

SOFTWARE TESTING ASSIGNMENT

Module-1 (Fundamental)

1. What is SDLC

SDLC Means software development lifecycle.

The cost effective and time-efficient process that development teams use to design and build high-quality software.

2. What is software testing ?

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

Software testing is a process of executing a program or application with the intent of finding the software bug.

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.

4. What is SRS

SRS means software requirement specification (SRS)

A document that describes what the software will do and how it will be expected to perform

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

OOP means object oriented programming

An object is like a black box.

The internal details are hidden.

6. write basics concept of OOPS

Object

Class

Encapsulation

Inheritance

Polymorphism

7. What is object

Tangible things – car , printer,...

Roles – employee , boss,...

Incidents – flight , overflow,...

Interactions – contract , sales,...

Specifactions – colour , shape,...

8. What is class

Class is blueprint for an object

A class represents an abstraction of the object and abstracts the properties and behavior of that object.

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.

10. what is inheritance

Inheritance means that one class inherits the characteristics of another class.

This is also known as a relationship.

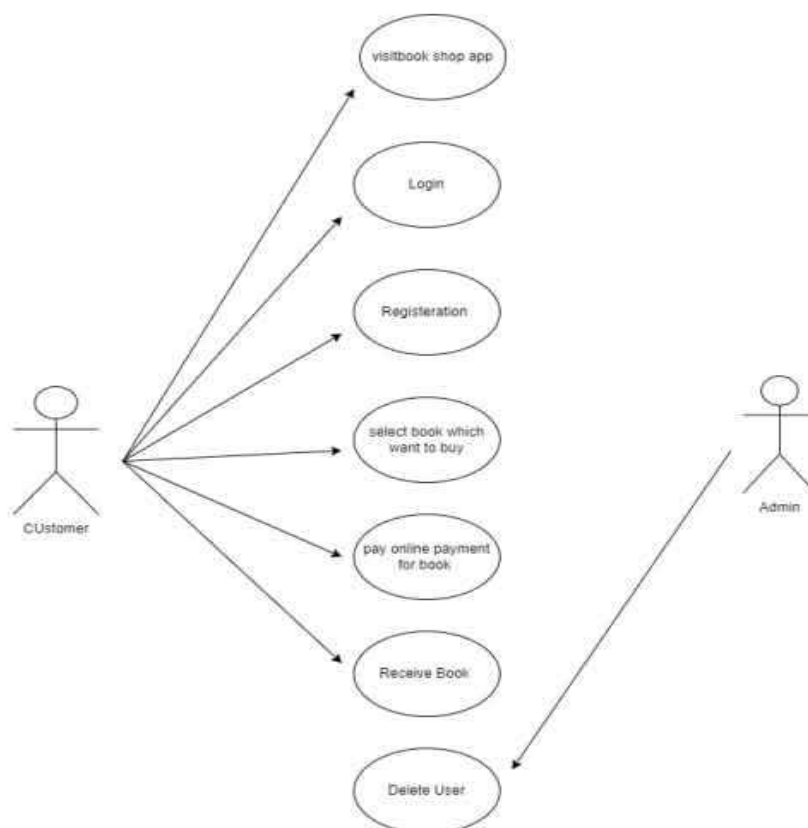
11. what is polymorphism

The ability to change form is known as polymorphism

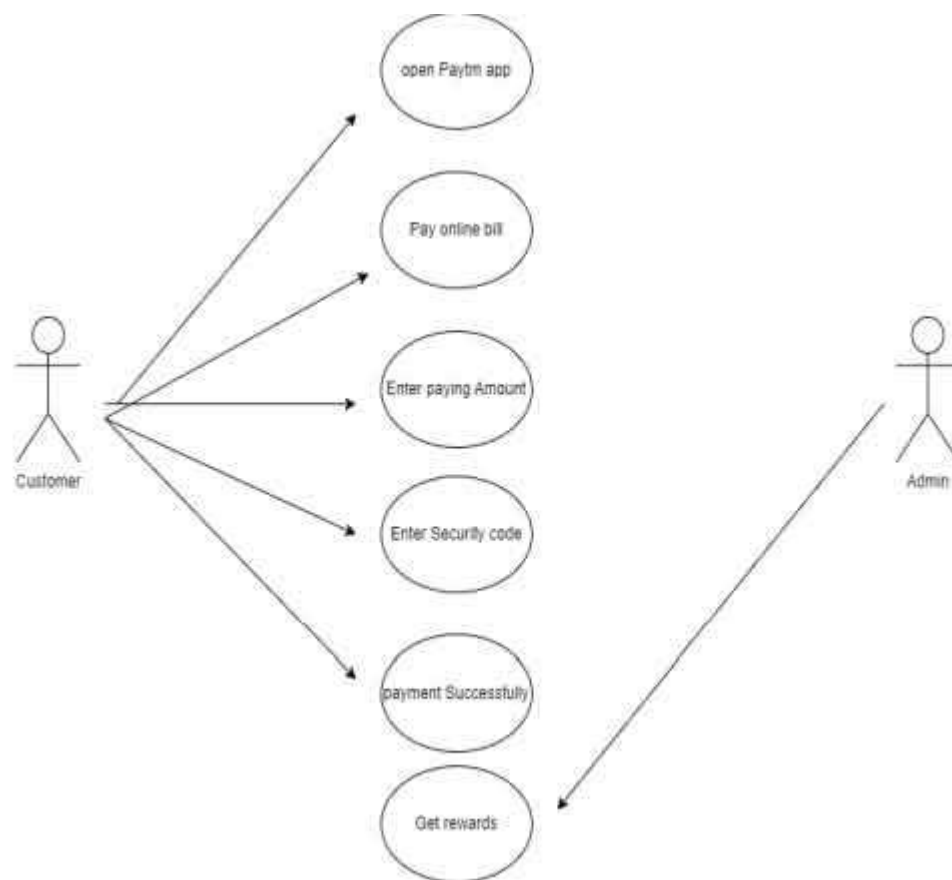
It is a single function which is used in many ways

It allows different objects to respond to the same message in different ways, the response specific to the type of the object.

12. Draw usecase on online book shopping



13. Draw use case on online bill payment system (paytm)



14. Write SDLC phases with basic introduction

Software development life cycle is essentially a series of step or phase that provide model for development and lifecycle management of an application or piece of a software.

SDLC phases

Analysis :-

Model and specify a requirement.

Design :-

Model and specify a solution “why”.

Impanation :-

Construct a solution in a software.

Testing :-

Validate a solution against the requirements.

Maintenance :-

Repair defect and adapt a solution into new requirements.

15. Explain phases of the waterfall model

The classical software lifecycle models the software development as a step by step waterfall between the various developmen phases.

Waterfall model phases :-

Requirement collection/gathering.

Analysis

Design.

Implementation.

Testing.

Maintenance.

16. Write phases of spiral model

The spiral model has four phases:-

Planning.

Design.

Construct.

Evaluation.

17. Write agile manifesto principles

Customer satisfaction through early and continuous delivery of valuable software.

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

Deliver working software frequently, with a preference for the shorter timescale.

Collaboration between business people and developers throughout the project.

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

18. 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.

Agile Methods break the product into small incremental builds.

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

Delivers early partial working solutions.

Little or no planning required

Easy to manage

Gives flexibility to developers

CONS:-

-Not suitable for handling complex dependencies.

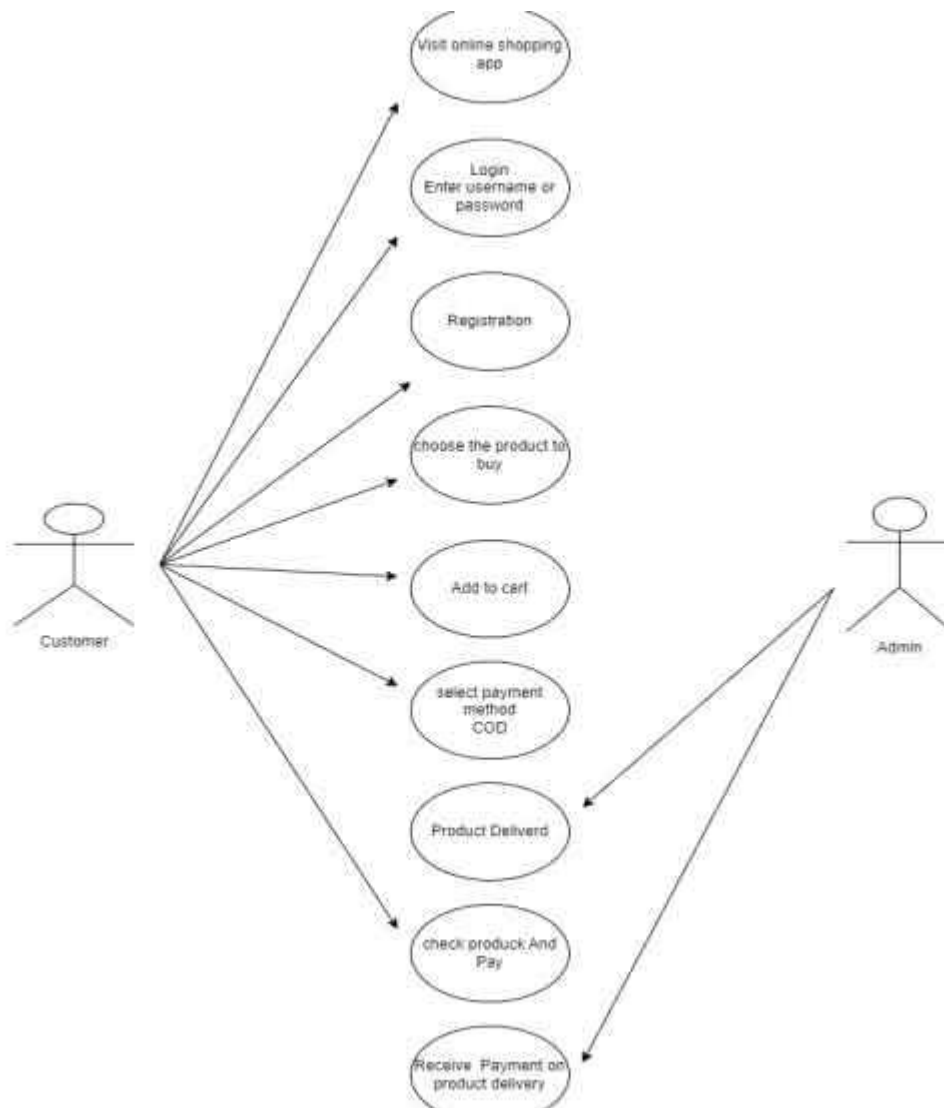
More risk of sustainability, maintainability and extensibility.

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.

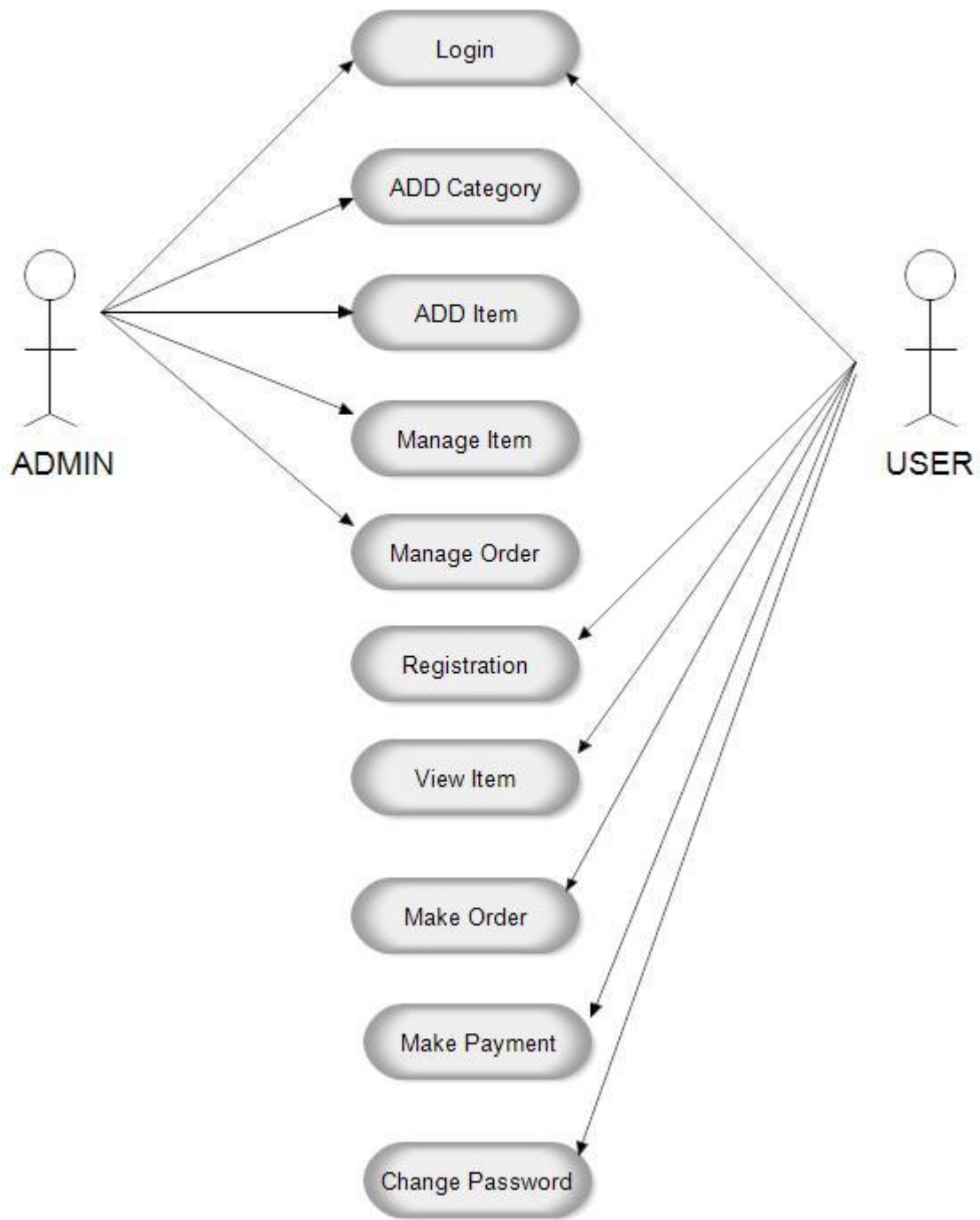
Transfer of technology to new team members may be quite challenging due to lack of documentation.

19. Draw use case on online shopping product using COD



20. Draw use case on online shopping product using payment gateway

Use Case Diagram for Online Shopping Website



Use Case Diagram for Online Shopping Website

