Module- 1

1. What is SDLC?

Ans. SDLC stands for software Development Lifecycle. SDLC is a sequence process in which software will be developed. It defines products implementation, ongoing process, testing etc..

2. What is Software Testing?

Ans. Software testing is a process used to identify correctness, completeness and quality of developed software.

3. What is Agile Methodology?

Ans. Agile Methodology is a combination of iterative and incremental model. It breaks the product into smaller incremental parts. And its believes that every project needs to be handled differently. This Methodology focus on process adaptability and customer satisfaction. In Agile there is no deadlines given and it's suitable for long-term and complex projects.

4. What is SRS?

Ans. SRS stands for software requirement Specification. This is the complete description and behavior and all the requirements of the software which will be developed.

5. What is OOPS?

Ans. OOPS stands for Object Oriented Programming. It is basically work on objects and classes. Identifying objects and then assign some responsibility to that object.

6. Write Basic concept of OOPs?

Ans. Basic Concepts:

    1. Class
    2. Objects
    3. Encapsulation
    4. Inheritance

5. Polymorphism
    1. Overloading
    2. Overriding
6. abstraction

7. What is Object?

Ans. Object is an instance of the class. In which both data and functions that operate on data are bundled as unit that is called object.

8 What is Class?

Ans. Class Is a blueprint for the object it abstract the property and the behavior of the object.

9. What is encapsulation?

Ans. Encapsulation is a concept of data hiding. It hide the object's data from the other object. The internal data is not accessible by the other objects.

10. What is Inheritance?

Ans. Inheritance is a concept in which one class inherits the behavior and the property of the other class. It has its child and parent class.

11. What is Polymorphism?

Ans. Polymorphism means have "many forms". It allows object to react the same messages in different ways. It has 2 methods.

1 overloading -> same method name with different operators.

2 overriding -> same operator and same method name

14. Write SDLC phases with basic introduction?

Ans. There are 6 SDLC phases

1 Requirement Gathering :-

Its established and listed the needs of the customer.

2 Analysis :-

After the requirements getting how will it established and how they work. It measures how this requirement will be accomplished. It represent the “what” and “how” phase

3 Design :-

It is a test plan and critical analysis. After analysis design team expand the design with the help of requirement document.

4 Implementation :-

It’s a stage where actual coding started. Main business logic will be developed and software will be implemented.

5 Testing :-

Everyone can make mistake that’s why every software that is implemented needs to be test. It can be done in this phase there are many testing phases like unit testing, iterative testing, regression testing, application testing etc. Where tester finds the defect In developed software.

6 Maintenance :-

As the name suggest maintenance include the great maintain of software application. It include configuration and version management , updating software, solve bug and errors .

15. Explain the phases of the Waterfall Model.

Ans. Waterfall model has 6 phases

1 planning or Requirement gathering:-

This phase identify what the project should accomplished and customer needs. All the requirements are fixed before it implement.

2 Analysis:-

After the completion of requirement gathering team will analysis how how can be it implement and what king of risks or any other problem

Will be generate and how we can fix that.

3 Design:-

This phase include the documentations of your decision and you develop the solutions that can solve projects requirement.

4 implementation:-

Main implementation started in this phase where actual coding and business logic take place and process executes of your project

5 Testing:-

It verifies the project and test it and find the defect generating due to implementation.

6 Maintenance:-

Project will be highly maintain after fixing the bug and update it time to time and make some minor modifications to improve projects worth.

16. Write Phases of Spiral Model.

Ans. Spiral Model has 4 phases

1 planning:-

Determination of objective, constraints and alternatives. There are the basic requirements of customers.

2 Risk analysis:-

Analysis of the risk, something that will delay the project or increase its cost. And then take the decision on do or do not.

3 Engineering:-

Actual coding Implementation that build the project.

4 Customer Evaluation:-

It is the result of the engineering. And make the alpha demo for the customer evaluation. And if the requirements will not satisfied it will be restart from phase one until the requirements matched or in case of project duration will be set.

17. Write Agile Manifesto principles.

Ans. Agile Manifesto principles

- Individuals and interactions over processes tools.
- Responding to change over following the plan.
- Customer collaboration over contract negotiation.
- Working software is the primary measure of progress.

18. Explain working methodology of Agile model and also writes pros and cons .

Ans. Agile Model is the combination of the iterative and incremental process models which focus on customer satisfaction . Agile models break the product into small incremental builds. This builds are provided in iteration. Every iteration involves cross functional team working and then working product will be displayed to the customers.

PROS :-

- Promotes Teamwork
- Suitable for long term projects
- Suitable for fixed or changing requirement
- Easy to manage
- Give flexibility to the users.
- Minimum Resource requirement

CONS:-

- No deadlines are fixed
- Not suitable for complex projects
- More risk of maintainability
- Highly depended on customer interaction.
- High individual dependency because there are minimum requirements needed.