Module–1(Fundamental)

• What is SDLC

Software Development Life Cycle (SDLC) is structure or Process or series of steps to develop a quality software.

• What is software testing?

Software Testing is a process used to identify the correctness, completeness, and quality of developed computer software.

• What is agile methodology?

Agile methodology is an SDLC model based on itrative and Icrementive process.

• What is SRS?

software requirements specification (SRS) is a complete description Of the behavior of the system to be developed.

OR

Use case are also known as functional requirement and srs is non funtional requirement.

• What is OOP?

Object Oriented Programming (OOP) it focus on data or the object rather process.

• Write Basic Concepts of OOP

1. Object
2. Class
3. Encapsulation
4. Inheritance
5. Polymorphism

6. Abstraction

• What is Object ?

" An instance of class "

• What is class

" A blueprint for an object "

• What is Encapsulation

" Wrapping upto of data into a single unit " (class)

• What is Inheritance

" Ability of adapt the behaviour of product "

• What is polymorphism

" Ability to react in different way "

• Write SDLC phases with basic introduction

1. Requirements collection/ gathering :- Establish Customer Needs

2. Analysis :- Model And Specify the requirements- what

3. Design :- Model And Specify a Solution- why

4. Implementation/ development :- Construct a Solution In Software

5. Testing :- Validate the solution against the Requirements

6. Maintenance :- Repair defects and adapt the solution to the new requirements

• Explain Phases of the waterfall model

1. Requirements collection/gathering

2. Analysis

3. Design

4. Implementation/ development

5. Testing

6. Maintenance

• Write phases of spiral model

1. Planning

2. Risk analysis

3. Engineering

4. Customer evaluation

• Write agile manifesto principles

1. Individuals and interactions

2. Working software

3. Customer collaboration

4. Responding to change

• Explain working methodology of agile model and also write pros and cons

Agile SDLC model is a combination of iterative and incremental Process models with focus on process adaptability and customer Satisfaction by rapid delivery of working software product

Prons

1. Promotes teamwork and cross training.

2. Resource requirements are minimum

3. Suitable for fixed or changing requirements

4. Minimal rules

5. Easy to manage

Cons

1. Not suitable for handling complex dependencies

2. Transfer of technology to new team members may be quite challenging Due to lack of documentation

3. More risk of sustainability, maintainability and extensibility.

USE CASE : ONLINE BOOK SHOPPING

ANS : https://app.diagrams.net/#G1NODOxXC5I4QlhKn2iGIU2IHTJo8nhU0O

USE CASE : ONLINE BILL PAYMENT PAYMENT SYSTEM

ANS : https://app.diagrams.net/#G1HRSI9YQ3QG2xRsZXJUDdHf0lQ3JT3Sb6

USE CASE : ONLINE SHOPPING PRODUCT

ANS : https://app.diagrams.net/#G1OH-wZNXGYDOBTi2s4QNQ7PI8PHjsgBis

USE CASE : PAYMENT GATWAY

ANS : https://app.diagrams.net/#G1i-0BT2KrPmZpMWhemJ2arWvHr4jsbkIv