**MODULE-1**

**1.What is** **software ? What is software** **engineering ?**

Software is a set of instructions that a computer, web-based application, other device function. It's of hardware, refers to the physical parts of a computer.

**Software engineering :**

Software engineering is the discipline of designing, developing, testing, and maintaining software systems.

**2.Explain types of software.**

There are Mainly 3 types of software.

**(I****).System** **Software:-**

System software :- System software is a set of computer programs manages and operates a computer's hardware and application programs.

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

(II). Application Software: -

Application software is a program or collection of programs that perform specific tasks for a user, such as processing data, word processing, or web browsing.

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 be applied to various contexts, personal life, project management, business strategy, or software development**.**

**Analysis:-**

The second step of SDLC is maximum information from the client requirements for the product. The development team will 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 error in program. The testing process can also help out 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 user. 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.

* **Customers ----------------------------------> A items to purchose**
* **Identify item ----------------------------------****> A items to prices**
* **Cost of order ----------------------------------> A amount to be paid**
* **Payment process ----------------------------> A 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:*

Start

num1,num2,ans;

ans=num1+num2;

Ans

End

**6.What is use case diagram? Create a use case 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**