

MODULE: 1 (SDLC)

1. What is software? What is software engineering?

Software is set of program and set of instruction that tell to computer exactly what to do

Software engineering is a discipline and the systematic design, development, testing, and maintenance of software than about applying engineering principles to building software to ensure that software is reliable, efficient and meets user needs.

Software engineering is the art of developing quality software on time and within budget

2. Explain type of software

1.System Software: provides the basic functions for computer usage and helps to run the computer hardware and system. the system software used by the computer to translate inputs from sources into a language which a machine can understand coordinates the different hardware components of a computer

Ex. Linux, window, macOS, Android, iOS

2.Application software: the general designation of computer programs for performing user tasks

type of application s/w

- 1.mobile app: use to Application that run on mobile
2. Desktop app: That run stand-alone in a desktop or laptop computer.
3. Web app: That run on a web browser

3. Programming software:

the process of designing, writing, testing, debugging, and maintaining the source code of computer programs. the software in a programming language. the purpose of programming is to create a program that exhibits behavior.

3.What is SDLC? Explain each phase of SDLC:

Software Development Life Cycle is process used by Software development organizations to plan, Analysis , Design , Coding , Testing , Deployment , maintenance etc.

SDLC phase

1. Analysis
2. Design
3. Implementation
4. testing
5. manitenance

1.Analysis:

The second step of SDLC is gathering maximum information from the client requirements for the product. The development team will then analyze the requirements keeping the design and code of the software in mind. Further, investigating the validity and possibility of incorporating these requirements into the software system.

2.design:

1. Design Architecture Document
- 2.Implementation Plan
- 3.Critical Priority Analysis
- 4.Performance Analysis
- 5.Test Plan
- 6.The Design team can now expand upon the information established in the requirement Document.
- 7.The requirement document must guide this decision process.

3. Implementation:

In the implementation phase, the team builds the components either from scratch or by composition

For example, a component may be narrowly designed for this particular system, or the Component may be made more general to satisfy a reusability guideline.

4.Tesing

Simply stated, quality is very important. Many companies have not learned that quality is important and deliver more claimed functionality but at a lower quality level.

- 1.Manual Testing: - It is perform the tests step by step without help of tool.
2. Automation Testing:- Tests are execute automatically using Frameworks

5.Maintenance Phase

The maintenance phase is the final stage of the SDLC It can include software upgrades, repair & fixes of the software if it breaks

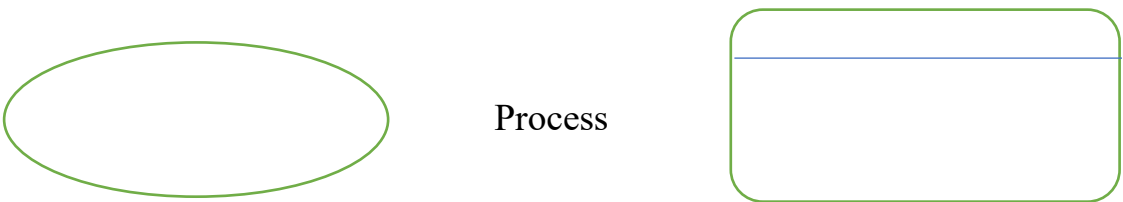
[4.What is DFD? Create a DFD diagram on Flipkart](#)

What is DFD

- DFD is used to show the flow of data through software system
- COMPONENTS OF THE DFD
- **EXTERNAL ENTITY:**
 1. It provide the data to your software are or consume data through it.



- **PROCESS**
 - It take data and convert it information .



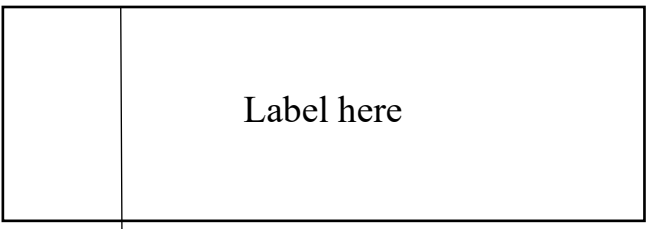
- **DATA FLOWS:**

It shows the flows of data incoming or outgoing .



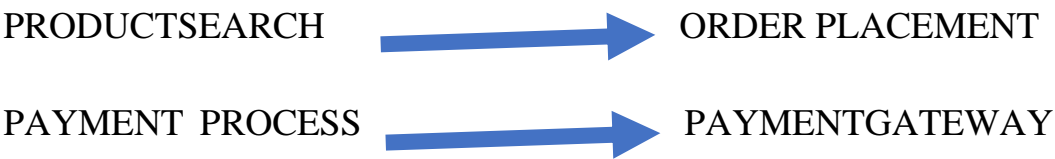
- **DATA STORES :**

This is yours database or file where you store data.



[DFD diagram on Flipkart](#)

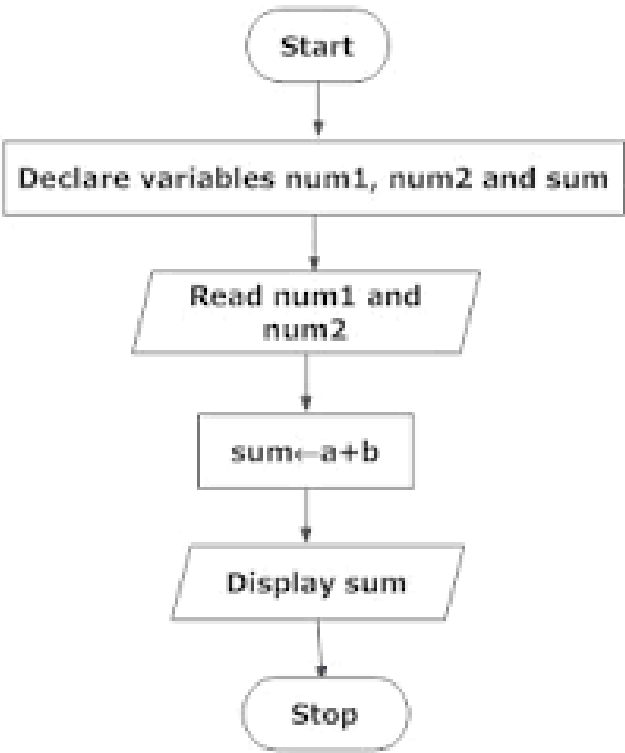




5. What is flow chart? Create a flow chart to make addition of two numbers?

Flow chart is a picture of the separate steps of a process in sequential Order.

Flow chart Addition of two number:



6.What is usecase diagram? Create a usecase on bill payment on Paytm?

A use case diagram is a visual representation of the interactions between users and a system, depicting the various ways the users can use the system.

- ➡ **REGISTRATION**
- ➡ **SELECT BILL TYPE**
- ➡ **BILL DETAILS**
- ➡ **PAYMENT METHOD**
- ➡ **PAYMENT GATEWAY**
- ➡ **PAYMENT PROCESS**
- ➡ **PAYMENT CONFIRMATION**