1. **What is SDLC?**
   - Software development life cycle
   - It is a series of step or phases that provides the model of development.
   - It is the life cycle management for the piece of software or application.

2. **What is software testing?**
   - Software testing is process used to identify the correctness, completeness and quality of developed computer software.
   - Software testing is executing system in order to identify any gaps, errors or missing requirements in contrary to the actual desire or requirements.
   - Testing is a process that take place throughout the software development life cycle.

3. **What is agile methodology?**
   - Agile methodology is a combination iterative and increment model.
   - It divides the software into small incremental builds
   - This builds are provided in iteration that means the big project are divided into small chunks.
   - Each 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?**
   - Software requirements specification
   - SRS is complete description of an application which is to be developed.
   - SRS contains use case diagram that describes all the interaction user will have it with the software application.

5. **What is oops**

   Object oriented programming is way of writing the program in organized way provides security, reduce code redundancy etc.

   Objects are like a black box where data are hidden

6. **Write a basic concept of oops**
   a. Class
   b. Object
   c. Inheritance
   d. Polymorphism
      - Over ridding
      - Over loading
   e. Encapsulation
   f. Abstraction

7. What is Object?

Object gives the permission to access functionality of class

8. What is Class?

Class is a collection of data member and member function

9. What is Encapsulation?

The process wrapping the data in a single unit

To secure the data from outside world

10. What is Inheritance?

Making a class from an existing class deriving the attribute of some parent class

11. What is Polymorphism?

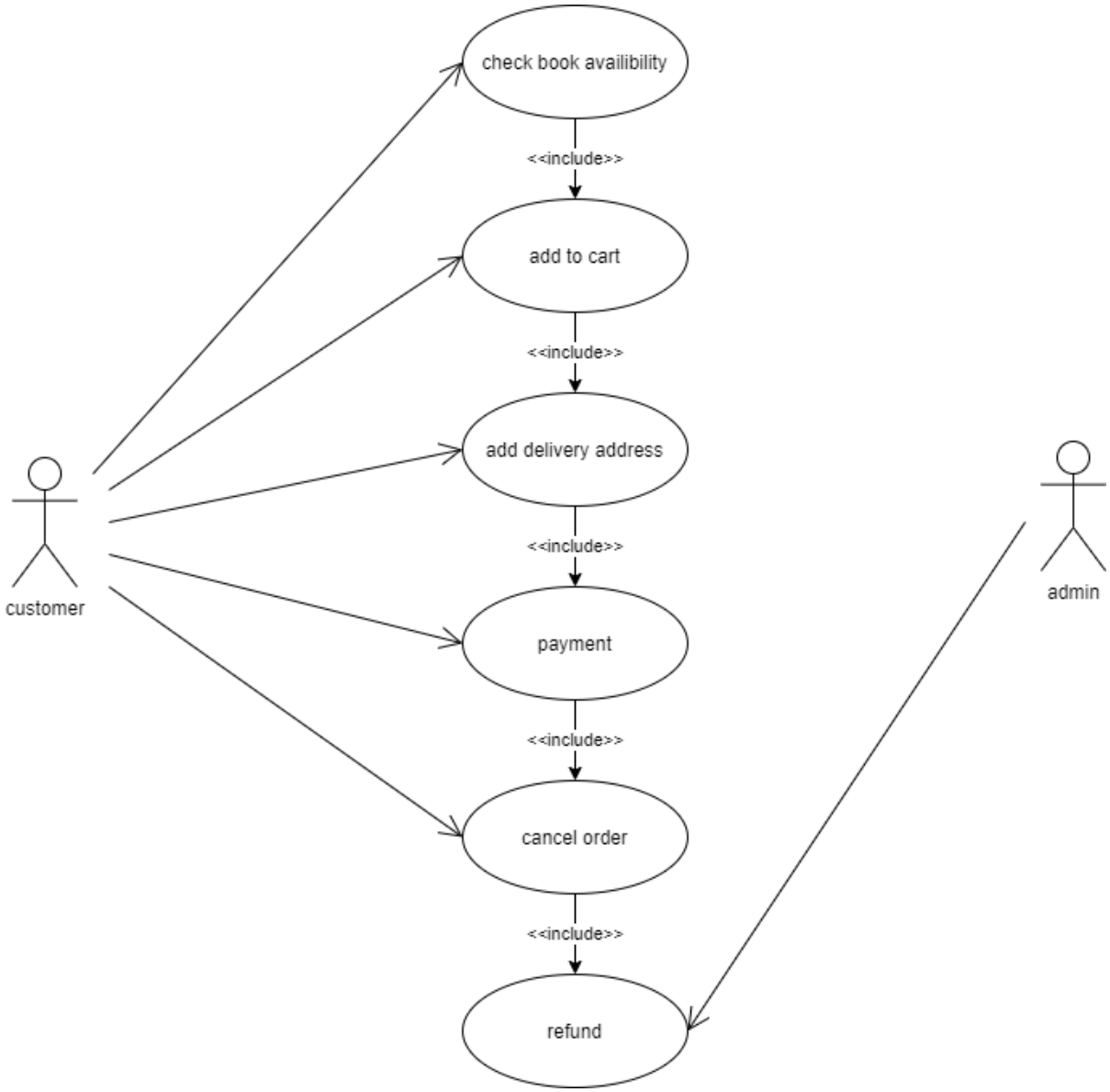
One name multiple form

Overloading – same name but different perameter

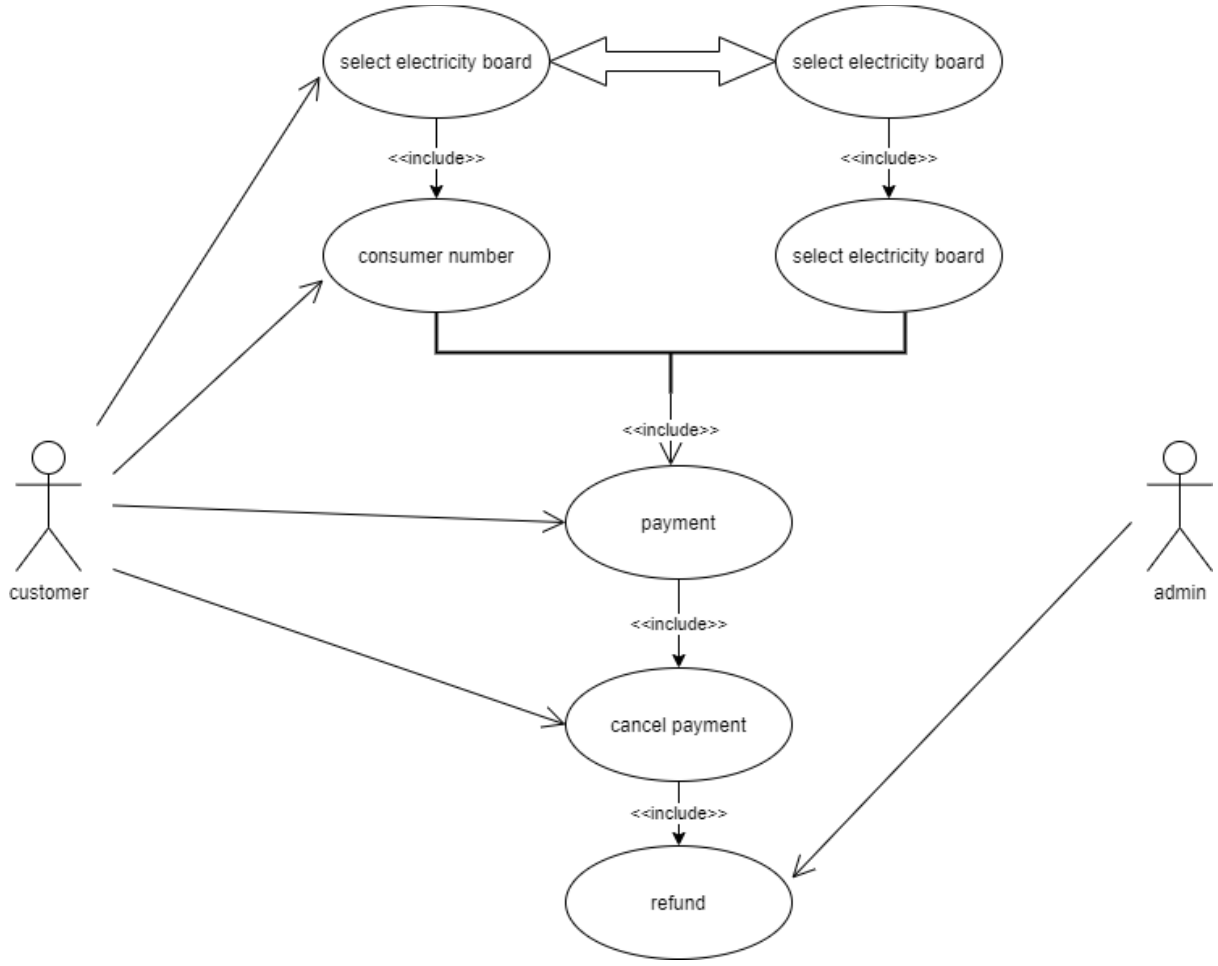
1. Functional overloading
2. Constructor overloading : same constructor name but different perameter

   Overriding : same name and same perameter

12. Draw Usecase on Online book shopping



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



14. Write SDLC phase with basic introduction

a. Requirements gathering :- what is the problem?
Customer needs
Requirement from stake holder, client, customer, CEO etc.
Improvement in current software
Eg: 1. Login, login with google, login with facebook
2. add/remove to/from cart
3. system should take less response time
4. website should responsive

b. Planning/analysis :- what we want?

1. Detail on computer programming languages and environments, machine, packages, application, architecture distributed, architecture layering, memory size, platform, data structure, interface and many other engineering details are established.
2. Risk of the project
3. Cost of the project
4. Time for completion

c. Design :- how can we get what we want?

1. Design architecture document
2. Implementation plan
3. Critical priority analysis
4. Performance analysis
5. Test plan

d. Implementation :- create what we want

1. In the implementation phase, the team builds the components either from scratch.
2. Implementation code
3. Critical error removal

e. Testing :- did we get what we want?

1. We test the build to check for defect
2. We report the defect and get it fix
3. We retest the build untill it fulfills customer requirement

f. Deployment :- project live then it will become a product

g. Maintenance :-

corrective maintenance :- identifying and repairing defects

Adaptive maintenance :- adapting the existing solution to the new platforms

Perfective maintenance :- implementing the new requirement

15. Explain phases of waterfall model

Requirements collection
Analysis
Design
Implementation
Testing
Maintenance

16. Write phases of spiral model

1. Planning
   Determination of objective, alternatives and construms
2. Risk analysis
   Analysis of alternatives and identification resolution of risk
3. Risk
   Something that delay project or increase its lost
4. Engineering
   Development of the next level product
5. Customer evaluation
   Assessment of the results of engineering

17. Write agile manifesto principles

- Customer satisfaction through early and continuous software delivery
- Accommodate changing requirements throughout the development process
- Frequent delivery of working software
- Collaboration between the business stakeholder and developers throughout the project
- Support, trust and motivate the people involved
- Enable face to face interaction
- Working software is the primary measure of progress
- Agile processes to support a consistent development pace
- Attention to technical detail and design enhance agile
- Self organizing teams encourage great architectures, requirements and designs
- Regular reflections on how to become more effective

18. 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 iteration that means the big projects are divided into small chunks
Each iteration last about two to four weeks
Each iteration involves all the team members working simultaneously on areas like planning, requirement analysis, design, coding, unit testing and acceptance testing
At the end of the iteration the working product is displayed to the customer or the important stake holder and it is released in the market
After the release we check for the feedback of the developed software
If any enhancement is needed in the project then its done and its re-released

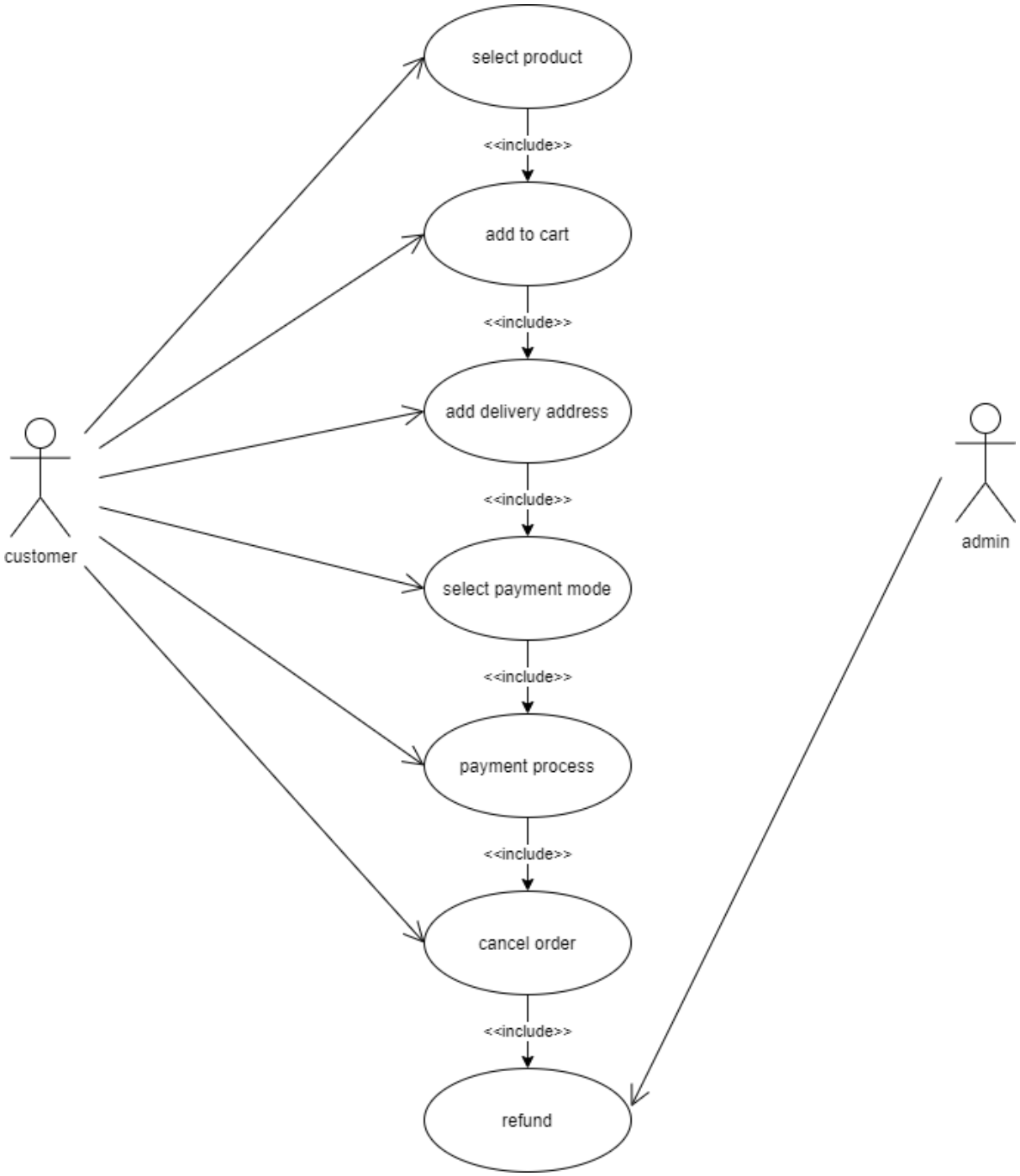
Pros of agile method:

1. Frequent delivery
2. Face to face communication with the customer
3. Less time
4. Adaptability

Cons of agile method:

1. Less documentation
2. Maintenance problem

19. Draw usecase on Online shopping product using COD.



20. Draw usecase on Online shopping product using payment gateway.