


# 1.What is software? What is software engineering?



Software is a set of instructions, data or programs used to operate computers and execute specific tasks. It is the opposite of hardware, which describes the physical aspects of a computer.

**Software Engineering** is the process of designing, developing, testing, and maintaining software. It is a systematic and disciplined approach to software development that aims to create high-quality, reliable, and maintainable software.

## 2.Explain type of software?



**Three type of software**


1. System software
2. Application software
3. Utility software

**1.System software:** If you think of software as being in layers, the system software is the bottom layer: it sits between the hardware and the application software. Operating systems like Windows, macOS, Android and iOS are examples of system software.

**2.Application software:** This is everything else! Anything that is not an operating system or a utility is an application or app. So a word processor, spreadsheet, web browser, and graphics software are all examples of application software, and they can do many specific tasks.

**3.Utility software:** Utility software is part of the system software and performs specific tasks to keep the computer running. Utility software is always running in the background. Examples of utility software are security and optimisation programs.

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



The software development lifecycle (SDLC) is the cost-effective and time-efficient process that development teams use to design and build high-quality software. The goal of SDLC is to minimize project risks through forward planning so that software meets customer expectations during production and beyond. This methodology outlines a series of steps that divide the software development process into tasks you can assign, complete, and measure.

1. Planning
2. Analysis
3. Design
4. Development

- 5. Testing
- 6. Implementation
- 7. Maintenance

## 4. What is DFD? Create a DFD diagram on Flipkart

DFD -----> Data Flow Diagram  
Flow chart  
Usecase Diagram

### DFD

Customer ----->	Registration
Product Search ----->	Product Confirmation
Payment Process <-----	Payment Gateway

Customer is a Registration, Product Search, Product Confirmation, and Payment Process are processes that handle data.

Payment Gateway is an external entity that interacts with the system to handle payment transactions.

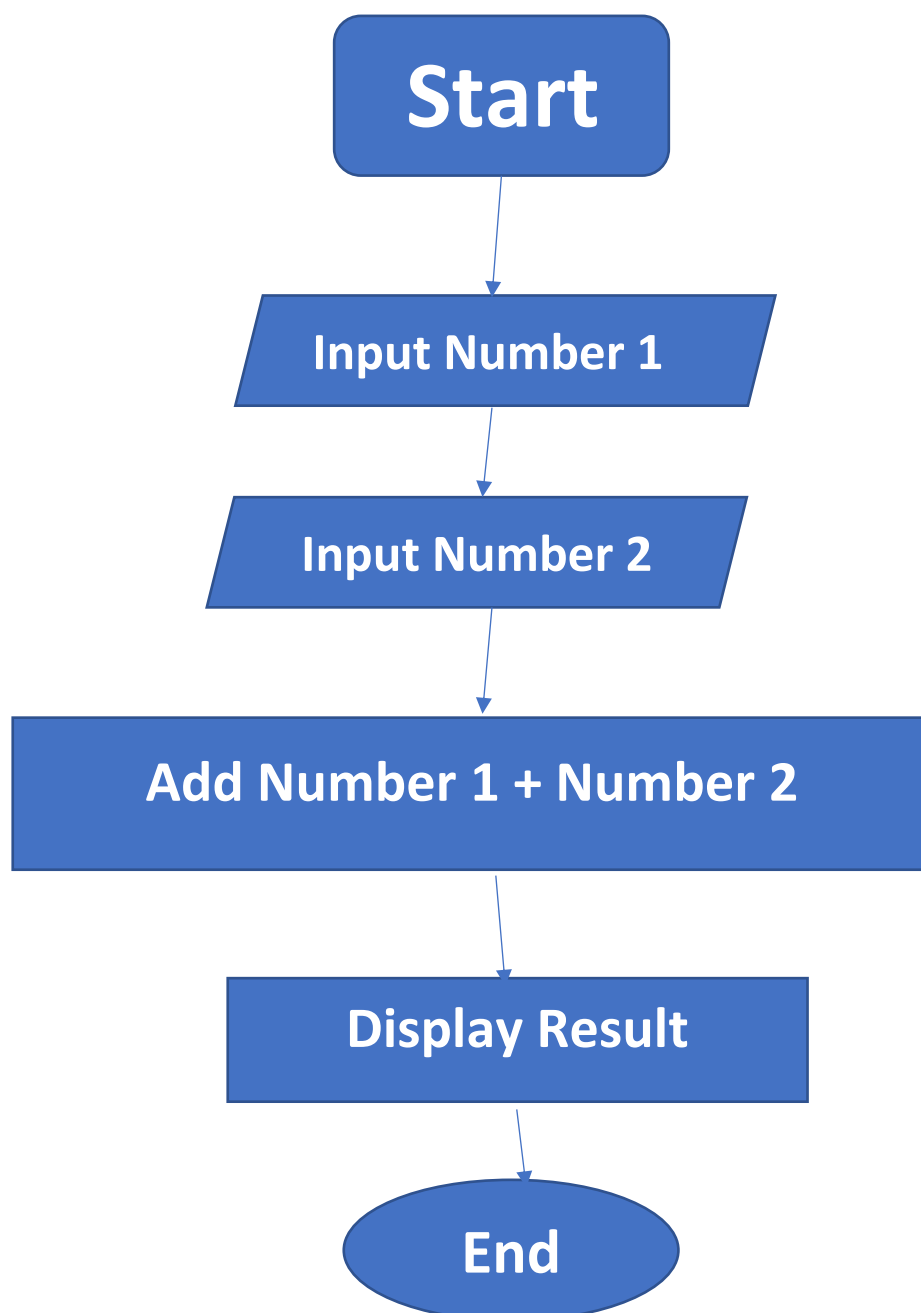
## 5. What is Flow chart?

Create a flowchart to make addition of two numbers.

### Flow char

Flow chart is a blue print of any software. flow chart helps to see what is work and how the software work, flow chart make the visualization.

Of software easy to understand.



## 6. What is Use case Diagram? Create a use-case on bill payment on paytm.

Actors : user who interact with the system

Usecase : Services Provided by the System

System Boundry : Scope of the system

Relations : Relation between Entities and User or them selver

User : -----> Reqistration

-----> Login

Select bill type

Enter bill details

Payment Gateway

Payment processing

Payment Confirmation