

Software Testing Assignment

Module–1(Fundamental)

1• What is SDLC

Ans- SDLC is a structure imposed on the development of a software product that defines the process for planning, implementation, testing, documentation, deployment, and ongoing maintenance and support. There are a number of different development models. A Software Development Life Cycle is essentially a series of steps, or phases, that provide a model for the development and lifecycle management of an application or piece of software.

2• What is software testing?

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

Testing is the process of evaluating a system or its component(s) with the intent to find that whether it satisfies the specified requirements or not.

testing is executing a system in order to identify any gaps, errors or missing requirements in contrary to the actual desire or requirements.

3• What is agile methodology?

Ans-The Agile methodology is a way to manage a project by breaking it up into several phases. It involves constant collaboration with stakeholders and continuous

improvement at every stage. Once the work begins, teams cycle through a process of planning, executing, and evaluating.

4● What is SRS

Ans-A software requirements specification (SRS) is a complete description of the behaviour of the system to be developed. It includes a set of use cases that describe all of the interactions that the users will have with the software. Use cases are also known as functional requirements. In addition to use cases, the SRS also contains non-functional (or supplementary) requirements.

5● What is oops

Ans-Object Oriented Programming System

- Object means a real world entity such as pen, chair, table etc.
- Object-Oriented Programming is a methodology or paradigm to design a program using classes and objects.
- It simplifies the software development and maintenance by providing some concepts.

6● Write Basic Concepts of oops

Ans-Basic Concepts of opps are

- Object • Class • Inheritance • Polymorphism • Abstraction
- Encapsulation

7 • What is class

Ans-This doesn't actually define any data, but it does define what the class name means, that is, what an object of the class will consist of and what operations can be performed on such an object.

8 • What is encapsulation

Ans-Encapsulation is the practice of including in an object everything it needs hidden from other objects. The internal state is usually not accessible by other objects.

Encapsulation is placing the data and the functions that work on that data in the same place. While working with procedural languages, it is not always clear which functions work on which variables but object-oriented programming provides you framework to place the data and the relevant functions together in the same object.

9 • What is inheritance

Ans- **Inheritance means that one class inherits the characteristics of another class. This is also called a “is a” relationship.**

In general, Java supports single-parent, multiple-children inheritance and multilevel inheritance (Grandparent-> Parent -> Child) for classes and interfaces. Java supports multiple inheritances (multiple parents, single child) only through.

10• What is polymorphism

Ans- The ability to use an operator or function in different ways in other words giving different meaning or functions to the operators or functions is called polymorphism.

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There is two types of polymorphism in Java ●

Compile time polymorphism(Overloading) ●

Runtime polymorphism(Overriding)

11• Draw Usecase on Online book shopping

12.Draw Usecase on online bill payment system (paytm)

13. Write SDLC phases with basic introduction

Ans- SDLC Phases

Requirements Collection/Gathering

Establish Customer Needs

Analysis

Model And Specify the requirements- “What”

Design

Model And Specify a Solution – “Why”

Implementation

Construct a Solution In Software

Testing

Validate the solution against the requirements

Maintenance

Repair defects and adapt the solution to the new

14.Explain Phases of the waterfall model

15• Write phases of spiral model

Ans-

16• Write agile manifesto principles

Ans- ●

Customer satisfaction through early and continuous software delivery – Customers are happier when they receive working software at regular intervals, rather than waiting extended periods of time between releases.

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Accommodate changing requirements throughout the development process – The ability to avoid delays when a requirement or feature request changes.

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Frequent delivery of working software – Scrum accommodates this principle since the team operates in software sprints or iterations that ensure regular delivery of working software.

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Collaboration between the business stakeholders and developers throughout the project – Better decisions are made when the business and technical team are aligned. ●

Support, trust, and motivate the people involved – Motivated teams are more likely to deliver their best work than unhappy teams.

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Enable face-to-face interactions – Communication is more successful when development teams are co-located.

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Working software is the primary measure of progress – Delivering functional software to the customer is the ultimate factor that measures progress.

17● Explain working methodology of agile model and also write pros and cons.

Ans- ● 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.

- Agile Methods break the product into small incremental builds.
- These builds are provided in iterations.
- Each iteration typically lasts from about one to three weeks.
- Every iteration involves cross functional teams working simultaneously on various areas like planning, requirements analysis, design, coding, unit testing, and acceptance testing.
- At the end of the iteration a working product is displayed to the customer and important stakeholders.

Agile Cons -

- Not suitable for handling complex dependencies.
- More risk of sustainability, maintainability and extensibility.
- An overall plan, an agile leader and agile PM practice is a must without which it will not work.

- Strict delivery management dictates the scope, functionality to be delivered, and adjustments to meet the deadlines.

Agile Pros-

- Is a very realistic approach to software development
- Promotes teamwork and cross training.
- Functionality can be developed rapidly and demonstrated.
- Resource requirements are minimum.

18. Draw usecase on Online shopping product using COD.

19● Draw usecase on Online shopping product using payment gateway.