**MODUL 1 ASSIGNMENT**

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

Ans:- **Software :-** It is a set of instruction that tell a computer how to perform any task.

* **Software engineering :-** Software engineering is the field of study and practice that involves designing, developing, testing, and maintaining software.

1. **Explain types of software.**

Ans:-

-->**Three types of software: -**

1. System software
2. Application software
3. Utility software
4. **System software :-** It is a software that directly interacts with the hardware of the computer and manages the resources of the computer, also insures that hardware components work together smoothly.

* **Ex:-** Operating system(mac, windows…), device drivers(software that allows hardware components to communicate with the OS) …etc

1. **Application software:-** It is a software where people directly interact to perform their tasks.

* **Ex:-** web browser(chrome, edge…), word processors( Microsoft word, Google docs , Games , photo editing software …etc. ( all the types of software that we are using online).

1. **Utility software:-** It is a software that performs specific tasks to optimize and maintain the computer system. In simple terms it is a set of tools that help people to run their computer smoothly.

* **Ex:-** Anti- virus software, backup and recovery software...etc.

1. What is SDLC? Explain each phase of SDLC

Ans:- (Software Development Life Cycle) is a process to plan , design , develop , test , deploy and maintain software applications.

* **Phases of SDLC :-**
* **planning** ( invention of uber, driver will connect with the client)
* **Analysis** ( the product that we are making is actually necessary in the market or not. to check its cataria analysis is necessary)
* **design** (ui/ux designer , like in uber there are many facilities like autorickshaw, car, bike , 6 person car etc... as per category people will choose its ride)
* **Implementation**( converting code)
* **Testing and integration** ( main scalability(many people are logging in a website), security of the code)
* **maintenance** ( on going maintenance (like daily update in amazon website/ one time maintenance( like occasionally need to update new data)

+ **SDLC methodology Requirement**---> Analysis---> designing---> implementation---> testing--->maintenance. working processor: In this process, if there is a requirement, the design will be based on what that requirement is. After the design is created, the code will be developed, followed by verification, meaning testing to see if the software is ready for launch or not. If it is not ready, then the process will reverse, and the implementation team will be instructed to make changes, and then testing will be done again to verify if the requested changes are completed. After verification, the software will be launched and finally moved to maintenance.

1. **What is DFD? Create a DFD diagramon Flipkart**

Ans:- DFD (Data Flow Diagram) shows how data moves through a system.

* Example of Flipkart DFD Diagram:-

Flipkart DFD:-

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Customer ------------------> Registration

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Product search ------------------> Order Placement

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Payment process <------------------ Payment Gateway

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1. **What is Flow chart? Create a flowchart to make addition of two numbers**

Ans:- A flowchart is a type of diagram that represents a workflow or process. It displays step by step solutions to a problem, algorithm, or process.

**🡪Flow chart of two No addition**

Start

Num1, Num2

Num1> Num2

Num2 is Big

Num1 is Big

End

1. **What is Use case Diagram? Create a use-case on bill payment on paytm.**

Ans:- A Use Case Diagram shows how users interact with a system.

🡪 **Use-case Diagram:-**

**Registration**

**Select bill type**

**Bill Details**

**Payment Method**

**Payment Gateway**

**payment process**

**payment conformation**