Software Testing Assignment

Module–1(Fundamental)

1. **What is SDLC ?**

- SDLC 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. There are a number of different development models.

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. Every iteration involves cross functional teams working simultaneously on various areas like planning, requirements analysis, design, coding, unit testing, and acceptance testing. At the end of the iteration a working product is displayed to the customer and important stakeholders.

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?**

- Identifying objects and assigning responsibilities to these objects, Objects communicate to other objects by sending messages, Messages are received by the methods of an object, An object is like a black box,The internal details are hidden.

6. **Write Basic Concepts of oops?**

- There are basic concepts of oops are following:

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

7. What is object?

- An "object" is anything to which a concept applies, 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.

8. What is class?

- 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 called a "is a" relationship.

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

12. Write SDLC phases with basic introduction?

- Requirements Collection/Gathering - Establish Customer Needs
- Analysis Model - And Specify the requirements
- Design Model - And Specify a Solution
- Implementation - Construct a Solution In Software
- Testing - Validate the solution against the requirements
- Maintenance - Repair defects and adapt the solution to the new requirements.

13. Explain Phases of the waterfall model ?

- There are a six stage of waterfall model, which is based on the;
- Requirements collection, Analysis, Design, Implementation, Testing, Maintenance

14. Write phases of spiral model?

- The spiral model has four phases :
  1) Planning
  2) Risk analysis
  3) Product development
  4) Customer evaluation

15. Write agile manifesto principles ?

• Individuals and interactions - in agile development, self-organization and motivation are
important, as are interactions like co-location and pair programming.
• Working software - Demo working software is considered the best means of communication
with the customer to understand their requirement, instead of just depending on documentation.
• Customer collaboration - As the requirements cannot be gathered completely in the beginning
of the project due to various factors, continuous customer interaction is very important to get proper product requirements..
• Responding to change - agile development is focused on quick responses to change and continuous development.

16. Explain working methodology of agile model and also write pros and cons?

- It is a combination iterative and increment model.
  It divides the software into small incremental builds, this build are provided in interation that means the big project are divided into small chunks.
  Each iteration last about one to four week. Each iteration involves all the team members working simultaneously on areas like planning, requirement, analysis, design, coding, testing.
  At the end of the iteration the working product is displayed to the customer or the important stake holder and it is a released in the market.
  After the release we check for the feedback of the deployed software. If any enhancement is needed in the project them it's done and it's re-released.

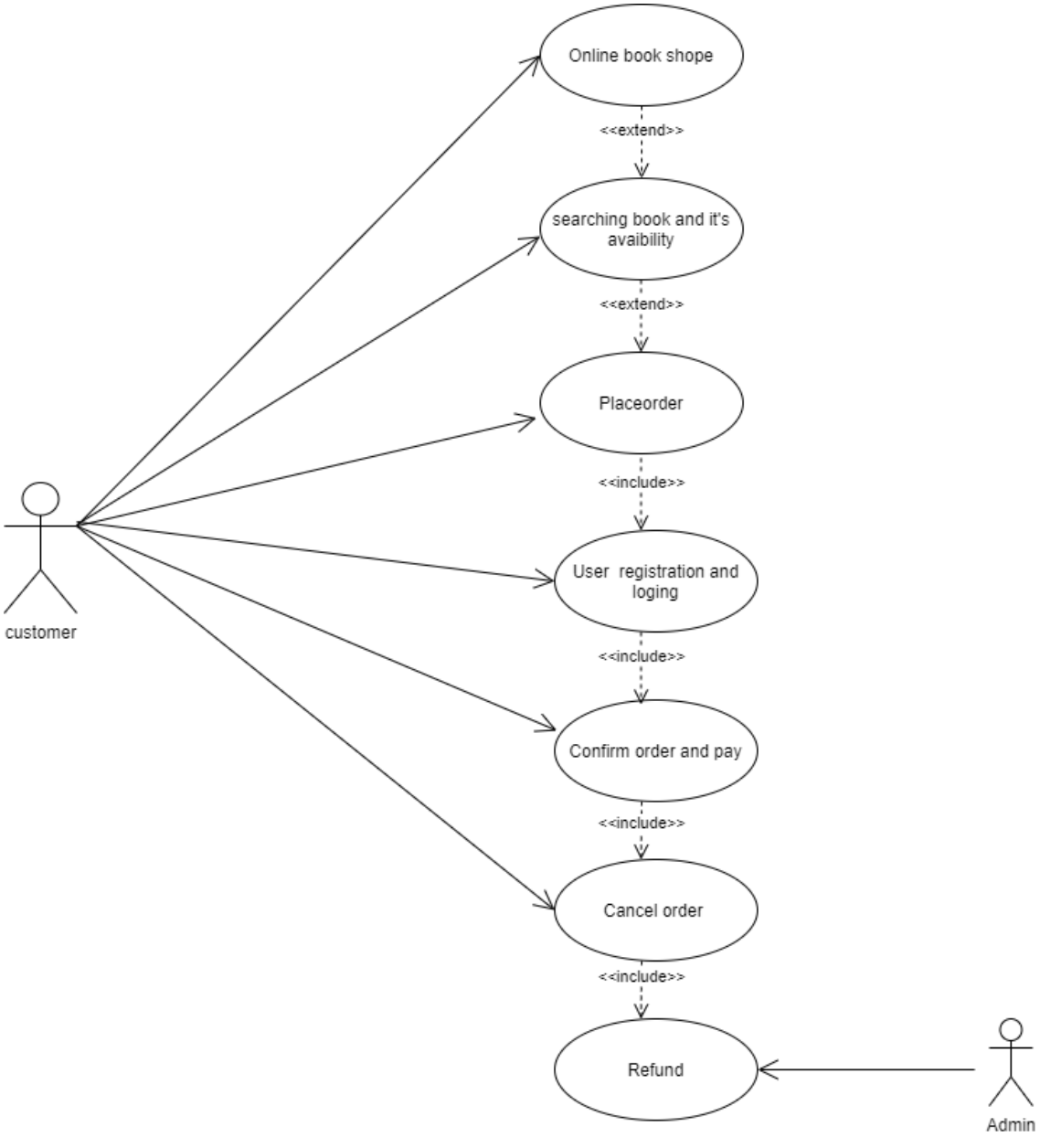
Pros :

- Frequent delivery.
- Face to face communication with the customer.
- Less time.
- Adaptability

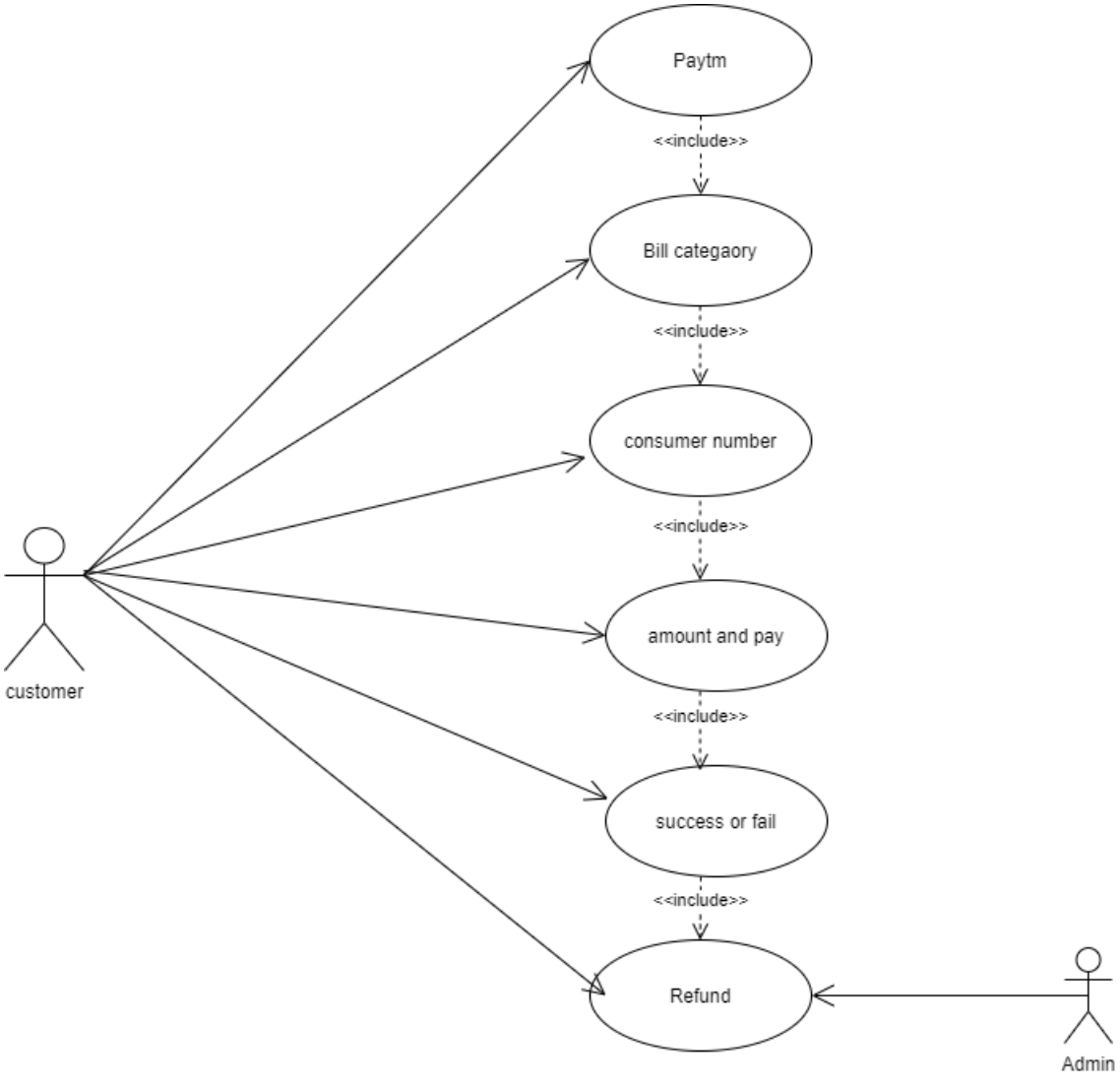
Cons:

- Less documentation.
- Maintenance problem.

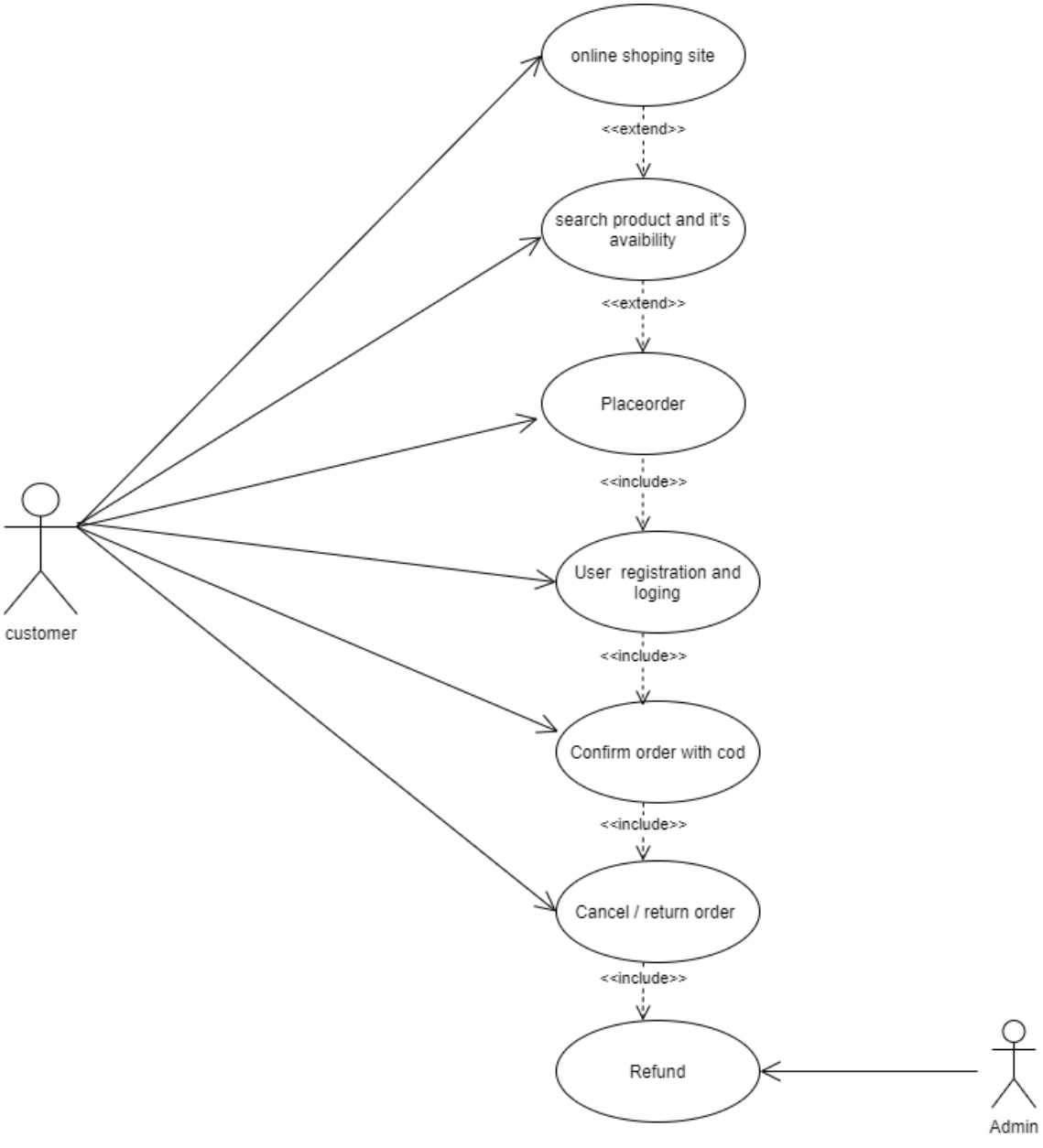
17. Draw Usecase on Online book shopping.



18. Draw Usecase on online bill payment system (paytm)



19. Draw usecase on Online shopping product using COD



20. Draw usecase on Online shopping product using payment gateway