

# Software Testing Assignment

## Module—1(Fundamental)

### **1) What is SDLC ?**

-> SDLC is Software Development Life Cycle. SDLC is a structured imposed on the development of software products that defines the process for planning, implementations, testing, documentation, deployment, and ongoing maintenance and support.

### **2) What is software testing?**

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

### **3) 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.

Agile Methods break the product into small incremental builds. These builds are provided in iterations.

### **4) What is SRS?**

->A software requirements specification (SRS) is a complete description of the behavior 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.

## **5) What is oops?**

->An object-based programming language is one which easily supports object-orientation. Identifying objects and assigning responsibilities to these objects. An object is like a black box.

## **6) Write Basic Concepts of oops?**

->Basic concept of oops is as the Following:

- Object
- Class
- Encapsulation
- Inheritance
- Polymorphism
  - Overriding
  - Overloading
- Abstraction

## **7) What is object?**

-> Any Entity which has own state and behaviour that is called an object.

Programming. An object represents an individual, identifiable item, unit, or entity, either real or abstract, with a well-defined role in the problem domain.

## **8) What is class?**

-> Collection of objects that is called class.

->class is a blueprint for an object. A class represents an abstraction of the object and abstracts the properties and behavior of that object.

->Class can be considered as the blueprint or definition or a template for an object and describes the properties and behavior of that object, but without any actual existence.

## **9) 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.

->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.

## **10) What is inheritance?**

-> Inheritance means that one class inherits the characteristics of another class. This is also called a “is a” relationship. Inheritance describes the relationship between two classes.

## **11) What is polymorphism?**

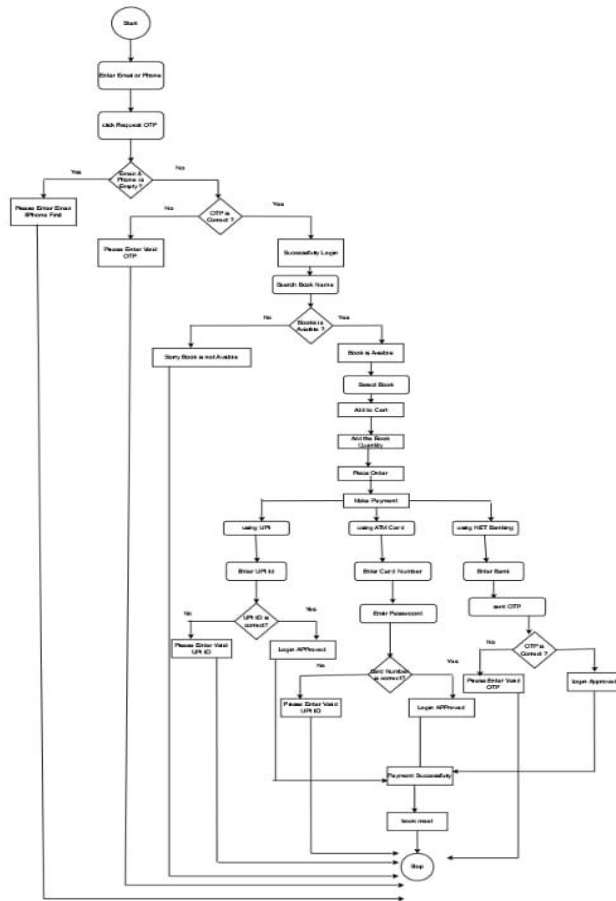
->Polymorphism means “having many forms”. It allows different objects to respond to the same message in different ways, the response specific to the type of the object.

-> The ability to change form is known as polymorphism.

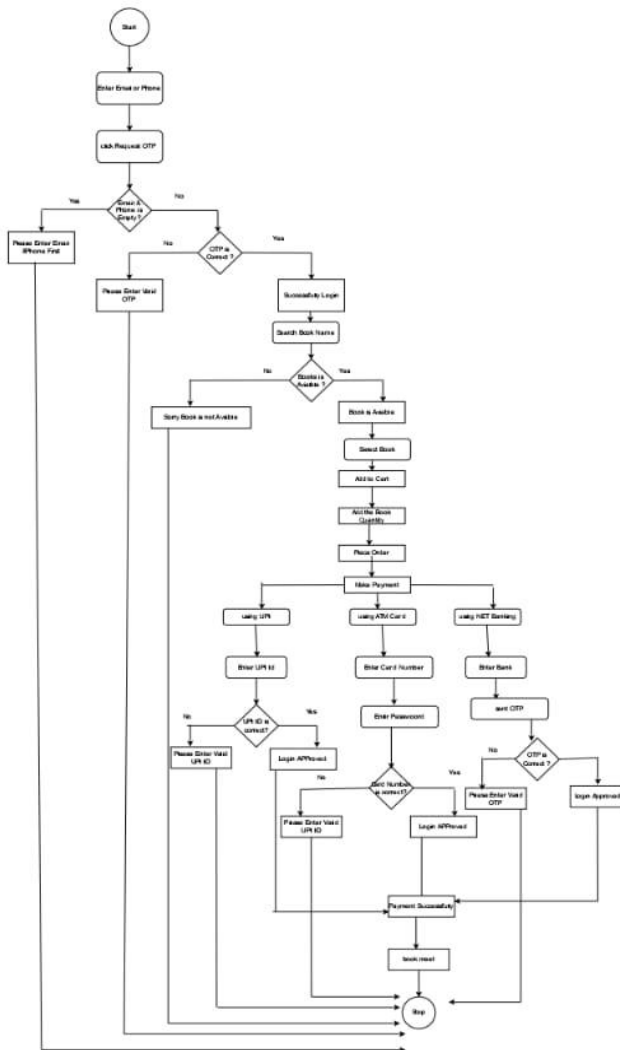
->There is two types of polymorphism in Java

- Compile time polymorphism(Overloading)
- Runtime polymorphism(Overriding)

## 12) Draw Usecase on Online book shopping?



### 13) Draw Usecase on online bill payment system (paytm).



**14) Write SDLC phases with basic introduction.**

-> SDLC Stands for Software Development Life Cycle.

-> 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.

**15) Explain Phases of the waterfall model?**

->The waterfall model phases is describe is as the following:

- Requirement Gathering
- Analysis
- Design
- Implementation
- Testing
- Maintenance

**16) Write phases of spiral model .**

-> The spiral model phases is describe is as the following:

- Planning
- Risk analysis
- Engineering
- Customer Evaluation

**17) 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.

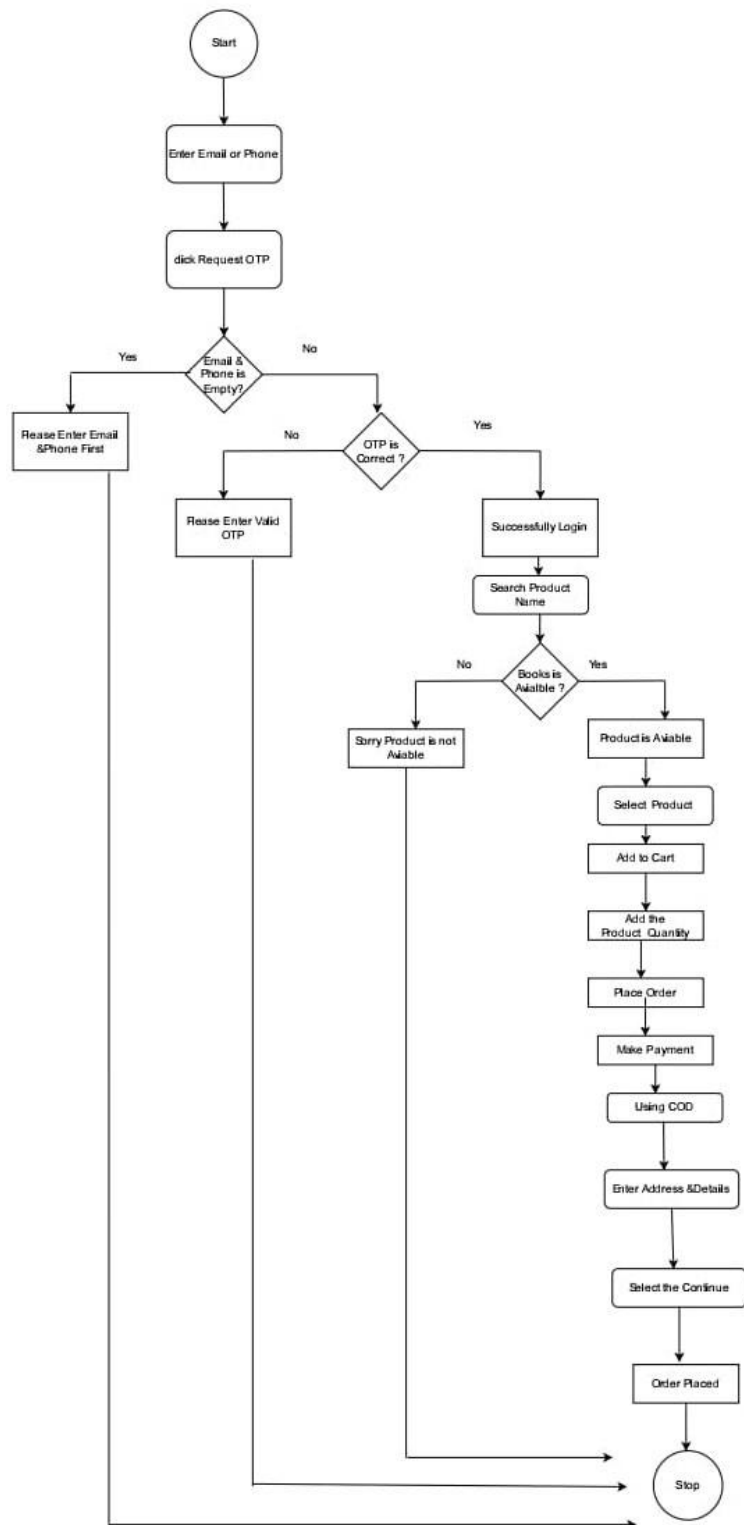
**Pros:**

- Little or no planning required
- Easy to manage
- Gives flexibility to developers
- Is a very realistic approach to software development
- Promotes teamwork and cross training.

**Cons**

- Not suitable for handling complex dependencies.
- More risk of sustainability, maintainability and extensibility
- Transfer of technology to new team members may be quite challenging due to lack of documentation.
- An overall plan, an agile leader and agile PM practice is a must without which it will not work.

**18) Draw usecase on Online shopping product using COD.**





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

