Software Testing Assignment

Module-1(Fundamental)

1) 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 systematic and organized process of evaluating a software application or system to verify and validate its functionality, performance, security, and other quality attributes.

2) What is SDLC?

SDLC stands for (Software Development life cycle.) SDLC is a structure imposed on the development of a software product. That defines the process of planning. **Implementation testing documentation deployment and ongoing** maintenance and support there are different development models.

3) Write SDLC phases with a basic introduction.

SDLC phases

▪ Requirements collection/Gathering
▪ Analysis
▪ Design
▪ Implementation
▪ Testing
▪ Maintenance

4) Explain the Phases of the waterfall model.

● Requirements Gathering and Analysis
● Deployment
● Design
● Coding
● Testing
● Maintenance

5) What is OOPS?

- Identifying objects and assigning responsibilities to these objects. Objects communicate with other objects by sending messages. An object is like a black box.

6) Explain the working methodology of the Agile model and also write pros and cons.

Agile SDLC model is a combination of iterative and incremental process models with a focus on process adaptability and customer satisfaction by rapid delivery of working software products.

Pros:

- Is a very realistic approach to software development
- Promotes teamwork and cross-training
- Resource requirements are minimum
- Good model for an environment that changes steadily

Cons:

- Not suitable for handling complex dependencies.
- More risk of sustainability, maintainability, and extensibility.
- There is very high individual dependency, since there is minimum documentation generated.

7) Phases of the waterfall model:

1. Requirement collection.
2. Analysis.
3. Design.
4. Coding.
5. Testing.
6. Maintenance

8) What is SRS?

· Software requirement specification (SRS) is a complete description of the system's behavior to be developed.

9) Write the basic concept of oops

· Identifying objects and assigning responsibility to these objects.
· An object is like a black box.
· The internal details are hidden.

The basic concept of oops:

1. Object
2. Class
3. Encapsulation
4. Inheritance
5. Polymorphism
6. Abstraction

10) What is object?

1. An object represents an individual, identifiable, item, unit, or entity, either real or abstract, with a well-defined role in the problem domain.
2. An object is anything to which a concept applies.

11) What is class?

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

2. When you define class, you define a blueprint for an object.

12) What is encapsulation?

Encapsulation is the practice of including in an object everything git needs to be hidden from other objects.

13) What is inheritance?

Inheritance means that one class inherits the characteristics of another class. This also called is a relationship.

14) What is polymorphism?

· Polymorphism means "having many forms".
· The ability to change form is known as polymorphism.
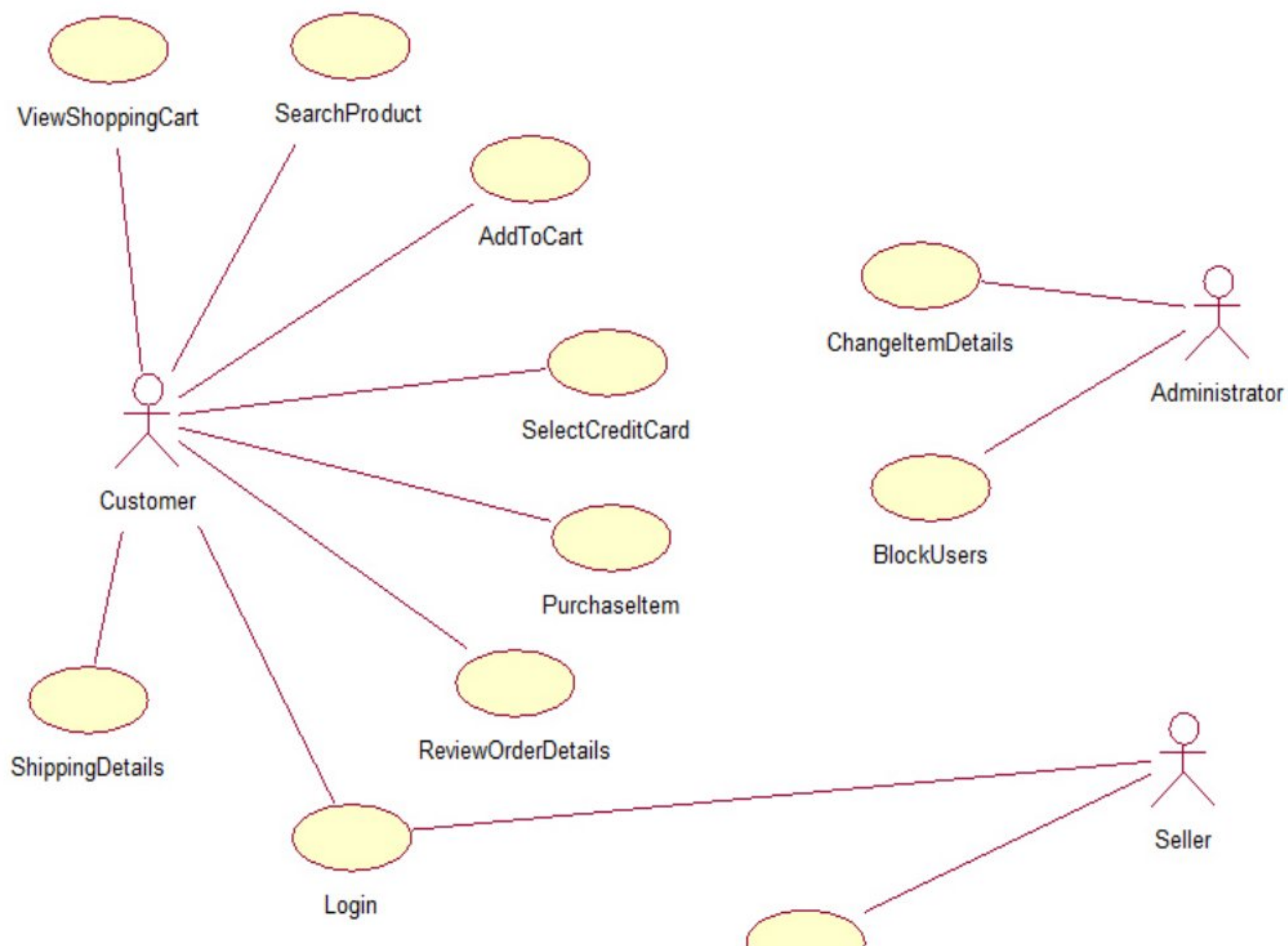· Many ways different upon the usage is called polymorphism.

15) Write phases of the spiral model.

· Planning
· Risk analysis
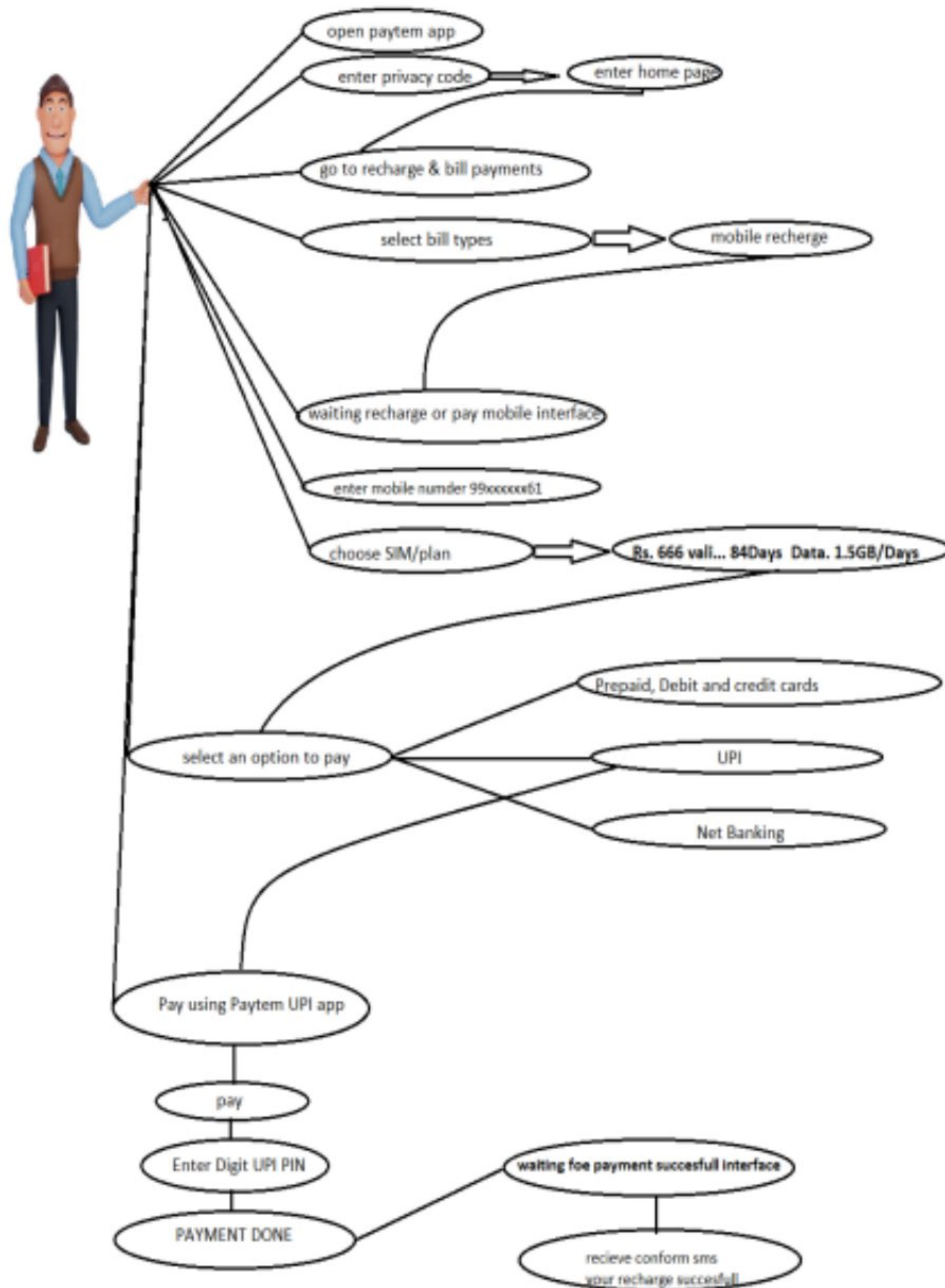· Engineering
· Customer evaluation

16) Write agile manifesto principles

- Individual interaction
- Working software
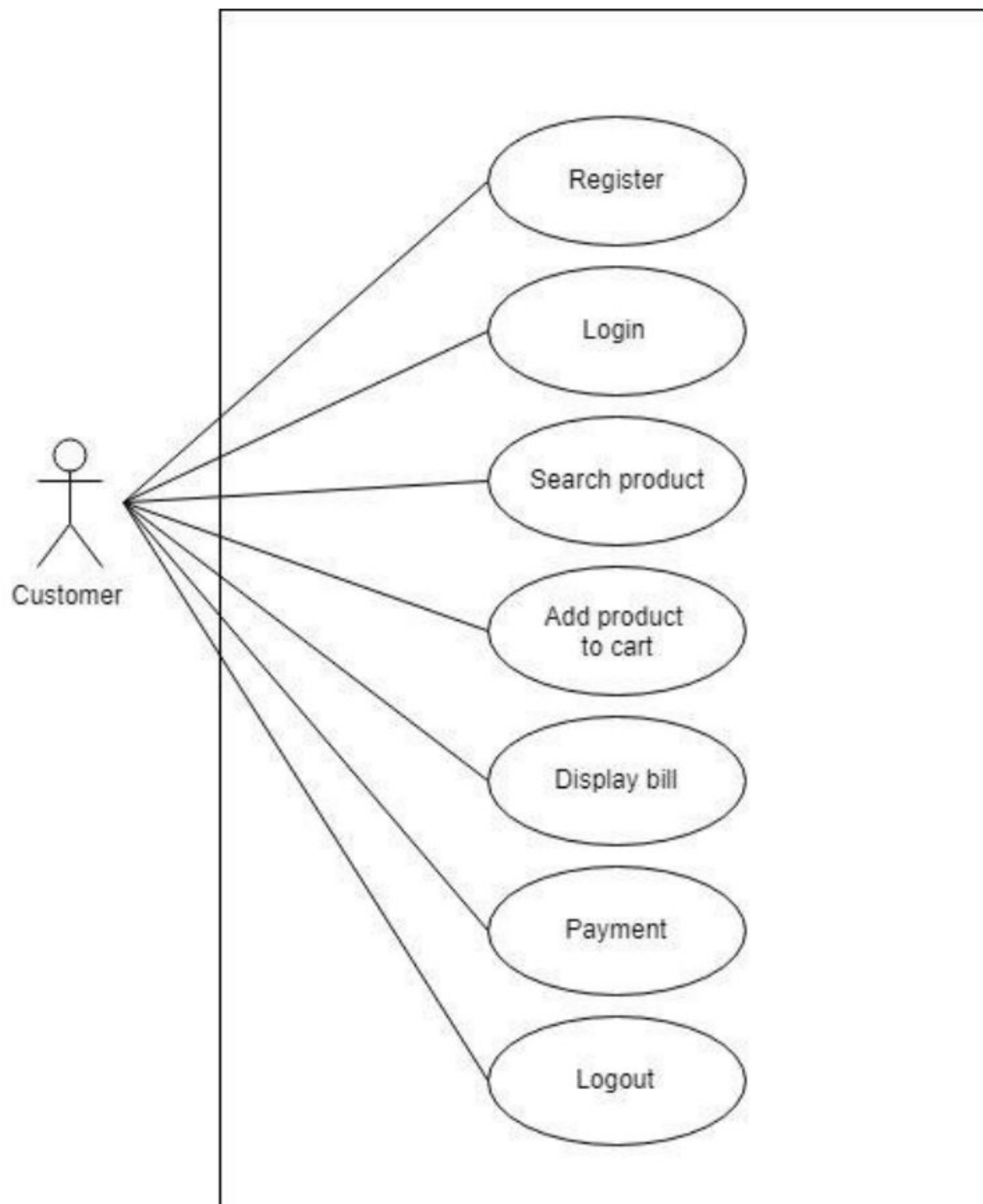- Customer collaboration
- Responding to change

17) Draw a use case for online book shopping.

18) Draw use case on online bill payment system (Paytm)

19) Draw a use case for Online shopping products using COD.

20) Draw a use case for an Online shopping product using a payment gateway.

E-COMMERCE

user logs into the online shopping platform

selects product want to purchase

adds the selected products to their shopping cart.

proceeds to the checkout process.

selected products, their quantities, and the total cost.

Actor: User (shopper)

user confirms the order and initiates the payment process.

choose 3rd party payment mod

PAYMENT GATEWAY

Instamojo is an Indian-based online payment gateway and e-commerce platform that allows businesses and individuals to set up digital stores, sell products and services, and accept online payments. It is particularly popular among small and medium-sized businesses in India due to its user-friendly interface and ease of use.

Instamjo payment gateway pay

proceed payment

payment request

BANK

authorize bank

payment approval

Payment done

confirm message your payment is succesfull