DESIGNING AND DEVELOPMENT OF ACCOUNTING SYSTEMS

ACC 314

Learning Objectives

At the end of this lecture you should be able to understand the following:

- the planning and analysis phase of designing and developing an accounting information system.
- Identify the role of the accountant in developing an accounting system.

System Development Stages

The system development stages include:

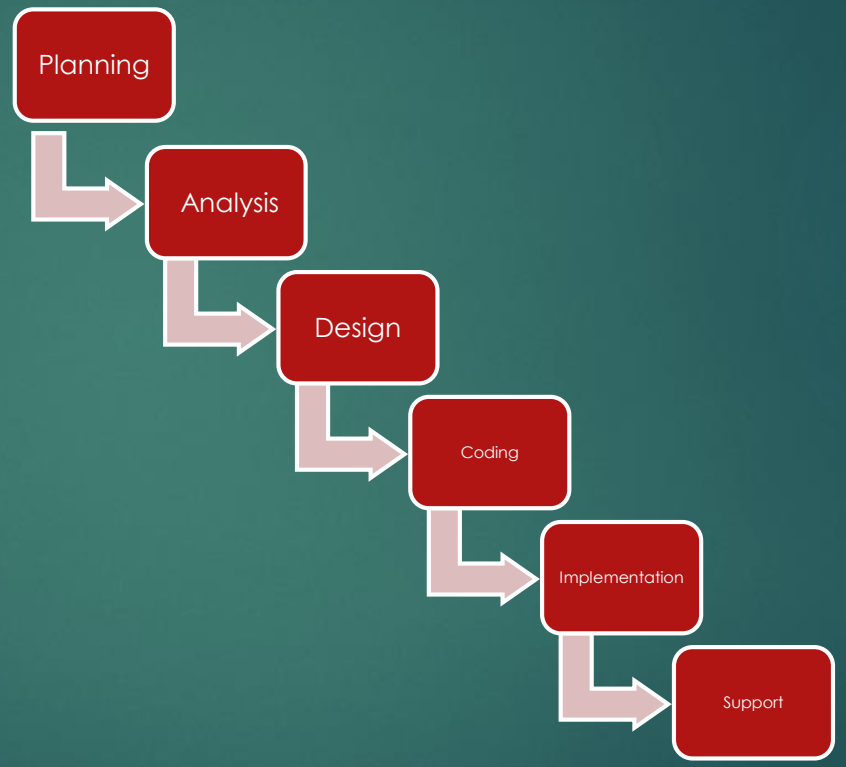
a. Planning/ investigation
b. Analysis
c. Design
d. Coding/ build
e. Implementation/ deploy
f. Post implementation/maintenance/Support

Introduction

- Accounting information systems may be developed in-house while others may be purchased or leased.
- Though the design and development of an AIS majorly requires the skills of IT professionals, accountants are equally involved because the system is designed for accounting functionality.
- The design and development of an AIS is done in phase known as the System Development Life Cycle or System Development Stages.

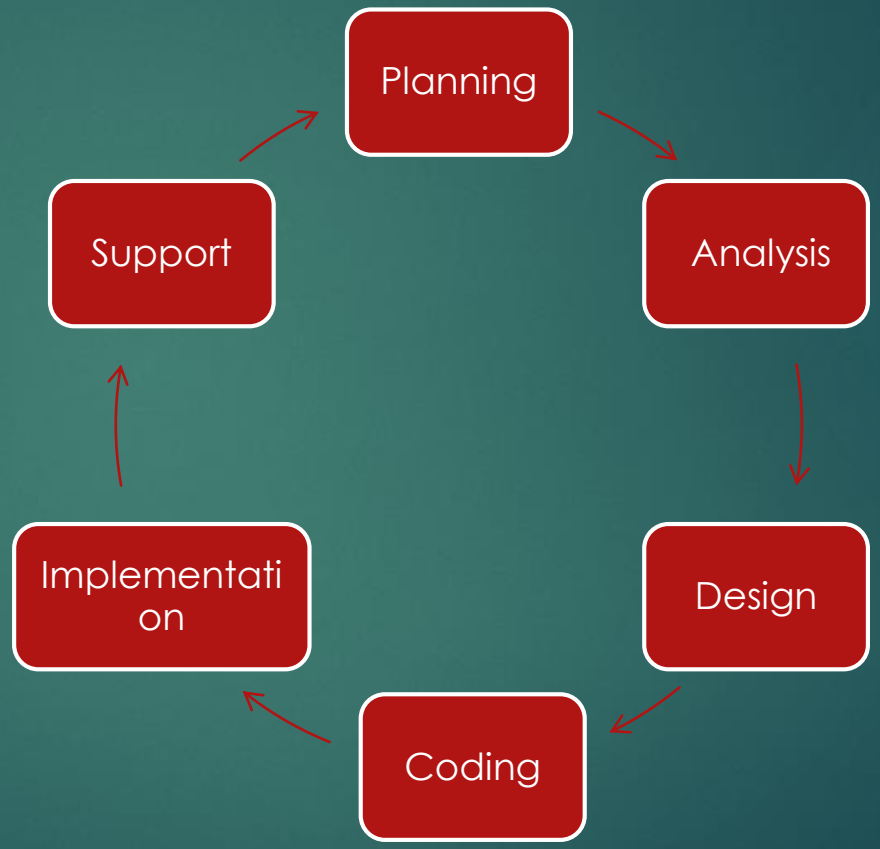
ACCOUNTING SYSTEM DEVELOPMENT PHASES

Old thinking: that each project has a start and finish point



ACCOUNTING SYSTEM DEVELOPMENT PHASES

Contemporary thinking: the phases are in a cycle



Systems **Planning**

- It is also the preliminary investigation phase.
- Initial planning is done to determine the objective and scope of the accounting system to be developed.
- It also involves the definition of project responsibilities, control requirements, project phases, budgets, and final products. This is the purpose for which a feasibility study is done.

Role of the Accountant in the Planning Phase

- The accountants' role is to provide information used to appraise the feasibility of the project and also participate in decision making.

Planning for success

- In planning for the development of an accounting system it is important to plan thoroughly so as to avoid costly mistakes.
- In planning for success, Whitten & Bentley (2007) assert that the following should be in place:
- Broad viewpoint in a systems study
- The Study team and the steering committee
- Investigating current systems

Broad Viewpoint in a Systems Study

- This approach aligns the systems study with the organization's mission and strategic planning goals and objectives.

The Study team and the steering committee

- It is necessary for a team of specialists or experts to be hired to study the system.
- The company's top management are expected to appoint a steering committee to work with each study team.
- The steering committee is comprises top management officials e.g the CEO.

Investigating current systems

- The study team monitors and investigates current systems.
- The study team then prepares a **preliminary investigation report** to the steering committee.

Preliminary Investigation Report

- It usually contains the following:
- The problems or objectives the study team identified.
- Solutions or alternatives investigated
- Courses of action recommended.
- Afterwards, the steering committee may decide to:
- (1) disband the study team and do nothing, (2) perform further preliminary investigations, or (3) proceed to the formal systems analysis stage of the systems study.

Systems Analysis Phase

- It involves:
- Understanding the customer's perspective
- The information needs of the customer
- The use of interviews and surveys
- Identifying the strengths and weaknesses of the existing system
- Determining preliminary hardware and software requirement

Understanding Organizational Goals

- The study team needs to understand the following organizational goals:
- (1) general systems goals,
- (2) top management systems goals,
- (3) operating management systems goals.

General systems goals

- The study team is saddled with the task of ensuring that the current AIS meets general system goals.
- The general systems goals are to be achieved based on the following principles:
- a. awareness that the benefits of the new system should exceed the costs
- b. concern that the output of the system helps managers make better decisions
- c. commitment to designing a system that allows optimal access to information
- d. flexibility so that the system can accommodate changing information needs.

Top management systems goals

- AISs usually provide top managers with long-range budget planning data so they can make effective strategic decisions regarding future product-line.
- Periodic performance reports provide top management with vital control information about corporate operations
- Top management needs to know about the short-range operating performance of its organization's subsystems

Operating management systems goals

- The goals of operating managers are easier to determine than that of top management.
- Much of the information required for operating managers' decisions is generated internally as a by-product of processing a company's accounting data.

Systems Survey

- It is done to obtain a more complete understanding of the company's current operational information system and its environment.
- It accesses the current system's strength and weakness in order to retain the strengths and eliminate the weaknesses.
- It also requires understanding the human element, data gathering, data analysis evaluating feasibility

Understanding the Human Element

- A good system study should ensure the maximum cooperation and support of all employees that are key determinants of the effectiveness of the accounting system.

Data Gathering

- A systems survey requires the study team to gather data about the existing system in the following ways:
- Review existing documentation
- Observe the current system in operation
- Use of questionnaires and surveys
- Review internal control procedures
- Interview system participants

Data Analysis

- The data gathered is to me analyzed using:
- Summary statistics
- Flow charts
- Process maps

- Thereafter a **final systems analysis report** is submitted by the study team to the steering committee for decision making.

Evaluating System Feasibility

- It involves:
- (1) technical feasibility,
- (2) operational feasibility,
- (3) schedule feasibility,
- (4) legal feasibility, and
- (5) economic feasibility.

The Role of the Accountant in the Analysis Phase

- Accountants participate in identifying user information needs, developing the logical and physical models and specifying controls.