MODULE: 1 (SDLC)

* What is software? What is software engineering?

Software is considered to be collection of executable programming code, associated libraries and documentations. Software, when made for a specific requirement is called software product. Engineering on the other hand, is all about developing products, using well-defined, scientific principles and methods.

* Explain types of software

The two main categories of software are application software and system software. An application is software that fulfills a specific need or performs tasks. System software is designed to run a computer's hardware and provides a platform for applications to run on top of.

* What is SDLC? Explain each phase of SDLC

Purpose of SDLC is to deliver a high-quality product which is as per the customer's requirement. SDLC has defined its phases as, Requirement gathering, Designing, Coding, Testing, and Maintenance. It is important to adhere to the phases to provide the Product in a systematic manner.

* What is DFD? Create a DFD diagram on Flipkart

**DFD** is the abbreviation for **Data Flow Diagram**. The flow of data of a system or a process is represented by DFD. It also gives insight into the inputs and outputs of each entity and the process itself. DFD does not have control flow and no loops or decision rules are present. Specific operations depending on the type of data can be explained by a flowchart.

It is a graphical tool, useful for communicating with users ,managers and other personnel. it is useful for analyzing existing as well as proposed system.

It provides an overview of

* What data is system processes.
* What transformation are performed.
* What data are stored.
* What results are produced , etc.

Data Flow Diagram can be represented in several ways. The DFD belongs to structured-analysis modeling tools. Data Flow diagrams are very popular because they help us to visualize the major steps and data involved in software-system processes.

* What is Flow chart? Create a flowchart to make addition of two numbers

**The three most commonly used types of flowcharts include:**

* Process Flowchart.
* Data Flowchart.
* Business Process Modeling Diagram

The flowchart constitutes a diagram that depicts a system, an algorithm of the computer, or any process. There are numerous lines and standard symbols in each chart, including ovals, rectangles, diamonds, etc. All of them have the function of indicating the process's procedures, decisions, and inputs.

A flowchart is a picture of the separate steps of a process in sequential order. It is a generic tool that can be adapted for a wide variety of purposes, and can be used to describe various processes, such as a manufacturing process, an administrative or service process, or a project plan.

* What is Use case Diagram?

Use-case diagrams describe the high-level functions and scope of a system. These diagrams also identify the interactions between the system and its actors. The use cases and actors in use-case diagrams describe what the system does and how the actors use it, but not how the system operates internally.