MODULE–1

1.What is software ? What is software engineering ?

Software is a set of instructions, data, or programs used to operate computers and perform specific tasks. Unlike hardware, which is the physical components of a computer system, software is intangible and consists of the programs and applications that tell the hardware what to do.

Software engineering :

Software engineering is the discipline of designing, developing, testing, and maintaining software systems. software development, aiming to produce high-quality software that is functional, cost-effective, and maintainable over time.

2.Explain types of software.

There are Mainly 3 types of software.

(I).System Software:-

System software is a type of computer software designed to manage and control the hardware components of a computer, providing an environment or platform for application software to operate.

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

(II).Application Software:-

An application layer is an abstraction layer that specifies the shared communication protocols and interface methods used by hosts in a communications network. An application layer abstraction is specified in both the Internet Protocol Suite (TCP/IP) and the OSI model.

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 ?

Is process used by Software development organizations to plan, Analysis , Design , Coding , Testing , Deployment , maintenance etc.

Planning :-

Planning is developing strategies, and outlining tasks and schedules to achieve those goals.. Planning can be applied to various contexts, such as personal life, project management, business strategy, or software development.

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.

Design:-

The design will include the development of a protype.It is 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.

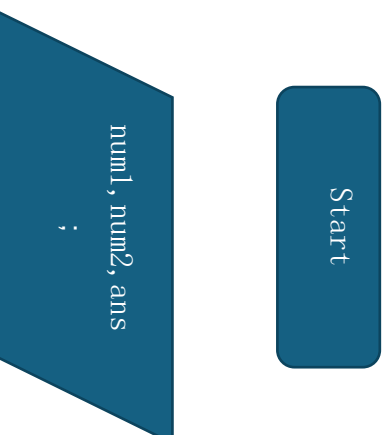## 4.What is DFD? Create DFD diagram on flipkart?

A Data flow diagram is a graphical representation of how data flows within a system. It the movement of data between external entities, processes, and data stores within a system.

Customer --------------------à Items to purchose

Identify item -------------à Items to Prices

Cost of Order ------------à Amount to be Paid

Payment process --------à Payment Getway

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

Start

num1, num2, ans

;

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 GETWAY

-----> PAYMENT PROCESS

-----> PAYMENT CONFIRMATION

ans=num1+num2;

Ans

End