Software Testing Assignment

1. **What is SDLC.**

➔ Software development life cycle is process used by software industry to design, develop and test software.

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 model is a combination of iterative and incremental process model with focus on the process adaptability and customer satisfaction by rapid delivery of the working software product.

4. **What is SRS.**

➔ SRS – Software Requirement Specification
➔ SRS is a complete description of the behaviour of the system to be developed.
➔ In the SRS document includes a set of use cases that describe all the users will have with the software.

5. **What is oops.**

➔ Oops means Object Oriented Programming.
➔ It is a way of writing code in organized way.

6. **Write Basic Concepts Of oops.**

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

7. **What is Object.**

➔ Object give permission to access functionality of class.

8. **What is class.**

➔ It is a collection of data member and member function.

9. **What is encapsulation.**

➔ Wrapping of data in a single unit.

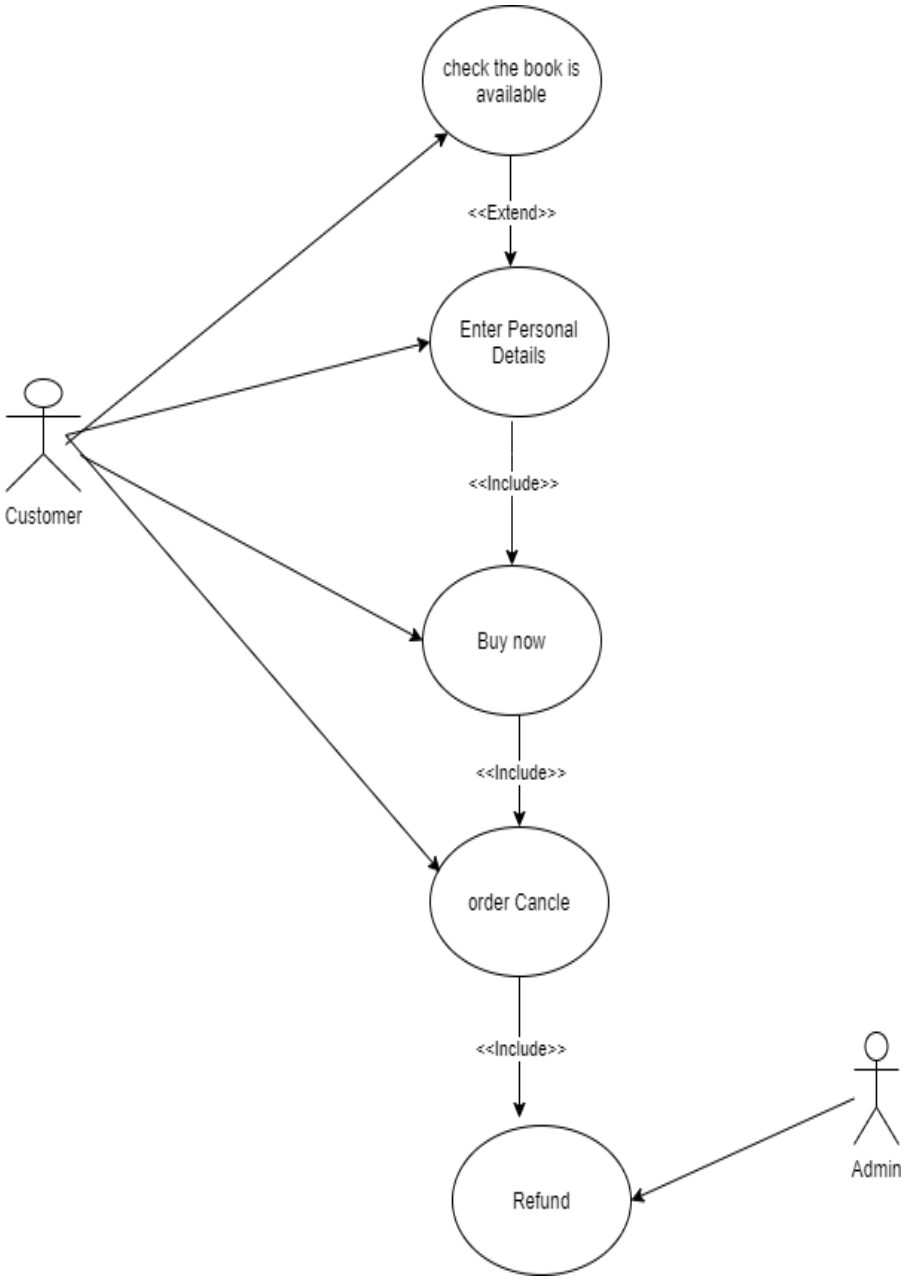
10. **What is inheritance.**

➔ Deriving an attribute of some other class.

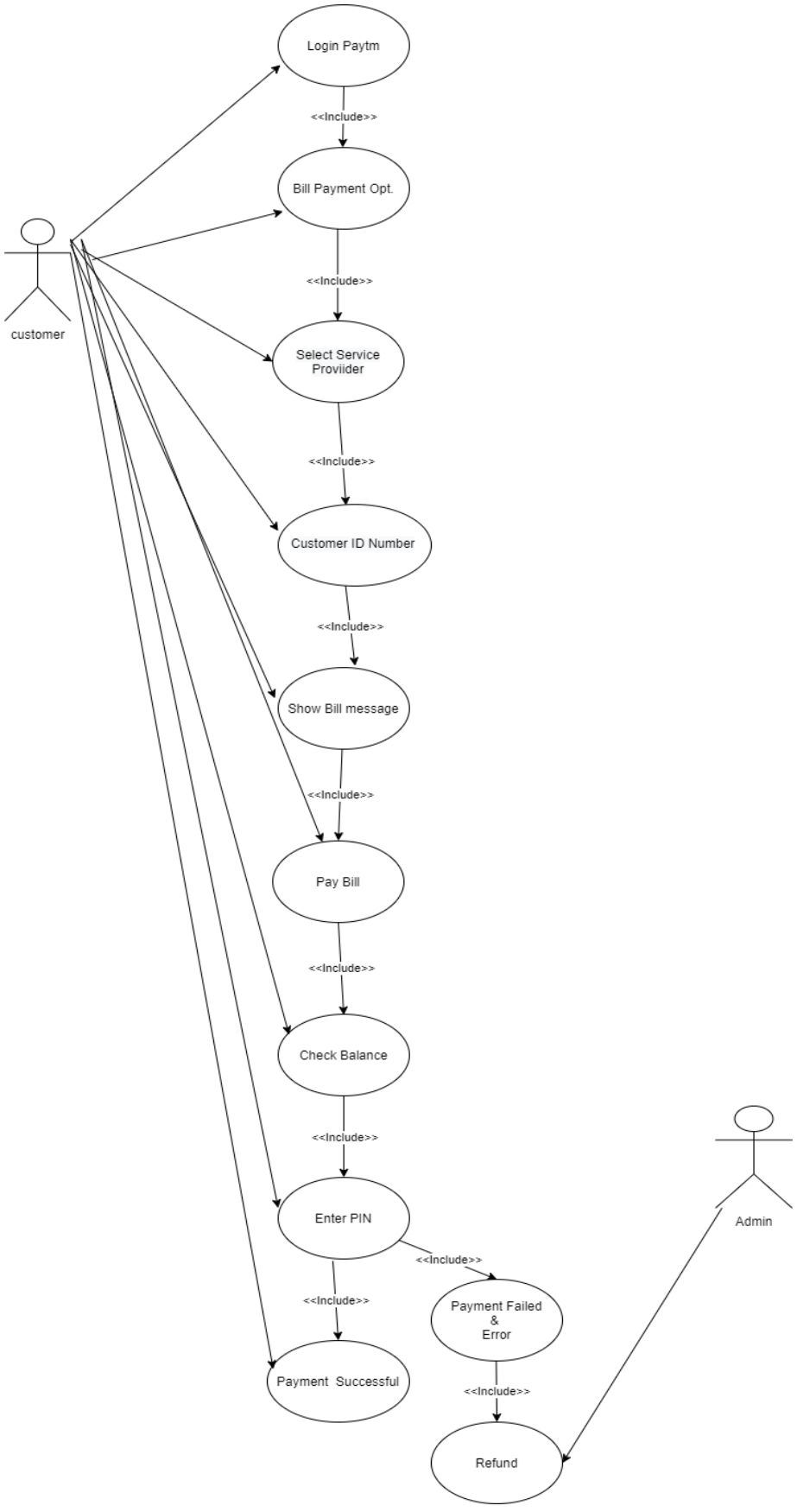
11. **What is polymorphism**.

➔ One name multiple form.

12. Draw Use case on Online book shopping.



13. Draw Use case on Online bill payment system (Paytm)



14. Write SDLC Phases with basic introduction.

➔ There are Six types of Phases.

- Requirements
- Analysis
- Design
- Implementation
- Testing
- Maintenance

Requirements Collection: Collects the Requirement from the client, as per the clients need.

Analysis: Company discusses about the Cost, time, how many employees will work inside, and benefits of the software

Design: Architecture start work on design of the software, how the software look.

Implementation: Developers write the code according to the design.

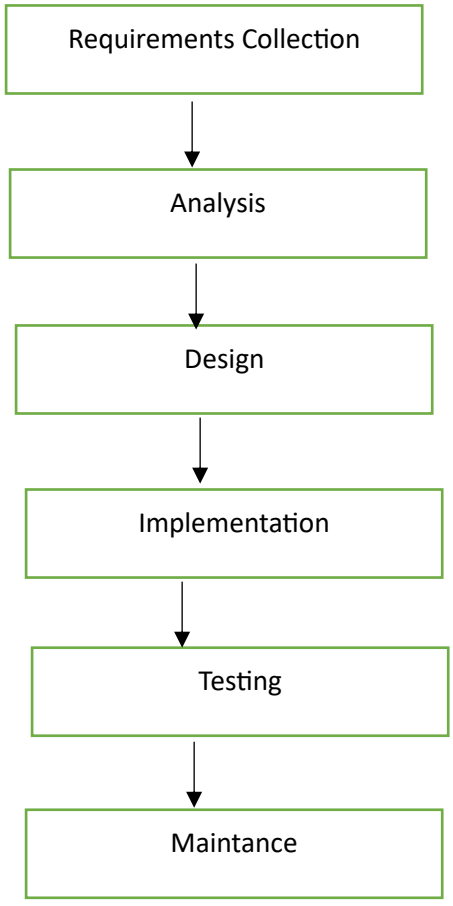
Testing: Testing team start the testing functionality and find bug or errors.

Maintenance: maintenance is the process of changing a system after it has been deployed. Client start using the system then the problem will come and need to be solved from time to time.

15. Explain Phases of the waterfall model.

➔ Waterfall model is a first model of SDLC model.

➔ The whole process of software development is divided into separate phases.



➔ This model is also known as Classical Software Cycle.
➔ In the waterfall model Requirements are very well documented, clear and fixed
➔ Product definition is stable
➔ In this model each an every phase must be completed before moving next phase.
➔ It is suitable for small project.

❖ **Advantages-**
➔ It is a very simple and easy to understand
➔ In the waterfall model phases are processed and completed one at a time.
➔ Clearly defined stages.
➔ Easy to arrange tasks.
➔ Process and results are well documented.

❖ **Disadvantages**
➔ It is suitable for small project.
➔ No working software is produced until late during the life cycle.
➔ High amounts of risk and uncertainty.
➔ Poor model for long and ongoing projects.
➔ Requirement should be fixed.

16. Write phases of spiral model.
➔ Spiral model Phases –
1. Planning
2. Risk analysis
3. Engineering
4. Customer evaluation

1. **Planning** – this phases collect the client requirements, timeliness, and project related information.
2. **Risk analysis** – In this phase risks are identified and analysed.
3. **Engineering** – these phases start coding and testing, and deploying software at the customer site.
4. **Customer evaluation** – client review the progress at the end of each cycle to evaluate if the requirements are full fill.

17. Explain working methodology of agile model and also write pros and cons.
➔ Agile Model is a combination of the iterative and incremental process model with focus on process adaptability and customer satisfaction by fast delivery of the working software product.
➔ Agile methods break the product into small incremental builds.
➔ This builds are provided in iterations.
➔ Each iteration typically lasts from about one to four weeks.
➔ Every iteration involves a team 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 client and important stakeholders.

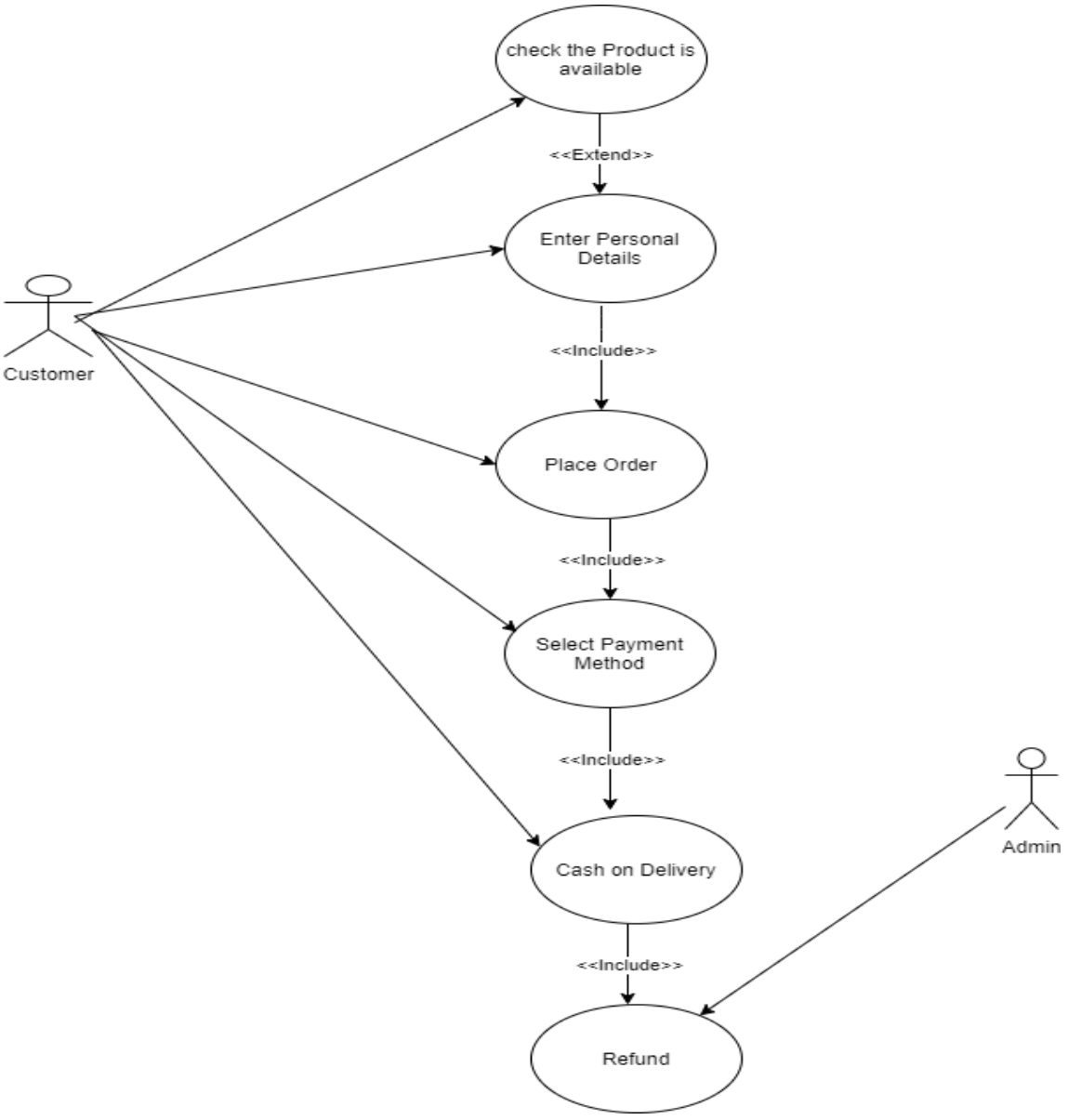
❖ **Advantages -**

➔ Is a very realistic approach to software development.
➔ Promote teamwork and cross training.
➔ Suitable for fixed or changing requirements.
➔ Good model for environments that change steadily.
➔ Easy to manage.
➔ Little or no planning required.

❖ **Disadvantages -**

➔ There is very high individual dependency, since there is minimum documentation generated.
➔ Transfer of technology to new team members may be quite challenging due to lack of documentation.

18. Draw use case on Online shopping product using COD.



19. Draw use case on Online shopping product using payment gateway.