

# **Software testing assignment**

## **Module-1**

### **1. What is SDLC**

a. SDLC (software development life cycle) 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

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

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

### **3. Write the SDLC phases with basic introduction**

#### **1. Requirements collection/gathering- 3 types**

- .lack of clarity**
- .requirement confusion**
- .requirement amalgamation**

#### **2. Analysis -**

**the analysis phase defines the requirements Of the system,independent of how these requirement well be accomplished**

#### **3. Design phase -**

**The phase creates the ,design architecture Document, implementation plane, critical priority analysis, performance analysis, test plan**

#### **4. Implementation phase -**

**In the implementation phase the team builds the components either from scratch or by composition**

## **5. Testing phase -**

The testing phase is a separate phase which is performed by a different team after the implementation is completed

## **6. Maintenance -**

Corrective maintenance

Adaptive maintenance

Perfective maintenance

## **4. Explain phases of the waterfall model ?**

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

### **applications(when to use) -**

Requirement are very well documented,clear and fixed product definition is stable

### **pros(why waterfall model)**

Simple and easy to understand and use

Clearly defined stages  
**cons(why not waterfall model):**

- . High amounts of risk and uncertainty
- . Not a good model for complex and object Oriented project

## **5. Write phases of spiral model**

1. Planning
2. Risk analysis
3. Engineering
4. Customer evaluation

## **6. What is an agile methodology ?**

Agile SDLC model is a combination of iterative and incremental process model with focus on process adaptability and customer Satisfaction by rapid delivery of working software product

## **8. Explain the working methodology of the agile model and also write pros and cons.**

The project is broken into small part called sprints(1-4 weeks) teams plan,design,test and deliver working software in each sprint

**Pros of agile:**

- .gives flexibility to developers
- .little or no planning required easy to manage

**Cons of agile:**

- .not suitable for handling complex dependencies
- .more risk of sustainability
- .there is very high individual dependency

**9. What is SRS ?**

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

**10. What is oops ?**

- a.oops-(object oriented programming system)
  - .object is derived from abstract data type
  - .an object is like a black box

.internal details are hidden

## **11. Write the basic concepts of oops ?**

- 1.Object**
- 2.Class**
- 3.Encapsulation**
- 4.inheritance-** there are mainly 5 types
  - 1. Single**
  - 2. Multilevel**
  - 3. Hierarchical**
  - 4. multiple:** java does not support directly
  - 5. Hybrid:** java does not support directly
- 5. polymorphism-** there are mainly 2 types
  - 1.Overriding**
  - 2.overloading**
- 6. Abstraction**

## **12. What is object**

- a. Object is a instances of an class

**Ex:**

```
Class name object name=new  
classname();
```

### **13. What is class**

a. Class is a collection of data member(variable) and member function(method or process) with its behaviors

**Ex-**

```
Class classname  
{  
    Data member  
    Member function  
}
```

### **14. What is encapsulation**

a. encapsulation data hiding wrapping up of data in to single unit private your data member and member function

### **15. What is inheritance**

a. inheritance properties of parent class extends into child class main purpose is reusability, extendibility

**. there are mainly 5 types**

**1. Single**

**2. Multilevel**

**3. Hierarchical**

**4. multiple: java does not support directly**

**5. hybrid: java does not support directly**

## **16. What is polymorphism**

**a. Polymorphism forms ability to take one name having different or many**

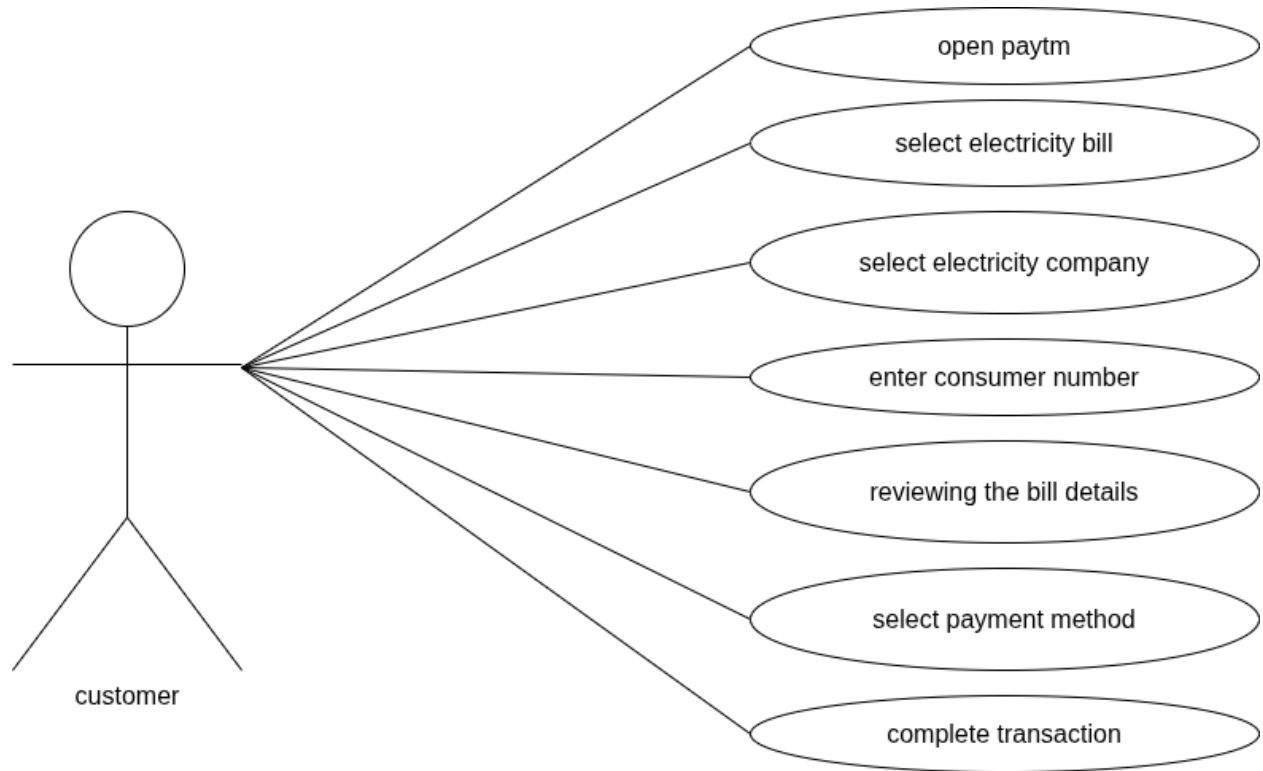
**There are mainly 2 types:**

**1. method overloading**

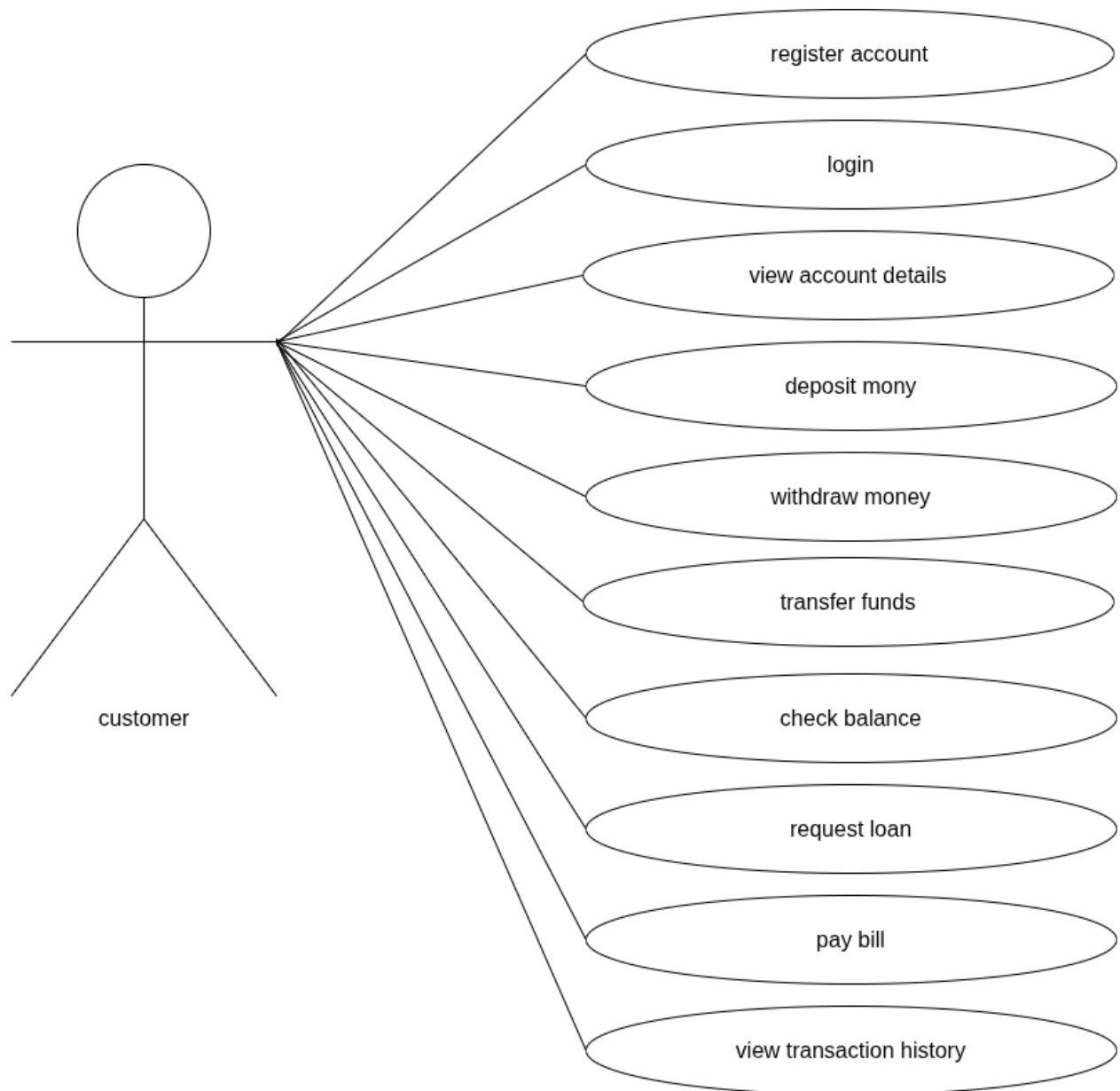
**2. method overriding**



## 17. Draw use case on online bill payment system



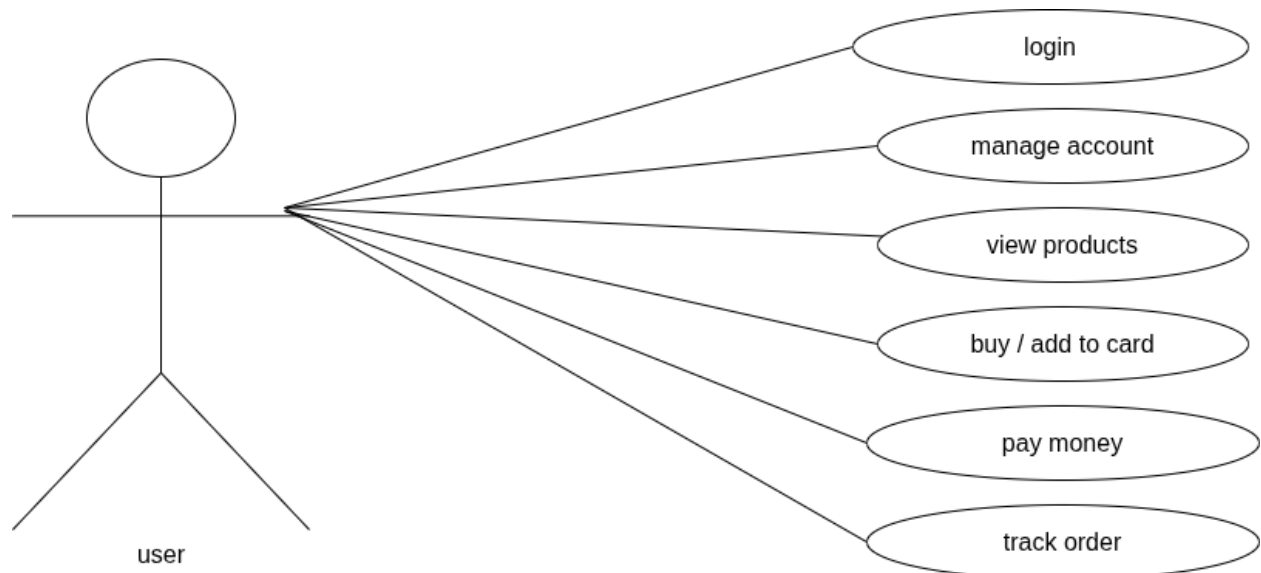
## 18. draw use case on banking system for customers



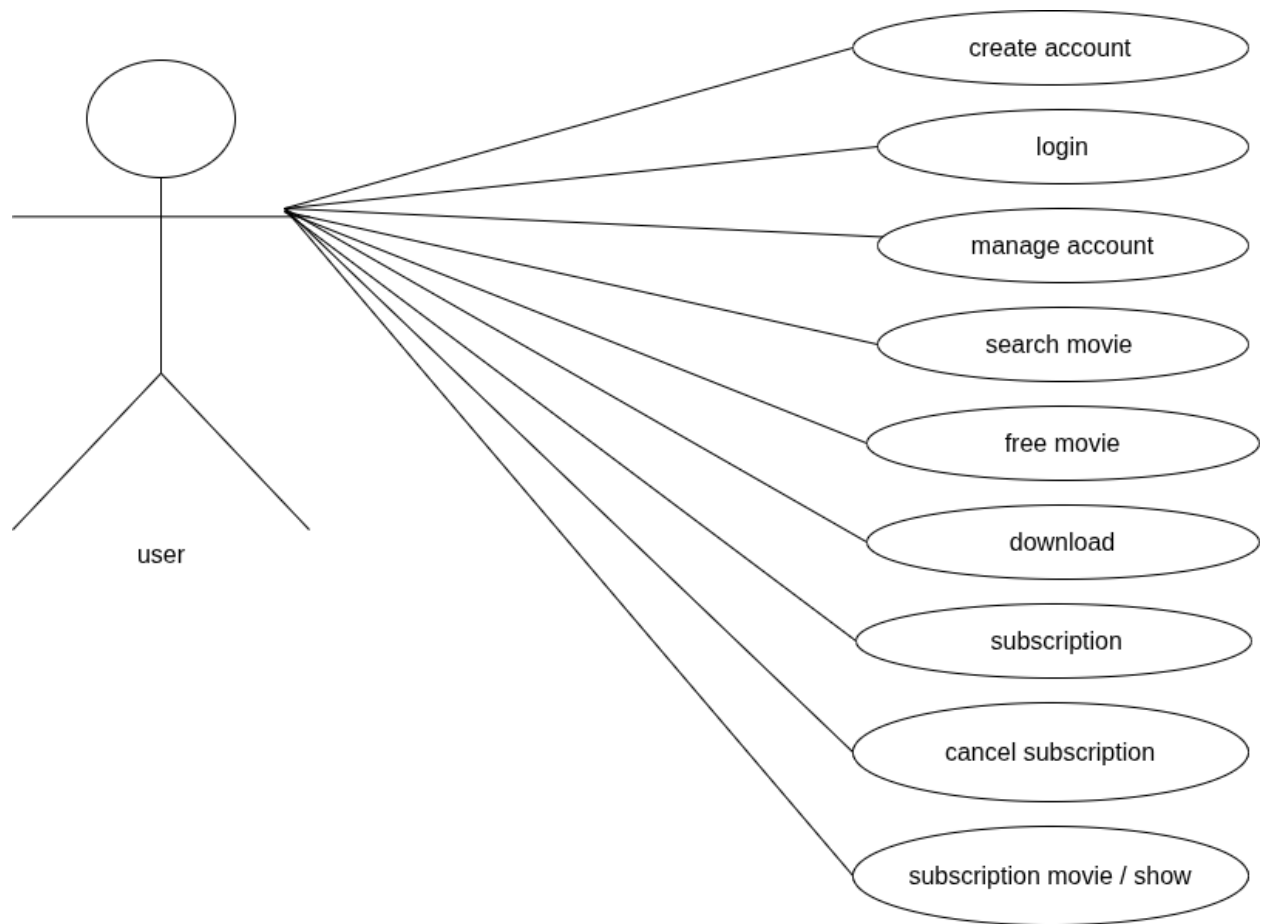
## 19. Draw use case on broadcasting system



## 20. Draw use case on E-commerce application



## 21. Draw use case on ott platform



## 22. Draw use case on online shopping product using payment gateway

