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 Software refers to a set of instructions which enable the hardware to perform a specific set of tasks

Software engineering -:

Software Engineering is the process of designing, developing, testing, and maintaining software. Software engineers apply engineering principles and expertise in programming languages to design and develop software solutions that meet the needs of users. Software engineering is the application of engineering principles combined with knowledge of programming languages to create software solutions for users

2 . Explain types of software

There are Mainly 3 types of software

(I).System Software:-

Type of software that is designed for providing a platform to other software. It manages the hardware components of a computer and provides services for application software

Ex – Operating systems Like MacOs , Linux , Android , Windows etc.

(II).Application Software:-

Application software is designed to help users perform specific tasks or activities on a computer or mobile device.

Ex – Google chrome , Safari , Firefox , Microsoft Edge etc.

(III).Utility Software:-

Utility software helps manage and maintain computer hardware and software.Utility software is a program or tool that performs specific tasks to enhance productivity, efficiency, functionality, or maintenance of a computer system.

Ex- Anivirus Software , Backup Software etc.

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.

Planning :-

 The first phase of the SDLC is the project planning this is the part where the team estimates the cost and defines the requirements of the new software.

Analisys:-

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.

Design:-

The design phase will include the development of a protype.It is concrened with finding the tecnical solutions, developing modules and logic development for coding.

Coding/Implementation: -

Development team member divides the project into software modules & turn the software requirement into code that make the project.

Testing:-

Testing is use to check an error in program. The testing process can also help hash out any major user experience issues and security issues.

1.Manual Testing: - It is perform the tests step by step without help of tool.

2. Automation Testing:- Tests are execute automatically using Frameworks

Deployment: -

In this phase your final product is delivered to your intended user. You can automate this process and schedule your deployment depending on the type.
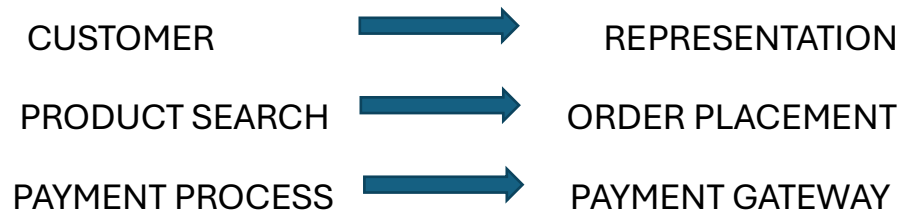
Maintenance: -

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 DFD diagram on flipkart?

A data flow diagram (DFD) is a graphical or visual representation using a standardized set of symbols and notations to describe a business's operations through data movement.
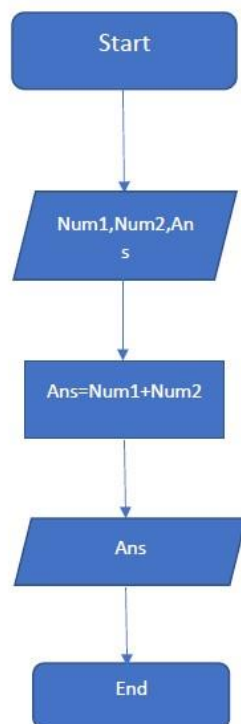
DFD Diagram on Flipkart

CUSTOMER ➡️ REPRESENTATION

PRODUCT SEARCH ➡️ ORDER PLACEMENT

PAYMENT PROCESS ➡️ PAYMENT GATEWAY

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.

User:-

⟶ REGISTRATION

⟶ SELECT BILL TYPE

⟶ BILL DETAILS

⟶ PAYMENT METHOD

⟶ PAYMENT GATEWAY

⟶ PAYMENT PROCESS

⟶ PAYMENT CONFIRMATION