Ans ab a

System Development life cycle (SDLC) is a conceptual model which includes policies and procedures for developing or altering systems throughout their life cycles.
An effective SDLC should result in a high quality system that meets customer expectations, reaches completion within time and cost evaluations, and works effectively and efficiently in the current and planned information Technology infrastructure.

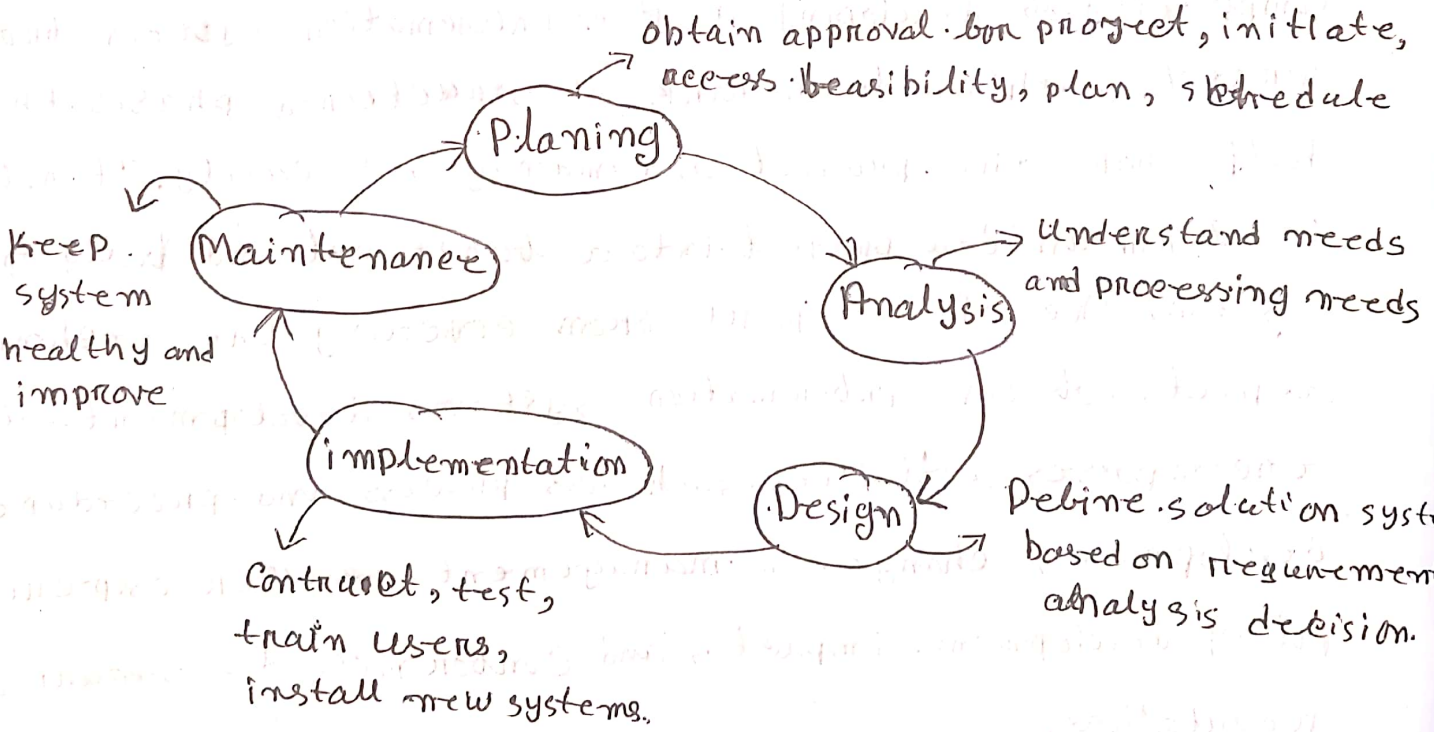
The system development life cycle helps alleviate the complexity of developing a system information system from scratch, within a framework of structured phases that help shape the project and manage it easily. It helps transform an idea project into a functional and fully operational system. The SDLC, apart from covering the technical aspects of an information system's development, also encompasses activities such as process and procedure development, change in management, user experience, policy development, impact, and conformity to security regulations.

Another important reason for leveraging a system development life cycle is to plan ahead of time and analyze the structured phases and goals of a specific software system project. Goal-oriented processes don't

bellow a one-size-bits-all methodology. Instead, they adapt and are responsive to user needs, which is why it is important to have a well-defined plan to determine costs and stabbing decisions, provide goals and deliverables, measure performace, and apply validation points at each phase of the life cycle to improve quality.

Ans of b

System Development Life Cycle (SDLC):



1) Planning: This ~~circle~~ crucial phase sets the tone. overall success of the project, which is why it is during this phase that thorough research is performed to determine resource, budget, personnel, technical aspects, and more.

(a) Identify problems
(b) Identify opportunity.
(c) Identify objective.

Feasibility study: 5 major dimensions:

a) Technical feasibility:
   (i) Concerned with technology to be used in the system
   (ii) Access whether technology to be used in the system is available or not
   (iii) Lack of technical feasibility.

(b) Operational feasibility:-
   (i) Measure of "How well the proposed solution will work in the organization"
   (ii) How internal and external customers will react to it

(c) Schedule feasibility:-
   (i) Whether the system can be completed on time
   (ii) Problem of going over schedule.

(d) Legal feasibility:
   (i) Concerned with Legal issues
   (ii) Conflict ~~with~~ between proposed system and legal requirement.

(e) Economical feasibility:-

(i) System's costs and benefits.

(ii) Tangible and Intangible benefits.

(iii) Cost-effectiveness analysis.

(iv) Cost-benefit analysis report.

(v) Calculate ROI, BEP, NPV.

2) Analysis:- The purpose of this phase is to understand the business and processing needs of the information system. project. Here, the development team considers the functional requirements of the system to assess how the solution will meet the end user's expectations.

(a) Data flow diagrams

(b) Document procedure logic for data flow diagram processes.

(c) Data dictionary

(d) Prepare and present a system proposal

(e) Recommend optimal solution

3) Design: The system design is produced in detail to ensure the system will include the necessary features to meet all functional and operational aspects of the project.

(a) Design user interface

(b) Design system control

(c) Produce program specification

(d) Produce decision trees or tables.

(4) Implementation :- In essence, during this phase, the project is released to be used and/or install by end users.

(a) Coding and testing

(b) Design security measures

(c) Plan conversion

(d) Install system

(e) Review and evaluate system

(5) Maintenance :- In this final phase, end users can fine-tune the system as necessary to increase performance, add new features and capabilities, or meet new requirements brought to the table by the client.

(a) Test and debug computer programs

(b) Test computer system

(c) Develop system.