

Software testing Assignment (Module: - 1)

1. **What is software testing?**

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

1. **What is SDLC?**

* **SDLC** a software Development Life Cycle. It 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.

1. **What is agile Methodology?**

* 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.

1. **What is SRS?**

* A software requirements specification (SRS) is a complete description of the behaviour of the system to developed.

1. **What is OOPS?**

* **OOPS** is an object-oriented programming system.

An object is like a black box. Identifying object and assignment responsibilities to these objects.

1. **Write basic concept of OOPS?**

* **OOPS (**Object-oriented programming system**)** basic concept is:

**(I)** Class

**(ii)** Object

**(iii)** Encapsulation

**(iv)** Inheritance

**(v)** Polymorphism

**(vi)** Abstraction

1. **What is object?**

* This is the basic unit of object-oriented programming (OOP). That is both data and function that operate on data are bundled as a Unit called as object.

1. **What is Class?**

* A class represents an abstraction of the object and abstracts the properties and behaviour of that object. When you define a class, you define aa blueprint for an object.

1. **What is Encapsulation?**

* 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.

1. **What is Inheritance?**

* Inheritance means that one class inherits the characteristics of Another class.

1. **What is Polymorphism?**

* Polymorphism means “having many forms.” It allows different objects to respond to the same message indifferent Ways, the response specific to the type of the object.

1. **Draw Use case on Online book shopping?**

Create online shopping app account.

Finding best rating or selling book

Choosing book and buying quantity

Click the buying option.

**Customer**

Customer

Add current Address.

Select payment method.



Click the conform order option.

Thank you buy order Page.

Seeing your order status

1. **Draw Use case on online bill payment system (Paytm)?**

Login Paytm and open app

Link Bank account or UPI ID.

Finding the bill payment option

Add bill no. And customer phone no.

**Costumer**

Customer

Add amount and check fill up details.



Click pay now option.

Enter the UPI pin.

Wait few seconds.

Download bill receipt.

1. **Write SDLC phases with basic introduction?**

* **SDLC** phases is,
  + **1. Requirement Gathering:** Requirements definitions usually consist of natural language, Supplemented by (e.g., UML) diagrams and tables.
  + **2. Analysis:** The analysis phase defines the requirements of the system, independent of How these requirements will be accomplished.
  + **3. Design:**  The Design team can now expand upon the information established in the requirement document. The requirement document must guide this decision process. Analysing the trade-offs of necessary complexity allows for many things to remain simple which, in turn, will eventually lead to a higher quality Product.
  + **4. Implementation:** Implementation – Code, Critical Error Removal The implementation phase Deals with issues of quality, Performance, Baselines, Libraries, and debugging.
  + **5. Testing:** Simply stated, quality is Important. More companies have not learned that quality is Important and deliver more Claimed functionality but at Lower quality level.
  + **6. Maintenance:** Repair defects and adapt the solution to the new requirements

1. **Explain Phases of the waterfall model?**

* Waterfall model is the classical software lifecycle models the software development as a step – by – step “waterfall” between the various development phases. Waterfall is a short-term project. Requirements must be “frozen” to early in the life product.

1. **Write phases of spiral model?**

* **(I) Planning:** Determination of objective, alternatives and

constraints.

* **(ii) Risk Analysis:** Analysis alternatives and identifications /

resolution of risk

* **(iii) Customer Evaluation:**  Assessment of the result of engineering.
* **(iv) Engineering:** Development of the “next level” product.

1. **Write agile manifesto principles?**

* There are four principals:
* Individual interaction
* Working software (Document software)
* Customer collaboration
* Responding to change

1. **Explain working methodology of agile model and 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.

**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.

• Suitable for fixed or changing requirements.

**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 necessary

Without which it will not work.

**•** There is extremely high individual dependency.

• There is minimum Documentation generated.

1. **Draw use case on Online shopping product using COD?**

Create online shopping app account.

Finding best rating or selling product

Choosing useful product and buying quantity

Checking discount

**Customer**

**Customer**

Click the buying option.

Add current Address.

Select payment method.

Using coupon code

Click the conform order option.

Thank you buy order Page.

Seeing your order status

1. **Draw use case on Online shopping product using payment gateway?**

Go to the shopping website and select the product to buy.

Check the product details.

Check for any discount / Free delivery is available.

Select quantity and click on buy now option.

**Customer**

**Customer**

Next page is select payment option:

**(1)** coupon code **(2)** UPI **(3)** Credit Card **(4)** Debit Card

Select UPI option and then enter pin.

Wait for payment process.

Payment done & order conform.

Thank you for the invitation shopping.

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