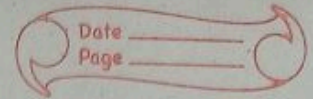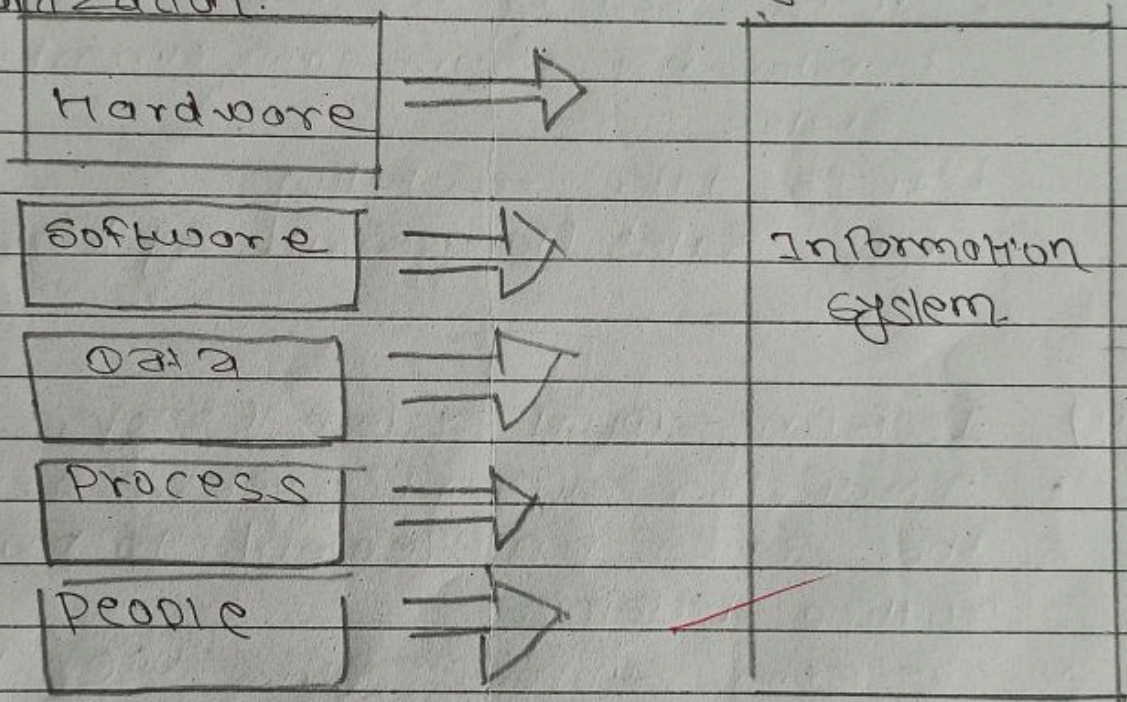Assignment-1

1. What is an Information System? Explain its types.

Ans. Information System is a collection of hardware, software, infrastructure and skilled personnel which are going to do easy planning to make reusable infrastructure, control, coordination between software hardware and decision making in an organization.

Hardware $\Rightarrow$	Information System
Software $\Rightarrow$	
Data $\Rightarrow$	
Process $\Rightarrow$	
People $\Rightarrow$	

The types of Information system are:

(i) Transaction processing system
   - Transaction processing system are used to record day to day business transaction of an organization
   - It is used by the user at the operational management level.
   - It is process orientation.

- Automated handling of data about business activities
- Example: Payroll System, Point of Sales System etc.

(ii) Management Information System
- Management Information System converts the raw data from transaction processing system into meaningful form
- It is used by the tactical manager to monitor the organization current performance status
- It is data orientation
- Eg: Sales Management System.

(r) Decision support system (DSS).
- Decision support system are used by the senior management to make non-routine decision.
- Decision support system use input from the internal system ie transcation processing system, management information system and external system
- Designed to help decesion makers.
- provide interactive environment for decision making
- Eg: Bank Loan Management System.

Executive

Senior
Manager

Middle
Manager

Workers

Executive
Information
System

Decision Support
System

Management Infor-
mation System

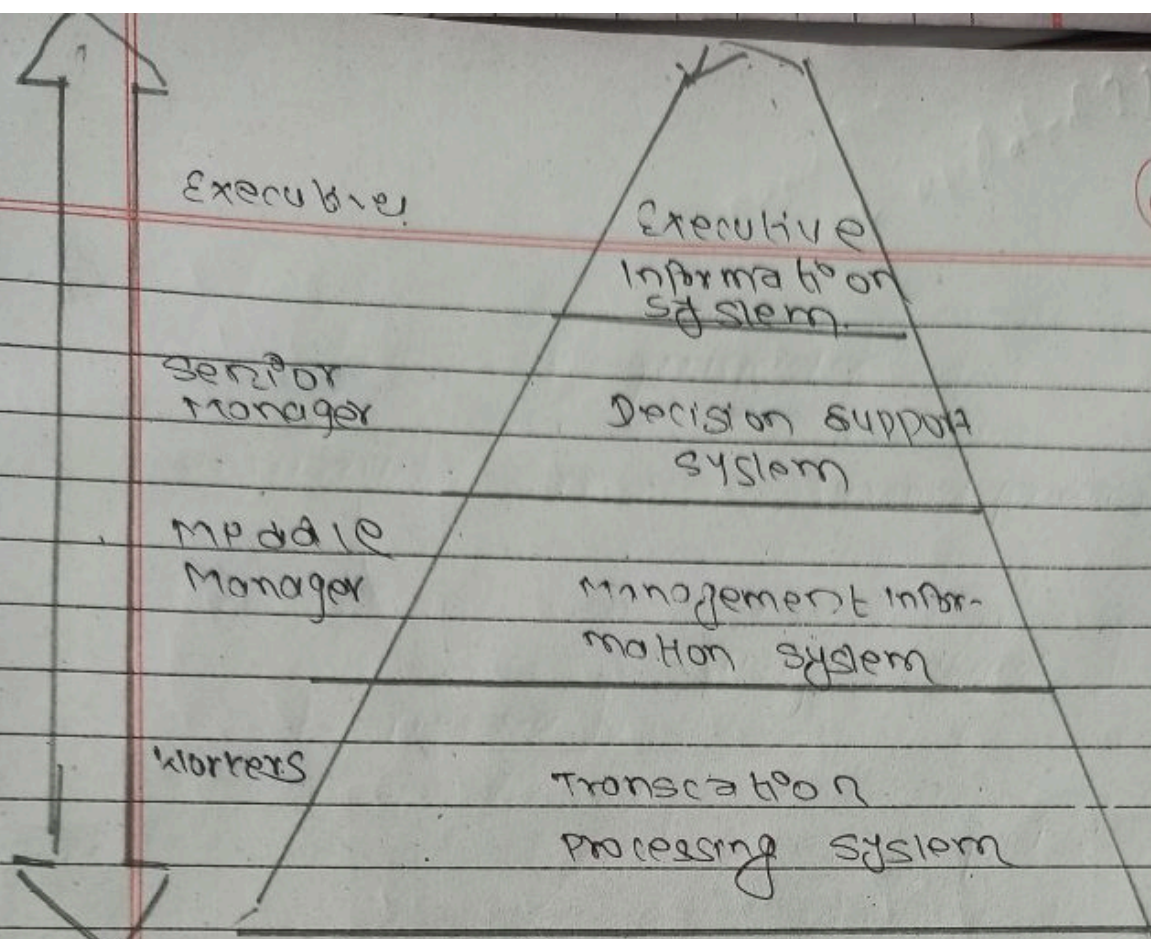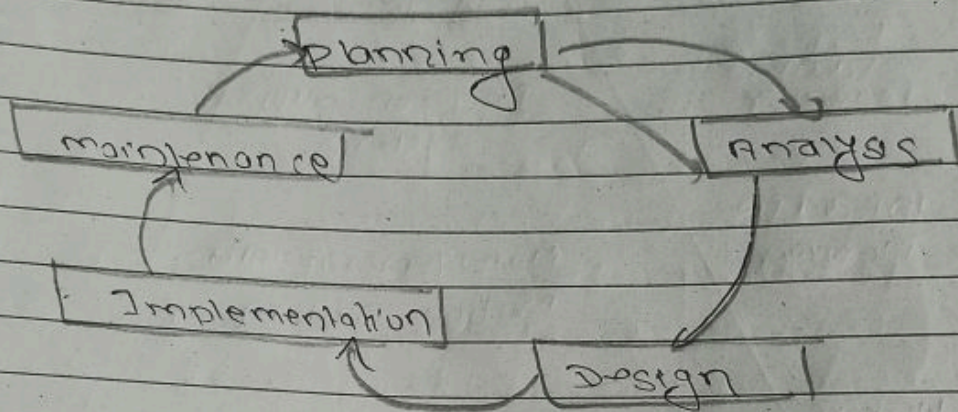Transcation
Processing System

fig: Information system.

2. Explain system Development life cycle in Details.
Ans System Development is the methodology is a standard process followed in an organization to conduct all the necessary steps to analyze, design, implement and maintain information system.

The System Development life cycle include.

(i) Planning
(ii) Analysis
(iii) Design
(iv) Implementation
(v) maintenance.

Planning → Analysis → Design → Implementation → maintenance

∴ Fig SDLC.

Planning: obtain approval for project initiate, Assess feasibuty plan schedule,

⇓

Analysis: understand business need and proceeding need,

⇓

Design: Define Solution system based on requirement and analysis

⇓

Implementation: construct, test, train user, install

⇓

maintenance: keep system healthy and improve.

(1) Planning: An organization tools need total information System are needs are identified, analyzed, prioritized and arrange. The outcome of the project identification and selection process is a determination of which system development project should be undertaken by the organization at least in terms of initial study.

- Major activities during planning are: i) Investigation of the system problem or opportunity.

(ii) presentation of the reason why the system should be developed or system should not be developed.

(iii) Determining the scope of proposed system.

- Identify whether the cost of developing system would give benefit.

(11) Analysis: During this phase the analyst thoughly studies the organization's current procedure and the information system used to perform organizational task.

- Analysis has two sub phases. The First is requirement determination. In this sub-phase analyst works with user to determine that what the user want from a proposed system.

- In the second part of analysis, analyst the analyst determine the requirement and structure them according to their interrelationship and element their redundancies.

(1) **Planning :** An organization has need total information system are needs are identified, analyzed, prioritized and arrange. The outcome of the project identification and selection process is a determination of which system development project should be undertaken by the organization, at least in terms of initial study.

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- Analysis has two sub phases. The first is requirement determination. In this sub phase analyst works with user to determine that what the user want from a proposed system.

- In the second part of analysis, analysis, the analyst determine the requirement and structure them according to their interrelationship and element their redundancies.

(iii) The third phase is Design: During design the analyst convert the description of the recommended alternative solution to the logical and the physical steam, specification.

The analyst must design all aspects of the system from input and output screens to reports, database and computer process. The analyst must then provide the physical specification of the system they have designed, either as a model or a detailed documentation.

• That part of the design process that is independent of any physical or logic specific hardware and software is logical design. Theoretically the system could be implemented on any hardware and software system.

(iv) The fourth phase is implementation. The physical system specification whether in the form of model or documentation are turned over a prog to programmers as the first phase of implementation.

• Implementation includes coding coding testing and installation.

• During coding programmers writy a code that make up the system sometimes the code is generated by the same system used to build the detailed model of the system.

• During testing the programmers and analyst test individual programs and entire system in order to find and correct error.

• During Installation the new system becomes Part of dary activities of an organization

(v)   The Fifth phase is maintanence.
  • When a system is operating in an organization, user sometimes find problem with how it works and often think of better ways to performe its function

  • In maintanence programmers many the changes that user ask for and modify the system these changes are necessary to keep the system running and useful.

3   Explain Agile method with its merits and demerits
  • In simple agile means ' can able to move your body qurchy and easily.
  • In Software development age the term agile is (adopted) means' ability to respond the change' - Changes from Requirement Technology and people.

  • According to Fowler Aglie methodology share three key principle (i) focus on adaptive rather than predrcitive (ii) focus on people rather than roley (3) focus on self adaptive process.

  • Agile method are for every project Fowler (203) recommends an agile or adaptive procey of fair project involy
(1)   unpredictable or dynamic requirements
(11)   Responsible and motivated devlopers

- Customer who understand the process and will get involved.

The merits of Agile methods are:
(i) Flexibility and availability
(ii) high quality
(iii) Reduce Risk
(iv) faster delivery
(v) continous improvement

Demerits of Agile method.
- Uncertain planning
- Lack of documentation
- Expensive
- not suitable for large projects

4. Explain the roles of system analyst in detail.

Ans. System analyst plan, develop and maintain Information system.
- Managy the IT projects, Including task, resources, schedule and cost.
- Conducts meetings delivery presentation writing report and documentation.

Roles of system analyst are:
(i) Defining IT requirements of organization
(ii) Gathering Data/facts
(iii) Analyzing the problem

(iv) Problem solving
(v) Designing system
(vi) Evaluating system.

5. Discuss the waterfall model with its merits and demerits:
- Treat each phase as complete unto itself, never to be revisited once finished.
- Feedback come to be ignored in implementation.
- Traditionally one field ended and another start begon.
- Limited user involvement.
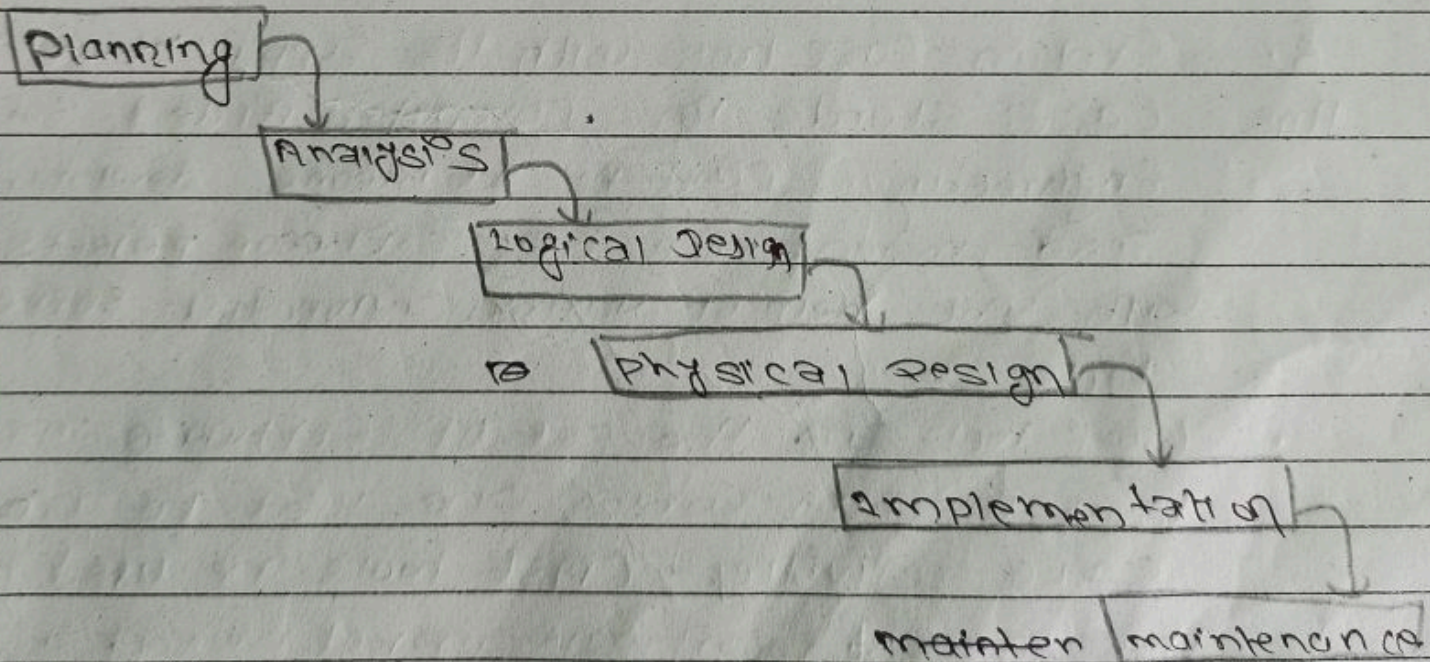- System requirement "locked in" after being determined.

Planning

Analysis

Logical Design

Physical Design

Implementation

maintenance

Fig: Traditional waterfall model.

The merits of waterfall model are-

(i) Simple and easy to understand.

(ii) Simple to use.

(iii) useful for small project.

(iv) Clearly defined stages

(v) phases are completed and proceesed one at a time.

(vi) process and result are well documented.

Disadvantages

(i) Risk and uncertainty

(ii) poor model for long and ongoing project

(iii) It is difficult to measure the progress within a stage

(iv) cannot accomodate changing requirement

6. Explain CASE tools with its application.

Ans. CASE: stands for computer Aided software engineering. CASE It means developing and maintenance of software projects with the help of various automated software tools

• CASE tools are the set of software application program which are used to automate SDLC activities. CASE tools are used by the analyst, software project manager and engineers to develop software system.