

# **MODULE -1**

## **Q1. What is software? What is software engineering?**

**Answer :** Software, a set of instructions that tell a computer what to do. Software comprises the entire set of programs, procedures, and routines associated with the operation of a computer system.

Software engineering is a technique through which we can developed or created software for compiler system and any other electronic devices

In other words, software engineering is a process in which user needs are analyzed and software is designed based on these needs

In software engineering the development of software using well define scientific principle, method and procedures.

## **Q2. Explain types of software.**

**Answer :**

Types of software :

### **1. System software**

The programs directly related to the computer hardware and perform tasks associated with controlling and utilizing computer hardware.

### **2. Application software**

An application is a job or task a user wants to accomplish through a computer.

Application software are programs that help a user perform a specific job.

Application software is a type of computer program that performs a specific personal, educational, and business function. Each application is designed to assist end – users in accomplishing a variety of tasks, which may be related to productivity, creativity, or communication.

### **Q3. What is SDLC? Explain each phase of SDLC.**

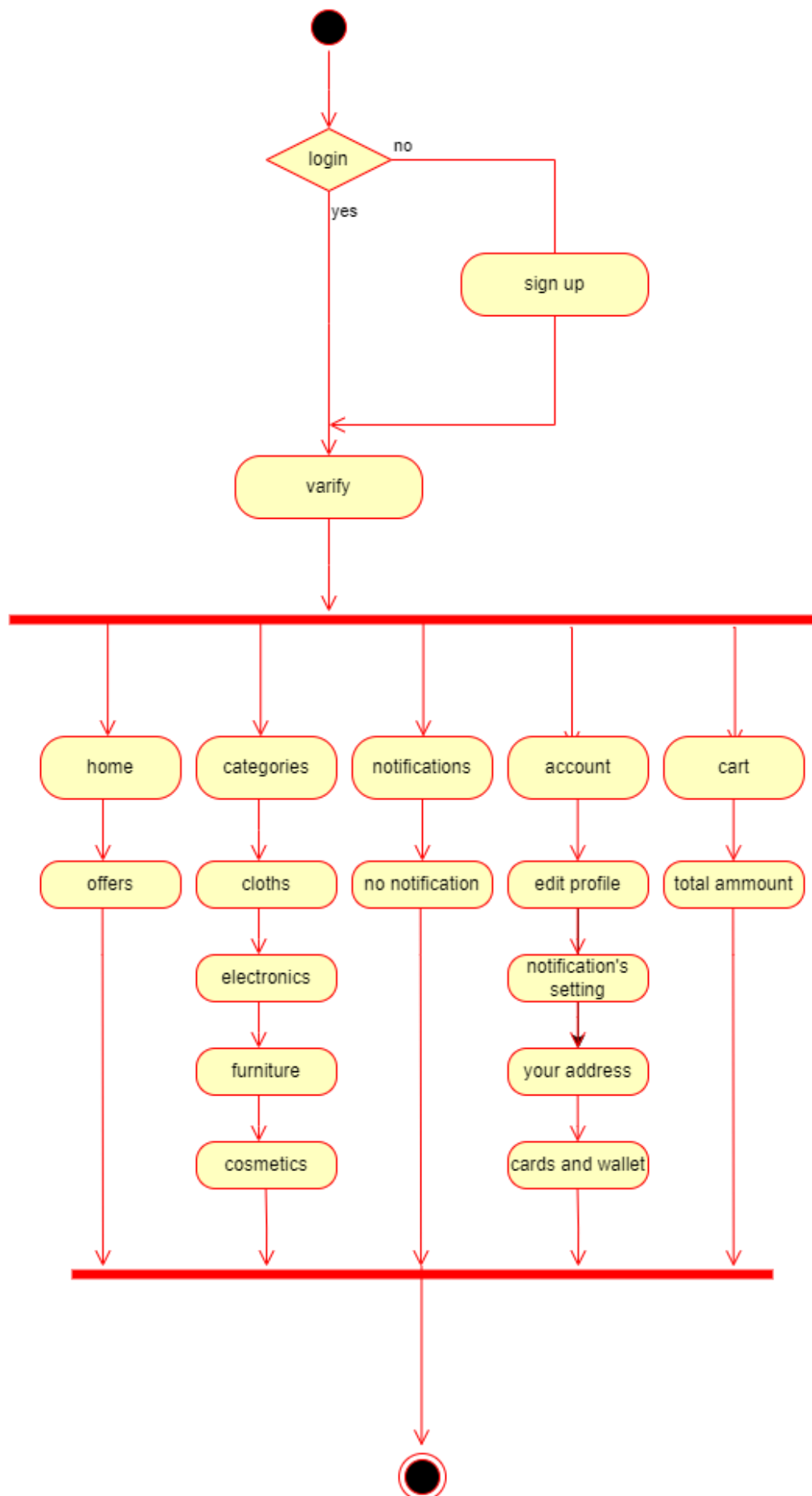
**Answer :** The software development life cycle ( SDLC ) refers to a methodology with clearly defined processes for creating high quality software. in detail, the SDLC methodology focus on the following phases of software development

1. requirement gathering and analysis in SDLC is a vital step in the software development process. It involves understanding the client's need and identifying their problems. It also involves designing solutions. The phase is important to ensure
2. The analysis phase also gathers business requirements and identifies any potential risks. This step in SDLC also includes a feasibility study, which defines all fortes and week points of the project to assess the overall project viability.
3. The design phase of the software development life cycle ( SDLC ) is a critical step in developing the conceptual blueprint of a software project. This phase involves transforming the software requirements gathered during the requirements analysis phase into a structured design document.
4. Implementation includes user notification, user training, installation of hardware, installation of software onto production computers, and integration of the system into daily work processes.
5. The testing phase of the software development lifecycle ( SDLC ) is where you focus on investigation and discovery. During the testing phase, developers find out whether their code and programming work according to customer requirements.

6. The maintenance phase can include activities such as bug fixing, performance improvement, security enhancement, feature addition, or user feedback integration.

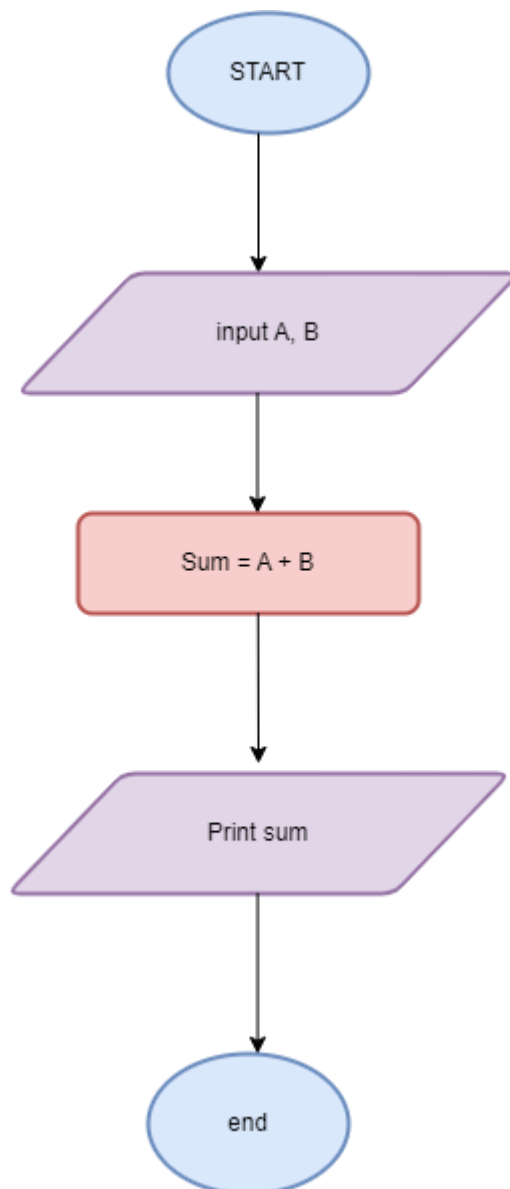
#### **Q4. What is DFD? Create a DFD diagram on Flipkart**

**Answer :** DFD graphically representing the functions, or processes, which capture, manipulate, store, and distribute data between a system and its environment and between components of a system. The visual representation makes it a good communication tool between User and System designer.



### Q5. What is Flow chart? Create a flowchart to make addition of two numbers

**Answer :** A simple flowchart representing a process for dealing with a non-functioning lamp. A flowchart is a type of diagram that represents a workflow or process. A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task.



**Q6. What is Use case Diagram? Create a use-case on bill payment on paytm**

**Answer :** A use case diagram is a graphical depiction of a user's possible interactions with a system. A use case diagram shows various use cases and different types of users the system has and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses. The actors are often shown as stick figures.







