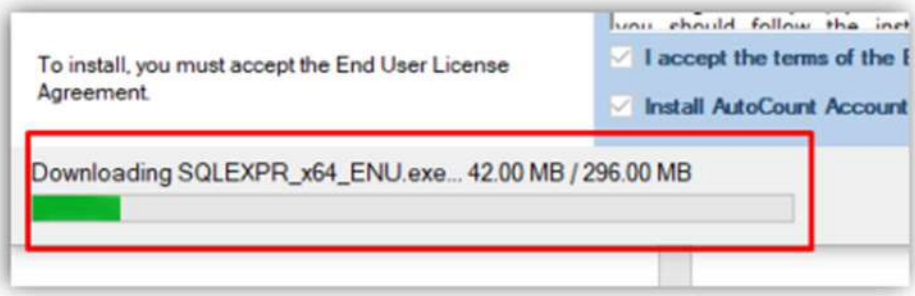
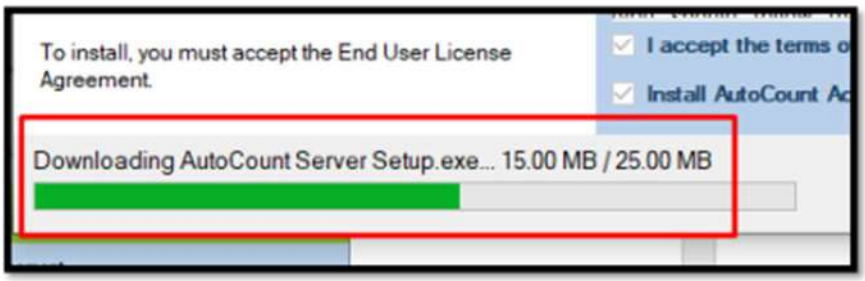
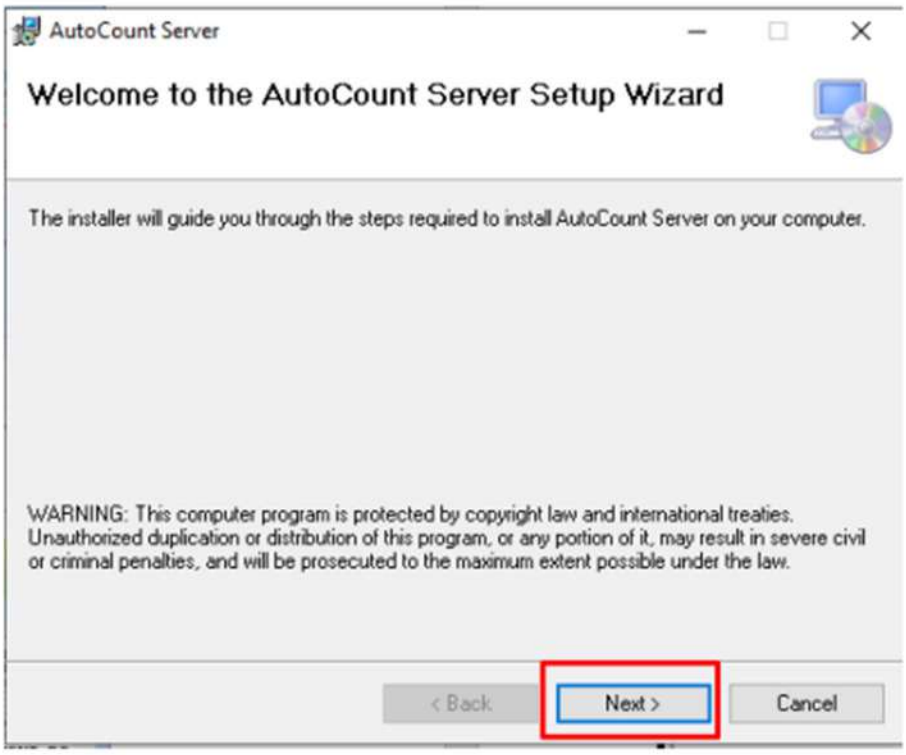
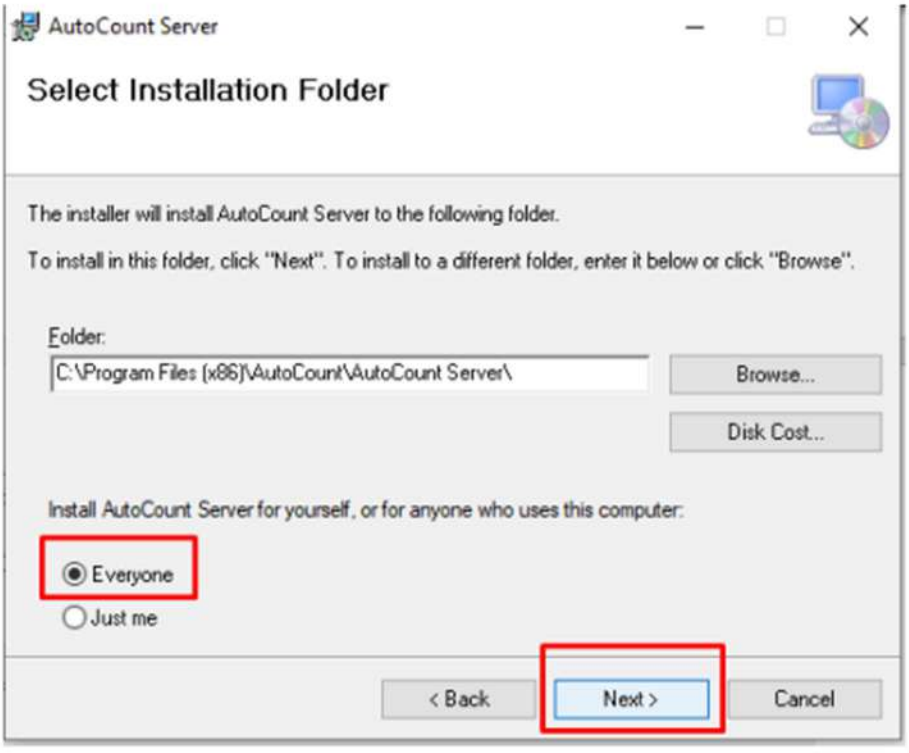
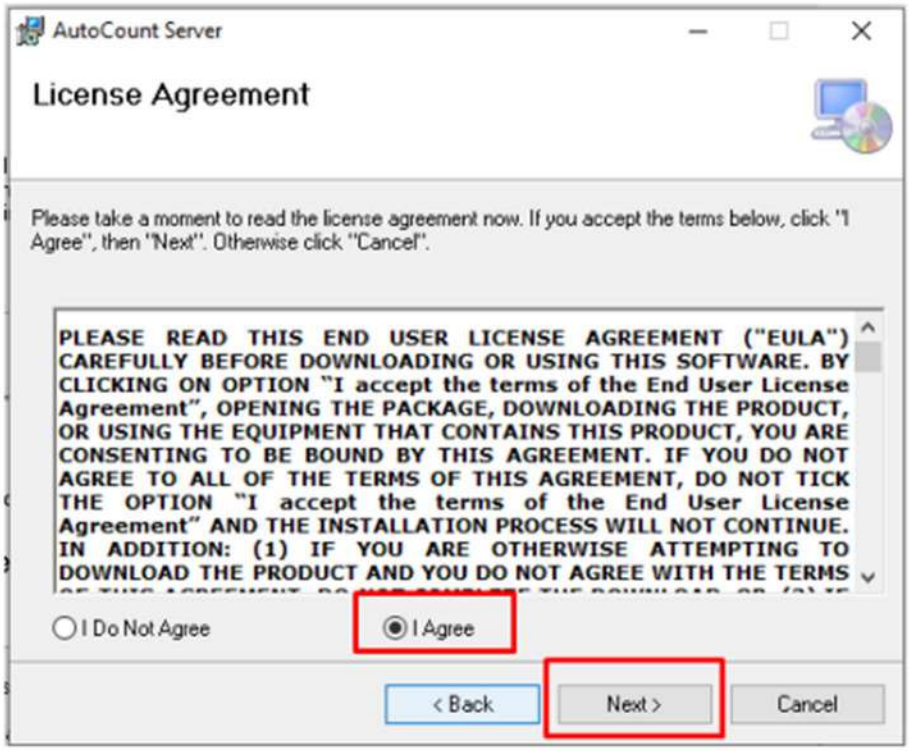


Figure 1 MESTI ADA INTERNET YER ...




AutoCount Server
Welcome to the AutoCount Server Setup Wizard
The installer will guide you through the steps required to install AutoCount Server on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
< Back
Next >
Cancel


AutoCount Server
Select Installation Folder
The installer will install AutoCount Server to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files (x86)\AutoCount\AutoCount Server\
Browse...
Disk Cost...
Install AutoCount Server for yourself, or for anyone who uses this computer:
Everyone
Just me
< Back
Next >
Cancel


AutoCount Server
License Agreement
Please take a moment to read the license agreement now. If you accept the terms below, click "I Agree", then "Next". Otherwise click "Cancel".
PLEASE READ THIS END USER LICENSE AGREEMENT ("EULA") CAREFULLY BEFORE DOWNLOADING OR USING THIS SOFTWARE. BY CLICKING ON OPTION "I accept the terms of the End User License Agreement", OPENING THE PACKAGE, DOWNLOADING THE PRODUCT, OR USING THE EQUIPMENT THAT CONTAINS THIS PRODUCT, YOU ARE CONSENTING TO BE BOUND BY THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS AGREEMENT, DO NOT TICK THE OPTION "I accept the terms of the End User License Agreement" AND THE INSTALLATION PROCESS WILL NOT CONTINUE. IN ADDITION: (1) IF YOU ARE OTHERWISE ATTEMPTING TO DOWNLOAD THE PRODUCT AND YOU DO NOT AGREE WITH THE TERMS
I Do Not Agree
I Agree
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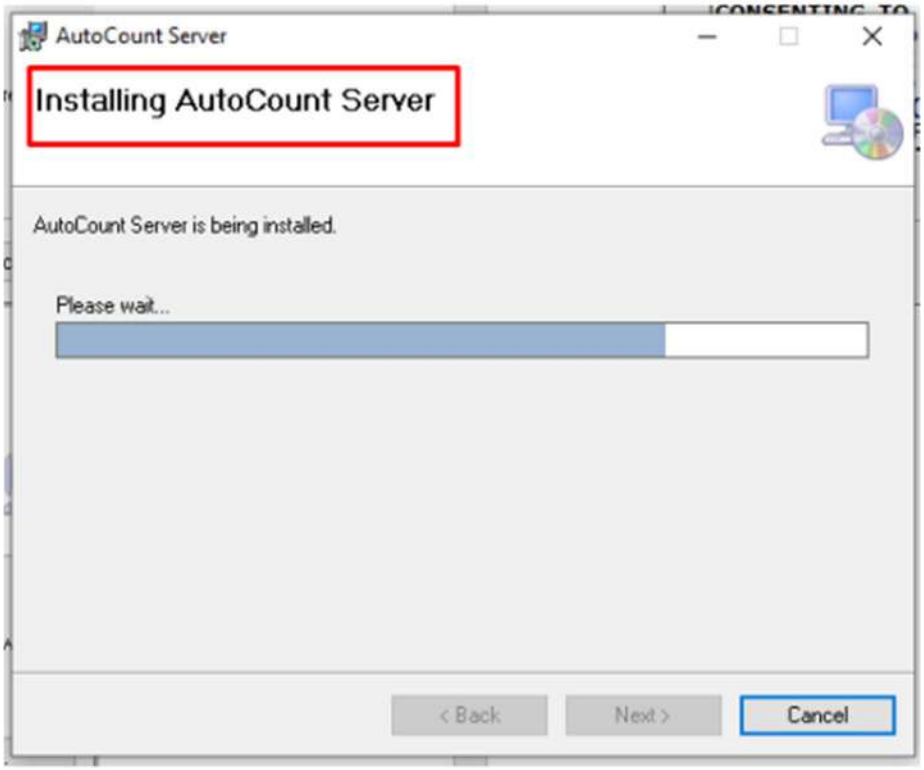
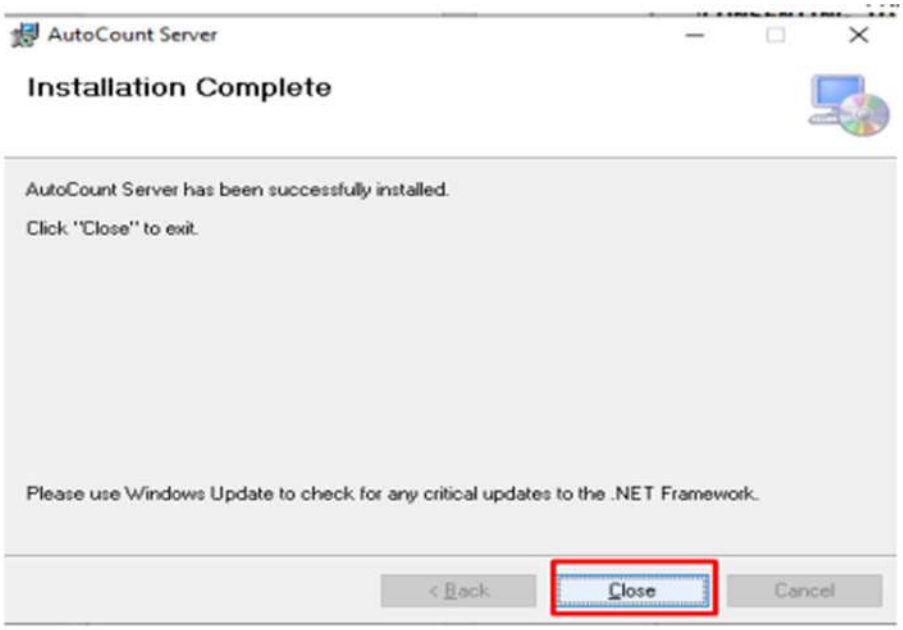
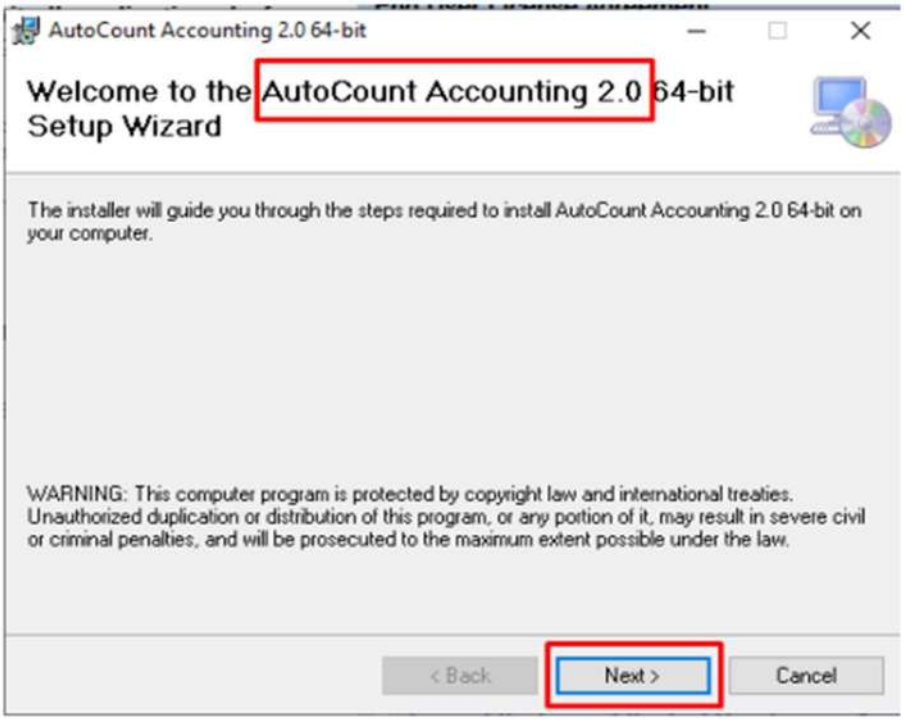
Cancel


AutoCount Server
Installing AutoCount Server
AutoCount Server is being installed.
Please wait...
< Back
Next >
Cancel


AutoCount Server
Installation Complete
AutoCount Server has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
< Back
Close
Cancel

To install, you must accept the End User License Agreement.
I accept the terms of t
Install AutoCount Acc
Downloading AutoCount Acc x64 Setup.exe... 22.00 MB / 133.00 MB


AutoCount Accounting 2.0 64-bit
Welcome to the AutoCount Accounting 2.0 64-bit Setup Wizard
The installer will guide you through the steps required to install AutoCount Accounting 2.0 64-bit on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
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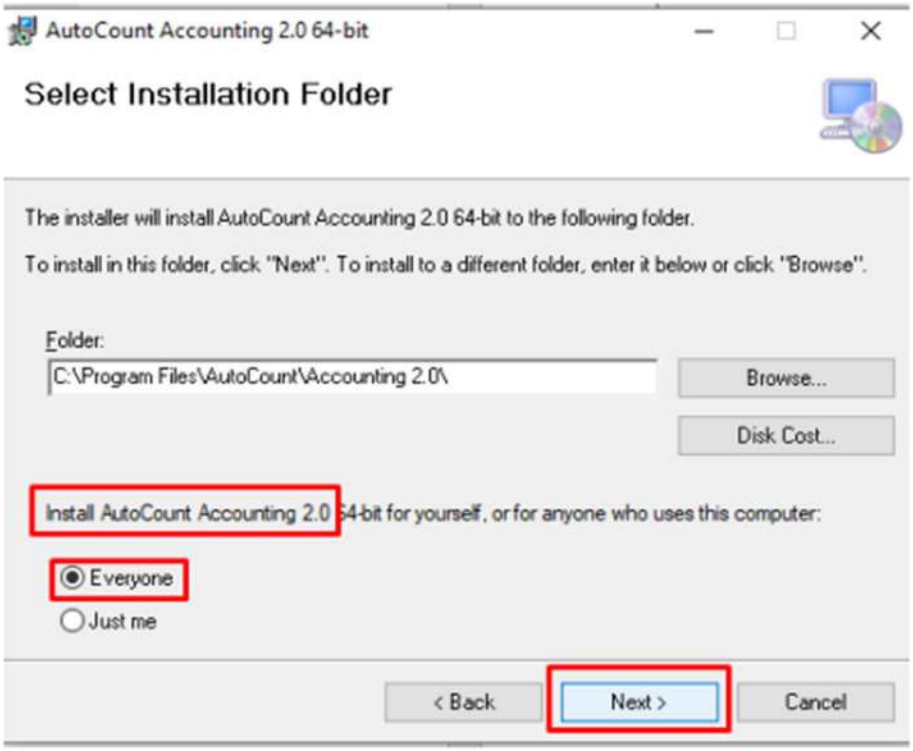
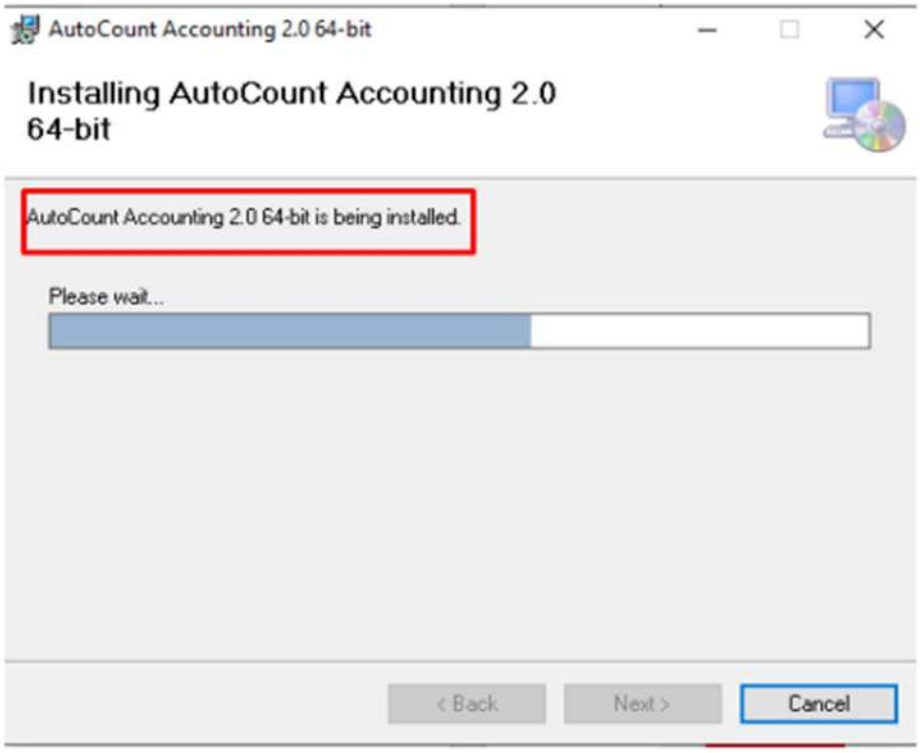
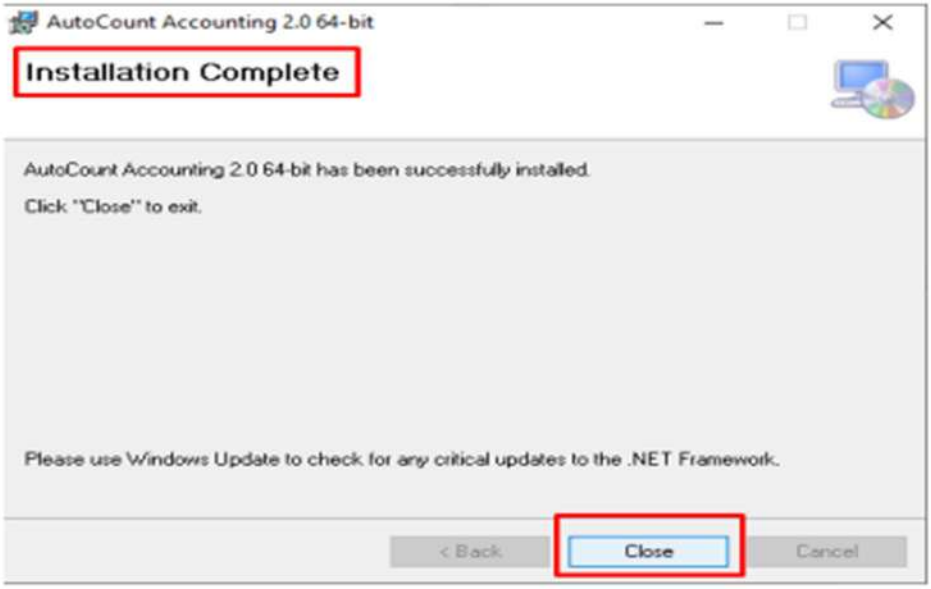
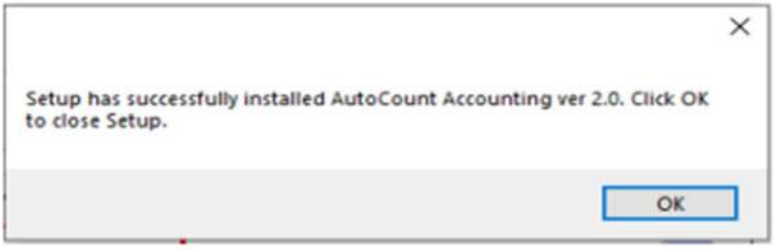
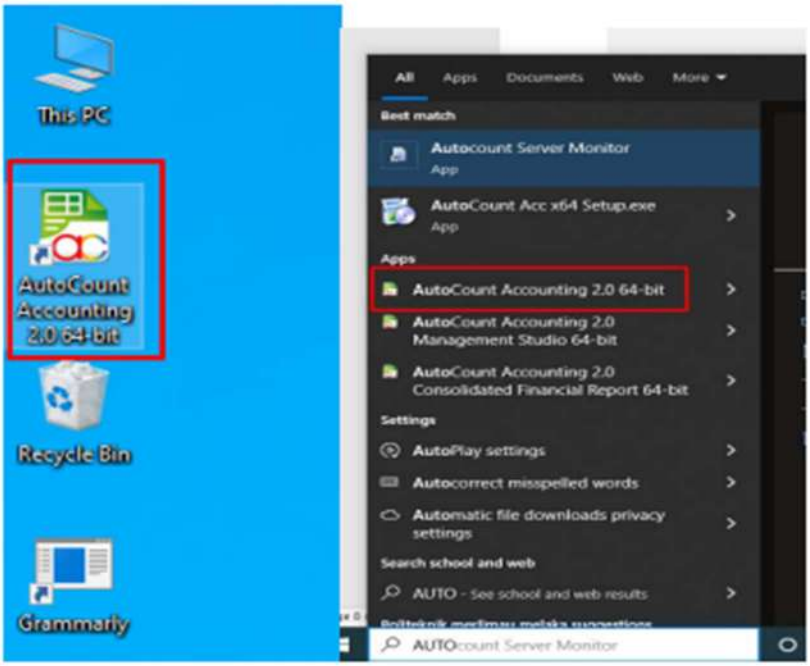
Cancel

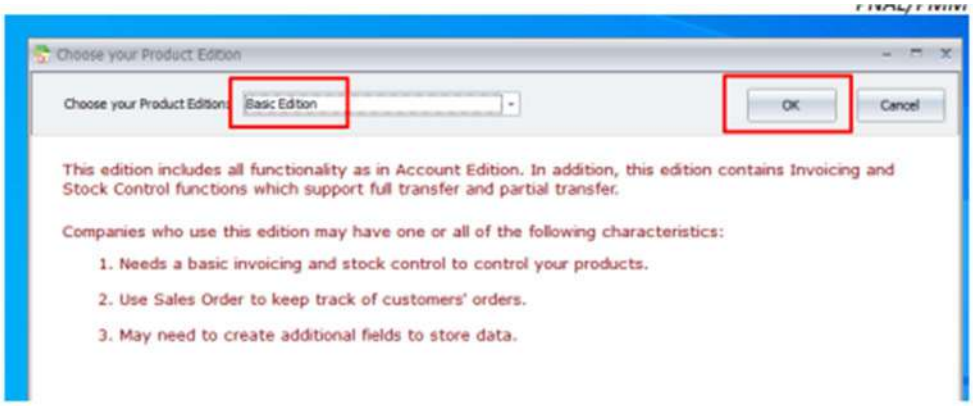

AutoCount Accounting 2.0 64-bit
Select Installation Folder
The installer will install AutoCount Accounting 2.0 64-bit to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\AutoCount\Accounting 2.0\
Browse...
Disk Cost...
Install AutoCount Accounting 2.0 64-bit for yourself, or for anyone who uses this computer:
Everyone
Just me
< Back
Next >
Cancel

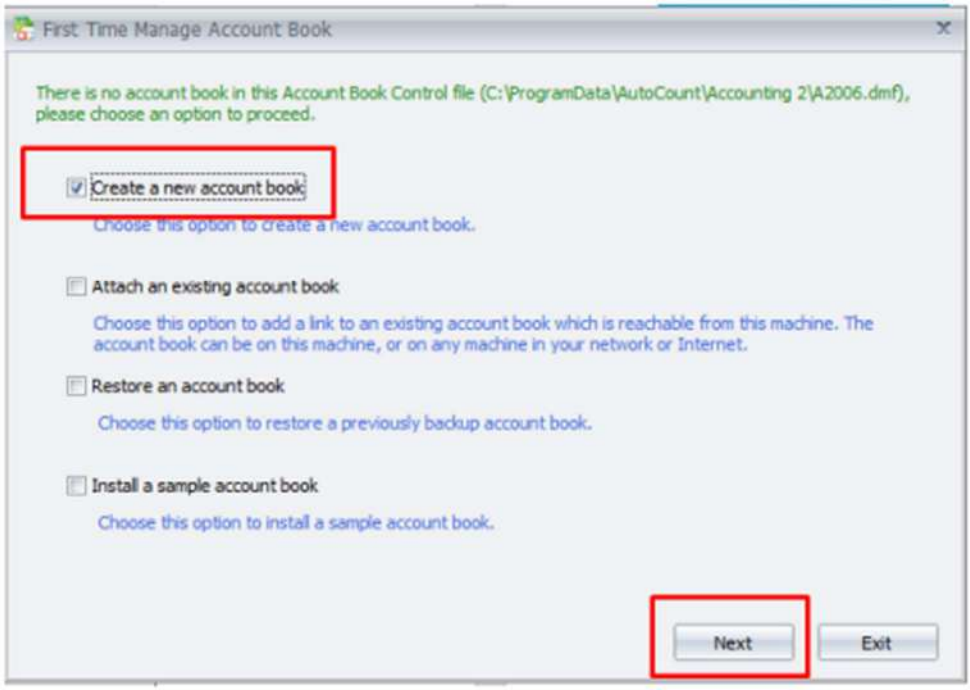

AutoCount Accounting 2.0 64-bit
Installing AutoCount Accounting 2.0 64-bit
AutoCount Accounting 2.0 64-bit is being installed.
Please wait...
< Back
Next >
Cancel

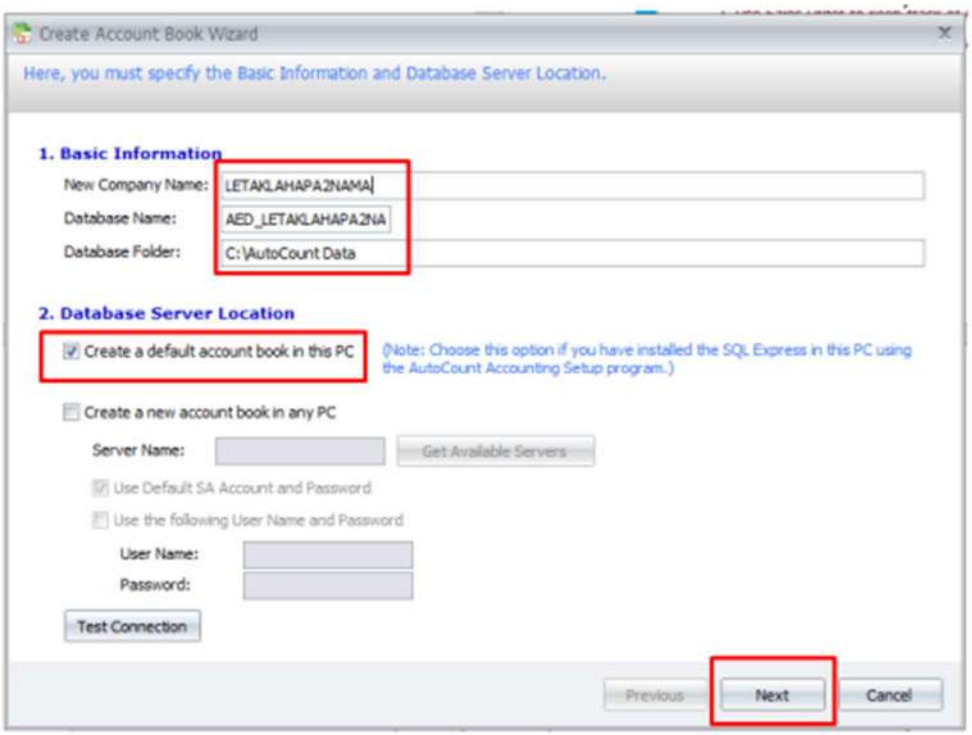

AutoCount Accounting 2.0 64-bit
Installation Complete
AutoCount Accounting 2.0 64-bit has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
< Back
Close
Cancel

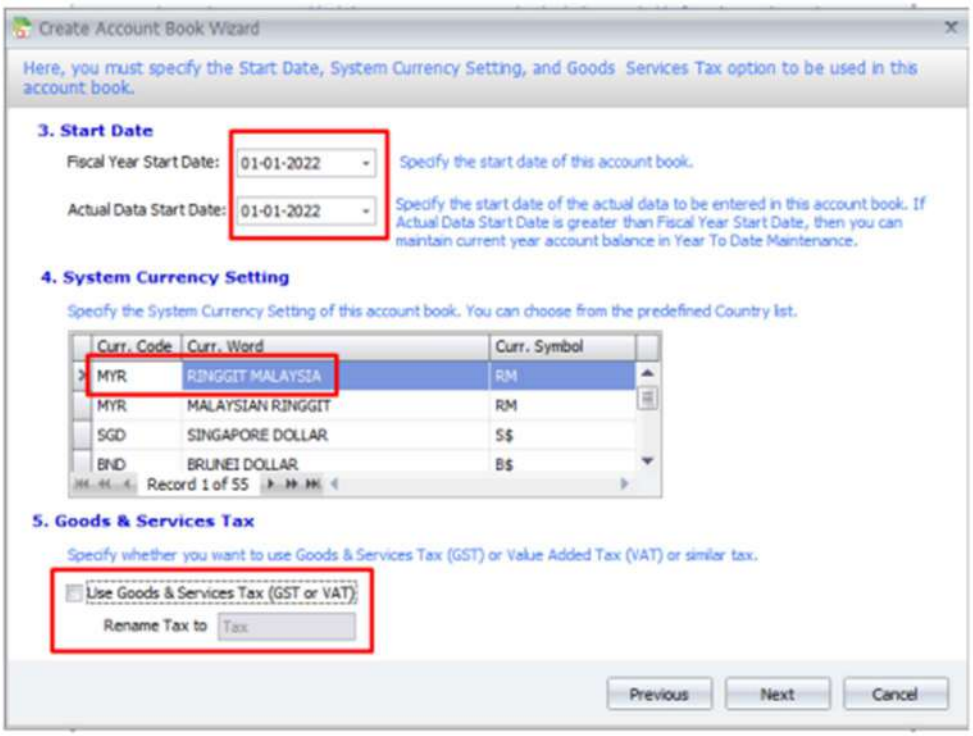

Setup has successfully installed AutoCount Accounting ver 2.0. Click OK to close Setup.
OK

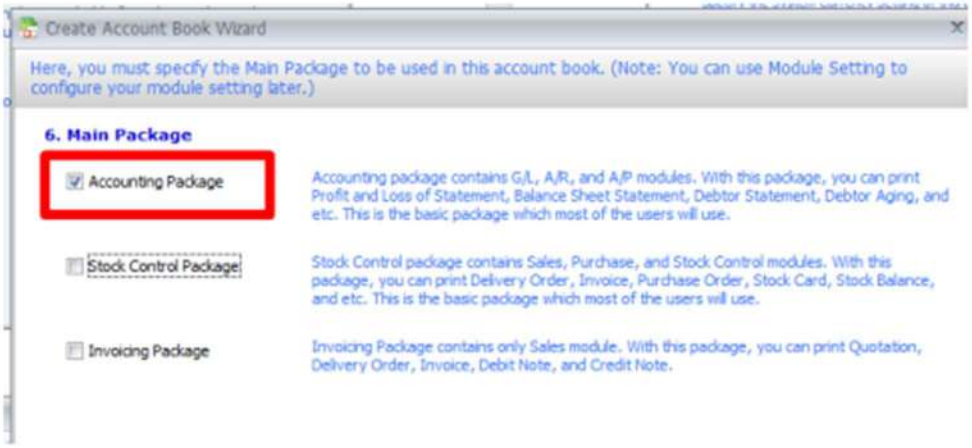

This PC
AutoCount Accounting 2.0 64-bit
Recycle Bin
Grammarly
All
Apps
Documents
Web
More
Best match
Autocount Server Monitor
App
AutoCount Acc x64 Setup.exe
App
Apps
AutoCount Accounting 2.0 64-bit
AutoCount Accounting 2.0 Management Studio 64-bit
AutoCount Accounting 2.0 Consolidated Financial Report 64-bit
Settings
AutoPlay settings
Autocorrect misspelled words
Automatic file downloads privacy settings
Search school and web
AUTO - See school and web results
AUTOcount Server Monitor

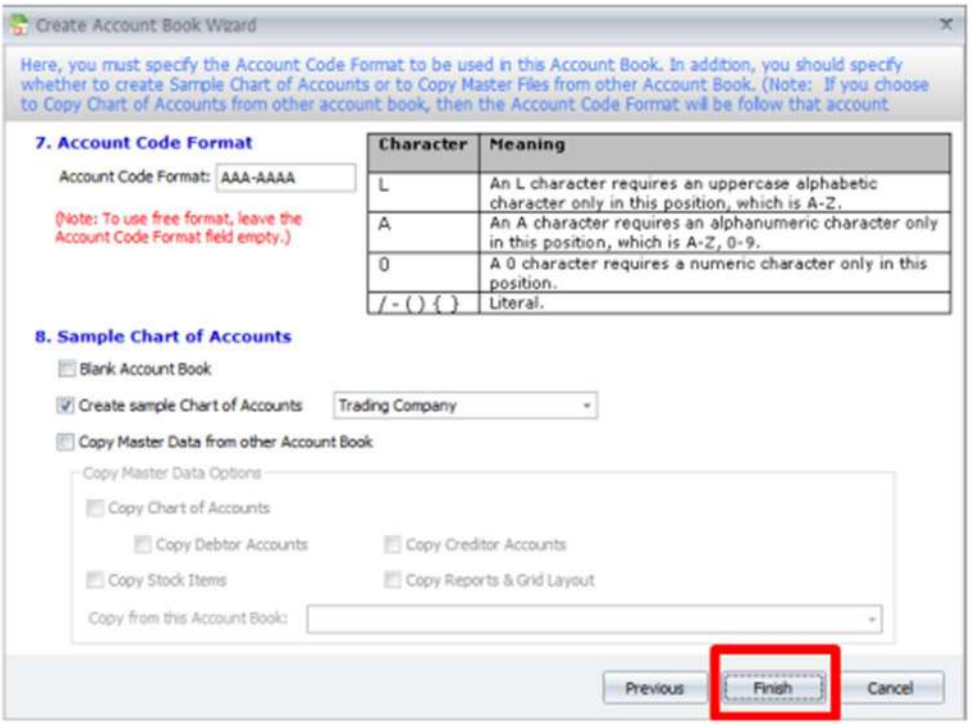

Choose your Product Edition
Choose your Product Edition:
Basic Edition
OK
Cancel
This edition includes all functionality as in Account Edition. In addition, this edition contains Invoicing and Stock Control functions which support full transfer and partial transfer.
Companies who use this edition may have one or all of the following characteristics:
1. Needs a basic invoicing and stock control to control your products.
2. Use Sales Order to keep track of customers' orders.
3. May need to create additional fields to store data.

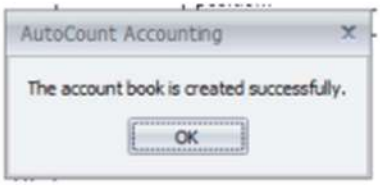

First Time Manage Account Book
There is no account book in this Account Book Control file (C:\ProgramData\AutoCount\Accounting 2\A2006.dmf), please choose an option to proceed.
Create a new account book
Choose this option to create a new account book.
Attach an existing account book
Choose this option to add a link to an existing account book which is reachable from this machine. The account book can be on this machine, or on any machine in your network or Internet.
Restore an account book
Choose this option to restore a previously backup account book.
Install a sample account book
Choose this option to install a sample account book.
Next
Exit

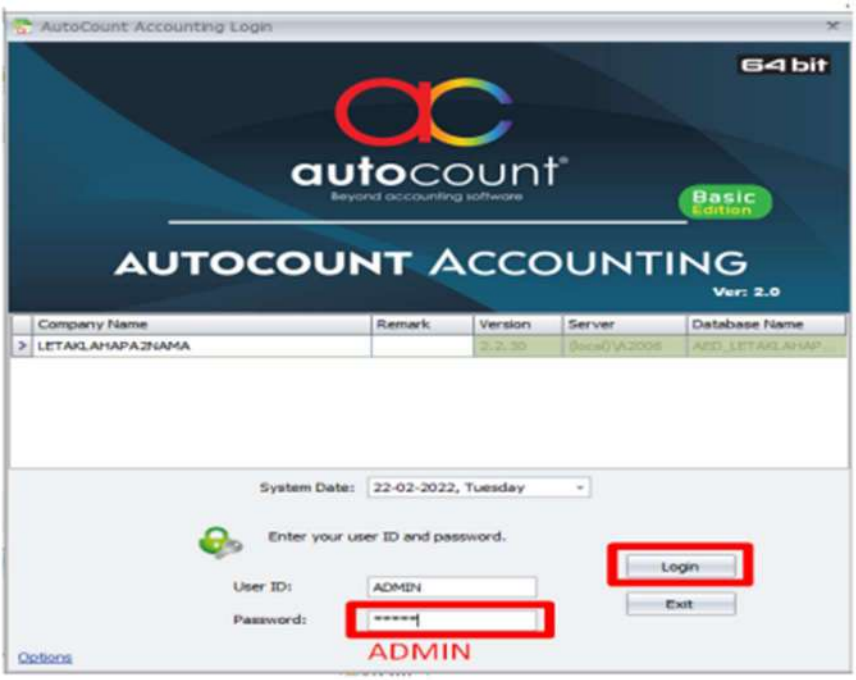

Create Account Book Wizard
Here, you must specify the Basic Information and Database Server Location.
1. Basic Information
New Company Name: LETAKLAHAPA2NAMA
Database Name: AED_LETAKLAHAPA2NA
Database Folder: C:\AutoCount Data
2. Database Server Location
Create a default account book in this PC
(Note: Choose this option if you have installed the SQL Express in this PC using the AutoCount Accounting Setup program.)
Create a new account book in any PC
Server Name:
Get Available Servers
Use Default SA Account and Password
Use the following User Name and Password
User Name:
Password:
Test Connection
Previous
Next
Cancel

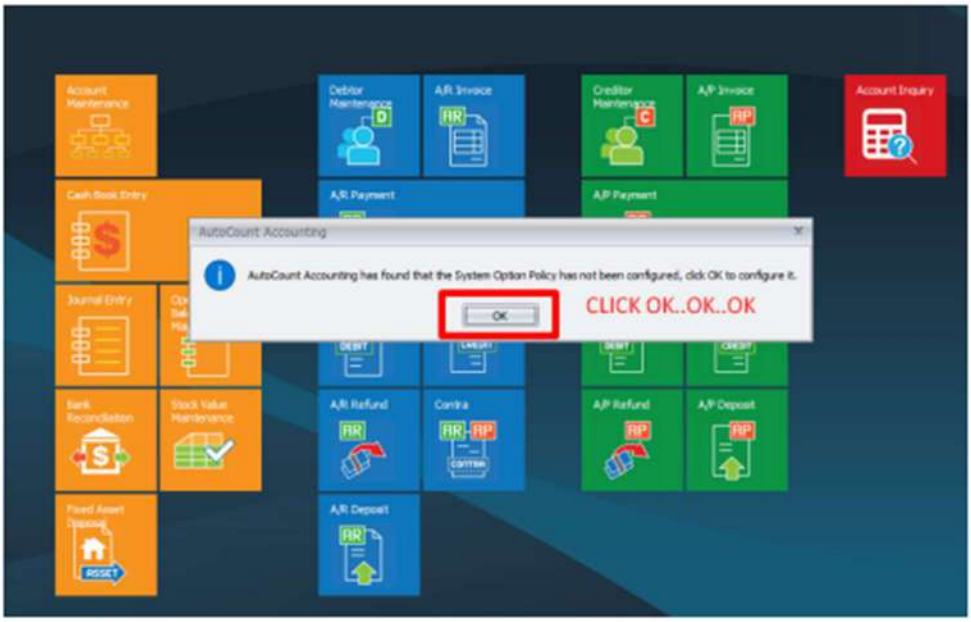

Create Account Book Wizard
Here, you must specify the Start Date, System Currency Setting, and Goods Services Tax option to be used in this account book.
3. Start Date
Fiscal Year Start Date: 01-01-2022
Specify the start date of this account book.
Actual Data Start Date: 01-01-2022
Specify the start date of the actual data to be entered in this account book. If Actual Data Start Date is greater than Fiscal Year Start Date, then you can maintain current year account balance in Year To Date Maintenance.
4. System Currency Setting
Specify the System Currency Setting of this account book. You can choose from the predefined Country list.
Curr. Code
Curr. Word
Curr. Symbol
MYR
RINGGIT MALAYSIA
RM
MYR
MALAYSIAN RINGGIT
RM
SGD
SINGAPORE DOLLAR
S$
BND
BRUNEI DOLLAR
B$
Record 1 of 55
5. Goods & Services Tax
Specify whether you want to use Goods & Services Tax (GST) or Value Added Tax (VAT) or similar tax.
Use Goods & Services Tax (GST or VAT)
Rename Tax to Tax
Previous
Next
Cancel


Create Account Book Wizard
Here, you must specify the Main Package to be used in this account book. (Note: You can use Module Setting to configure your module setting later.)
6. Main Package
Accounting Package
Accounting package contains G/L, A/R, and A/P modules. With this package, you can print Profit and Loss of Statement, Balance Sheet Statement, Debtor Statement, Debtor Aging, and etc. This is the basic package which most of the users will use.
Stock Control Package
Stock Control package contains Sales, Purchase, and Stock Control modules. With this package, you can print Delivery Order, Invoice, Purchase Order, Stock Card, Stock Balance, and etc. This is the basic package which most of the users will use.
Invoicing Package
Invoicing Package contains only Sales module. With this package, you can print Quotation, Delivery Order, Invoice, Debit Note, and Credit Note.


Create Account Book Wizard
Here, you must specify the Account Code Format to be used in this Account Book. In addition, you should specify whether to create Sample Chart of Accounts or to Copy Master Files from other Account Book. (Note: If you choose to Copy Chart of Accounts from other account book, then the Account Code Format will be follow that account
7. Account Code Format
Account Code Format: AAA-AAAA
(Note: To use free format, leave the Account Code Format field empty.)
Character
Meaning
L
An L character requires an uppercase alphabetic character only in this position, which is A-Z.
A
An A character requires an alphanumeric character only in this position, which is A-Z, 0-9.
0
A 0 character requires a numeric character only in this position.
/ - ( ) { }
Literal.
8. Sample Chart of Accounts
Blank Account Book
Create sample Chart of Accounts
Trading Company
Copy Master Data from other Account Book
Copy Master Data Options
Copy Chart of Accounts
Copy Debtor Accounts
Copy Creditor Accounts
Copy Stock Items
Copy Reports & Grid Layout
Copy from this Account Book:
Previous
Finish
Cancel


AutoCount Accounting
The account book is created successfully.
OK


AutoCount Accounting Login
64 bit
autocount
Beyond accounting software
Basic Edition
AUTOCOUNT ACCOUNTING
Ver: 2.0
Company Name
Remark
Version
Server
Database Name
LETAKLAHAPA2NAMA
System Date:
22-02-2022, Tuesday
Enter your user ID and password.
User ID:
ADMIN
Password:
Login
Exit
Options
ADMIN


AutoCount Accounting
AutoCount Accounting has found that the System Option Policy has not been configured, click OK to configure it.
OK
CLICK OK..OK..OK

DONE

COMPUTERIZED ACCOUNTING SYSTEM

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