ASSIGNMENT:1(MODULE 1)

1>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 for planning, implementation, testing, documentation, deployment, and ongoing maintenance and support.

2> What is software testing?

- Testing is the process of evaluating a system or its component(s) with the intent to find that whether it satisfies the specified requirements or not.
- Software Testing is a process used to identify the correctness, completeness, and quality of developed computer software.

3> What is agile methodology?

- The Agile methodology is a project management approach that involves breaking the project into phases and emphasizes continuous collaboration and improvement.

4> What is SRS

- SRS is stands for Software Requirement Specification.
- 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

- OOP is an object-oriented programming technique that combines data and instructions for processing that data into an object that can be used within the program.

6> Write Basic Concepts of oops

- Class
- Objects
- Data Abstraction
- Encapsulation
- Inheritance
- Polymorphism
- Dynamic Binding
- Message Passing

7>what is object

- It is a basic unit of Object-Oriented Programming and represents the real-life entities
- An Object is an instance of a Class.
- An object represents an individual, identifiable item, unit, or entity, either real or abstract, with a well-defined role in the problem domain.

8> What is class

- Class: An object is a particular instance of a class which has actual existence and there can be many objects (or instances) for a class.
- When you define a class, you define a blueprint for an object.

9> What is encapsulation

- 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.
- Encapsulation in Java is the process of wrapping up of data (properties) and behavior (methods) of an object into a single unit; and the unit here is a Class (or interface).

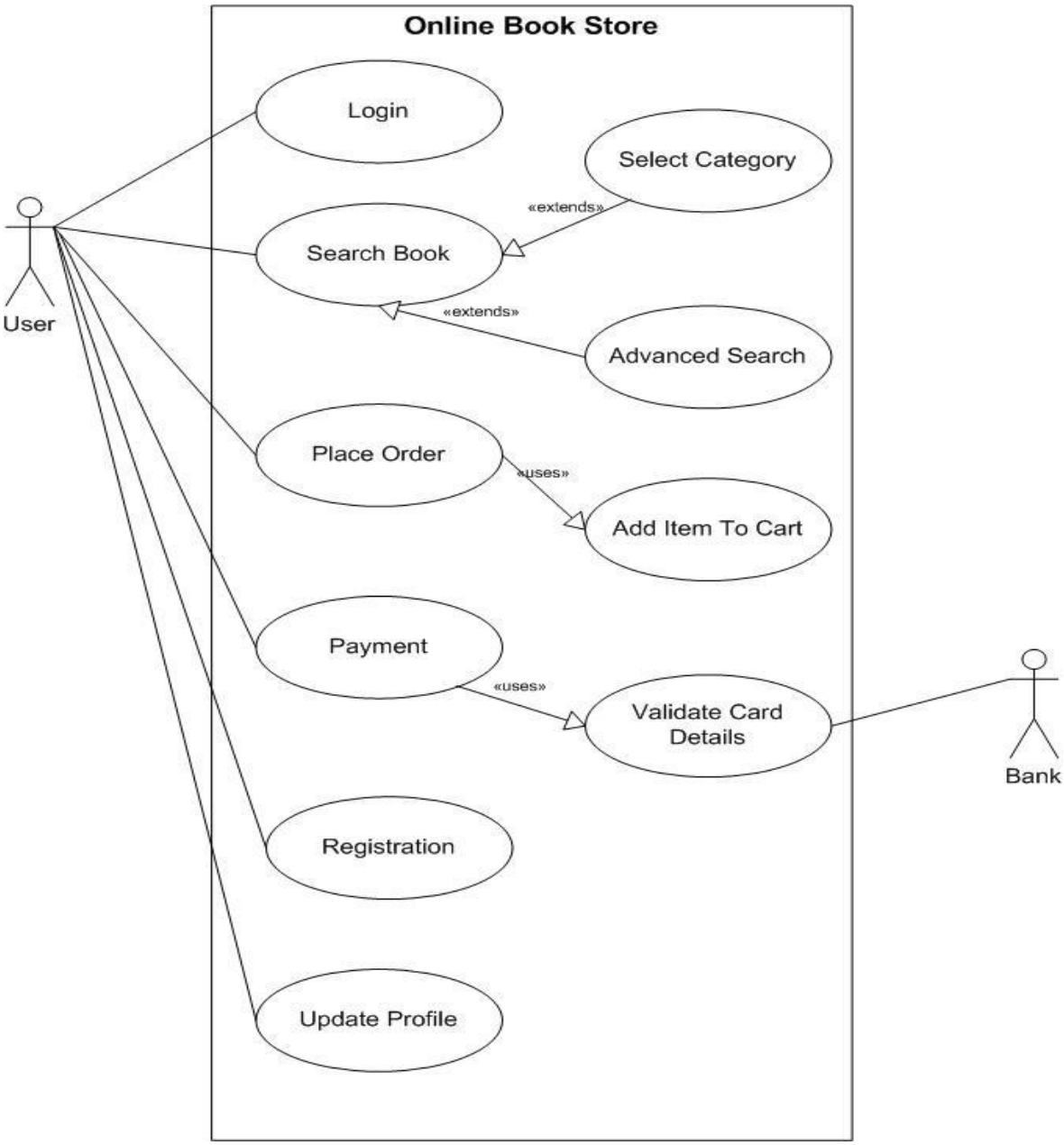
10> What is inheritance

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

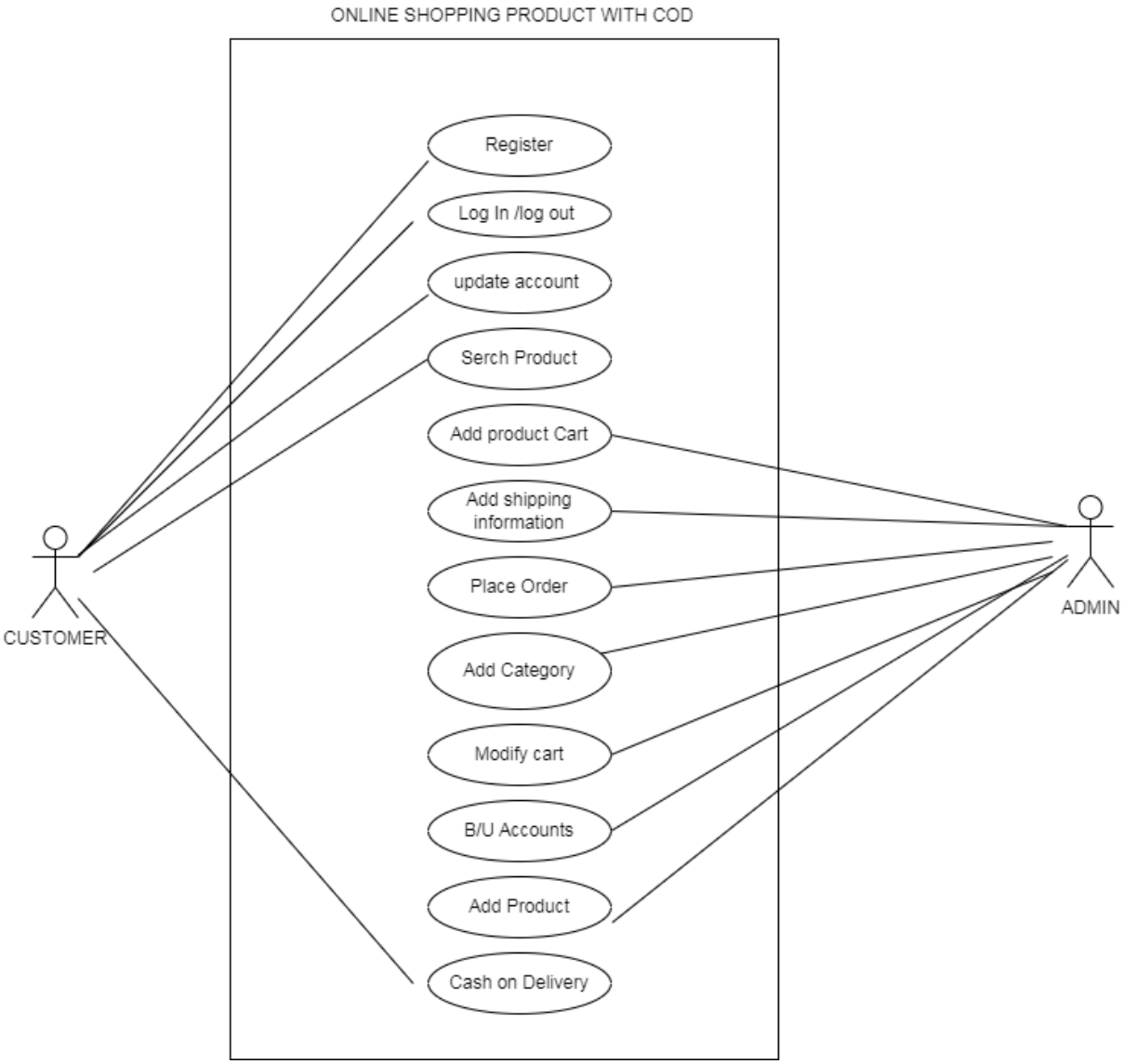
11> □ What is polymorphism

- Polymorphism: Polymorphism means “having many forms”
- Poly refers to many. That is a single function or an operator functioning in many ways different upon the usage is called polymorphism

12> Draw Usecase on Online book shopping.



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



14> Write SDLC phases with basic introduction

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

15> Explain Phases of the waterfall model

- Requirements: All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.
- Analysis:
- Design:
- Implementation
- Testing
- Maintenace

16> Write phases of spiral model

- Determine objectives and find alternate solution
- Risk Analysis and Resolving
- Develop test
- Review and Planning of the next phase

17> Write agile manifesto principles

- satisfy customers
- changing requirements
- Frequent Delivery
- Communicate regularly
- support team members
- Face to face communication
- Measure work progress
- Devlopment process
- Good design
- Measure progress
- Continue seeking result
- Reflect and adjust regularly

18> Explain working methodology of agile model and also write pros and cons.

- Agile Methods break the product into small incremental builds.
- These builds are provided in iterations.
- Each iteration typically lasts from about one to three weeks.
- 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.

Agile pros:

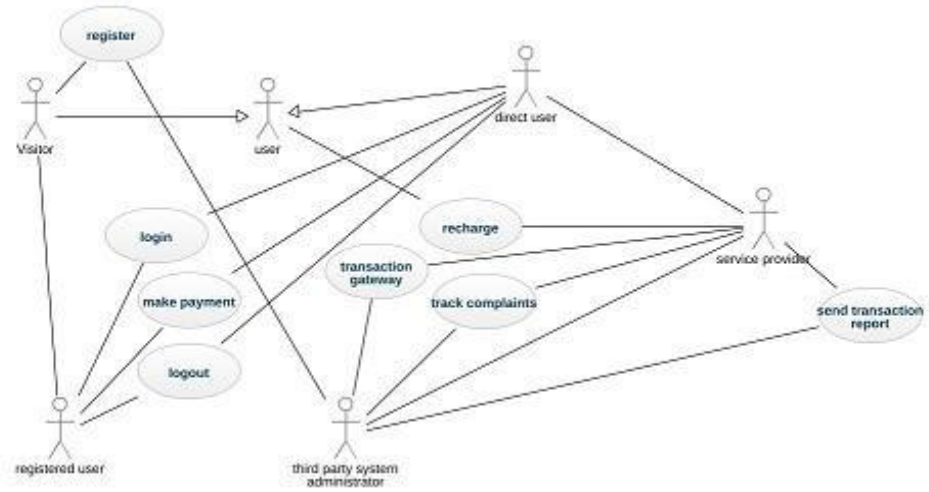
- Is a very realistic approach to software development
- Promotes teamwork and cross training.
- Functionality can be developed rapidly and demonstrated.
- Resource requirements are minimum.

- Suitable for fixed or changing requirements Delivers early partial working solutions.
- Good model for environments that change steadily. Minimal rules, documentation easily employed.
- Enables concurrent development and delivery within an overall planned context.
- Little or no planning required Easy to manage Gives flexibility to developers

Agile cons:

- Not suitable for handling complex dependencies.
- More risk of sustainability, maintainability and extensibility.
- An overall plan, an agile leader and agile PM practice is a must without which it will not work.
- Strict delivery management dictates the scope, functionality to be delivered, and adjustments to meet the deadlines.
- Depends heavily on customer interaction, so if customer is not clear, team can be driven in the wrong direction.
- 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.

19> Draw usecase on Online shopping product using COD.



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

Use Case Diagram for Online Shopping Website