Software Testing Assignment (Module-1)

- **what is SDLC?**

  SDLC is a software development life cycle. It's a process used to develop a project.SDLC is a structure imposed on the development of a software product that defines the process for planning, developing, testing, documentation, deployment and ongoing maintenance and support.

- **what is software testing?**

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

- **what is agile methodology?**

  The Agile methodology is a way to manage a project by breaking it up into several phases. Once the work begins, teams cycle through a process of planning, executing, and evaluating. Continuous collaboration is vital, both with team members and project stakeholders.

- **what is srs?**

  [software requirements specification(SRS)]is a complete description of the behavior of the system to be developed. there are 3 types of requirements.

  1. **customer requirements**
  2. **functional requirements**
  3. **Non-functional requirements**

- **what is oops?**

  Identifying objects and assigning responsibilities to these objects.

- **Write Basic Concepts of oops ?**

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

- **What is an object?**

  An object represents an individual, identifiable item, unit, or entity, either real or abstract, with well- a defined role in the problem domain.

- **What is the class?**

  A class is a user-defined blueprint or prototype from which objects are created. It represents the set of properties or methods that are common to all objects of one type. When you define a class, you define a blueprint for an object.

- **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.

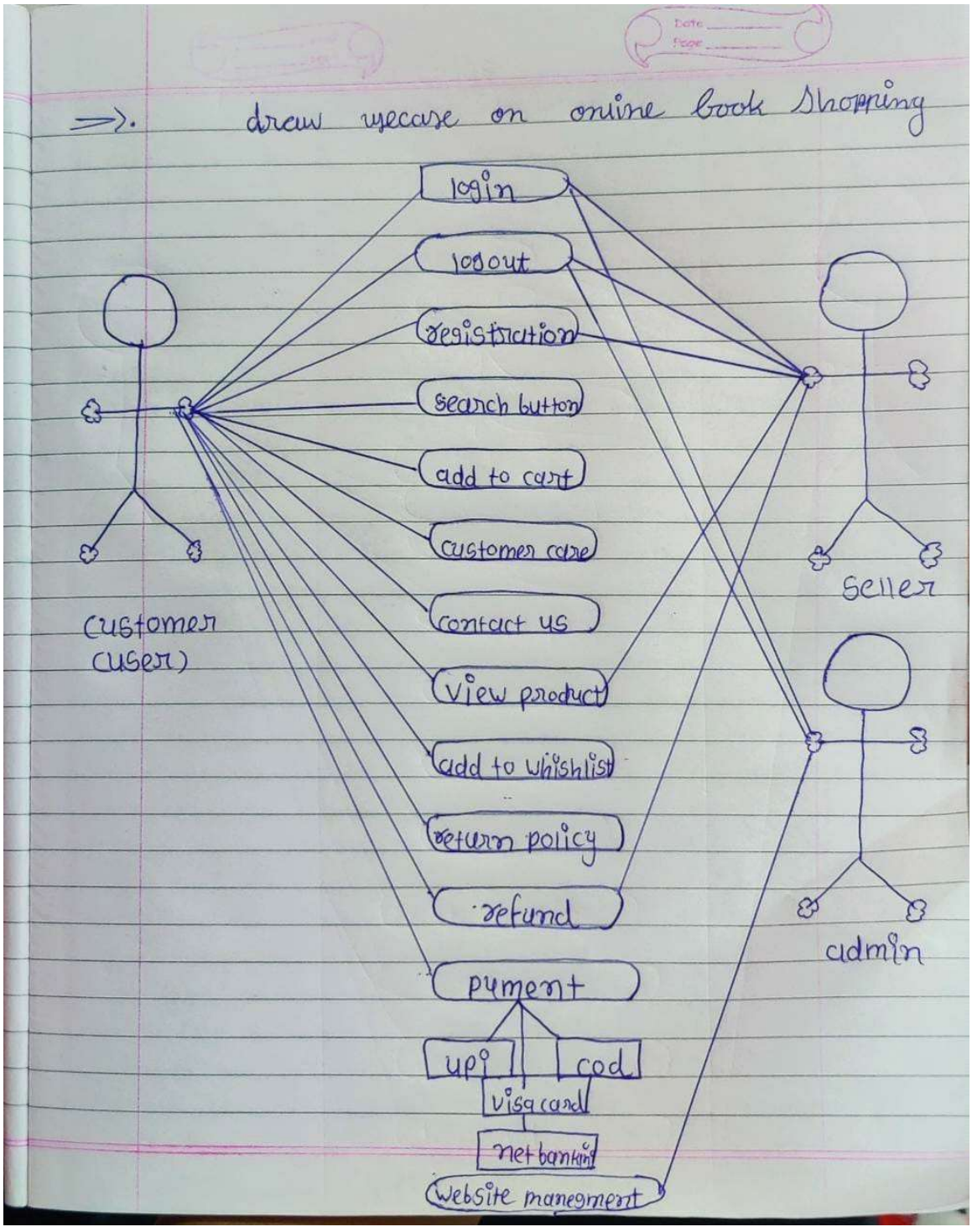
- **What is inheritance?**

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

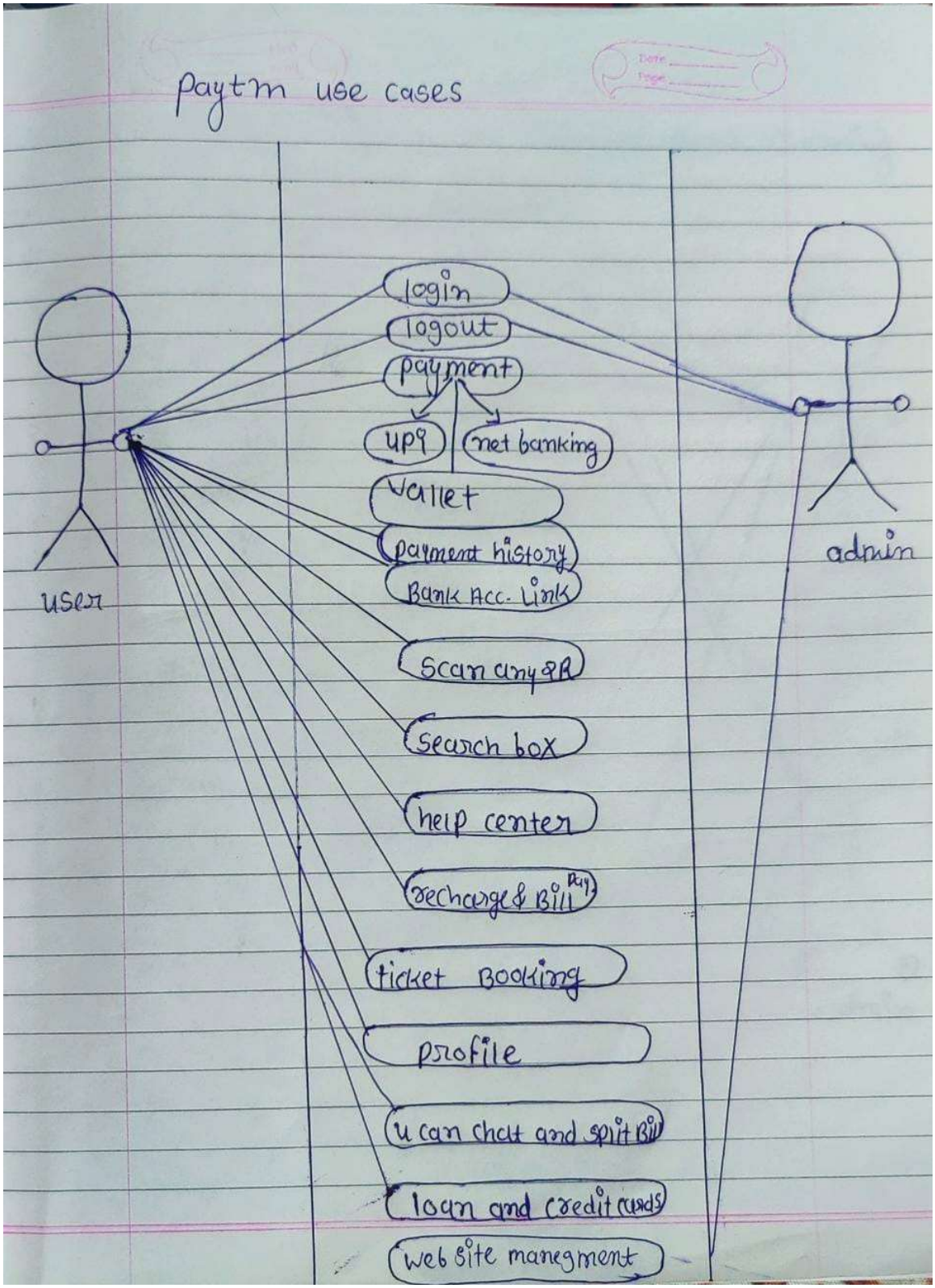
- **What is polymorphism?**

  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.

  - **Draw Usecase on Online book shopping.**



- **Draw Usecase on online bill payment system (paytm)**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- **Write SDLC phases with basic introduction.**

  1. requirements gathering: establish coustemer needs

  2. analysis: model and specify the requirement "what"

  3. design: model and specify a solution - why

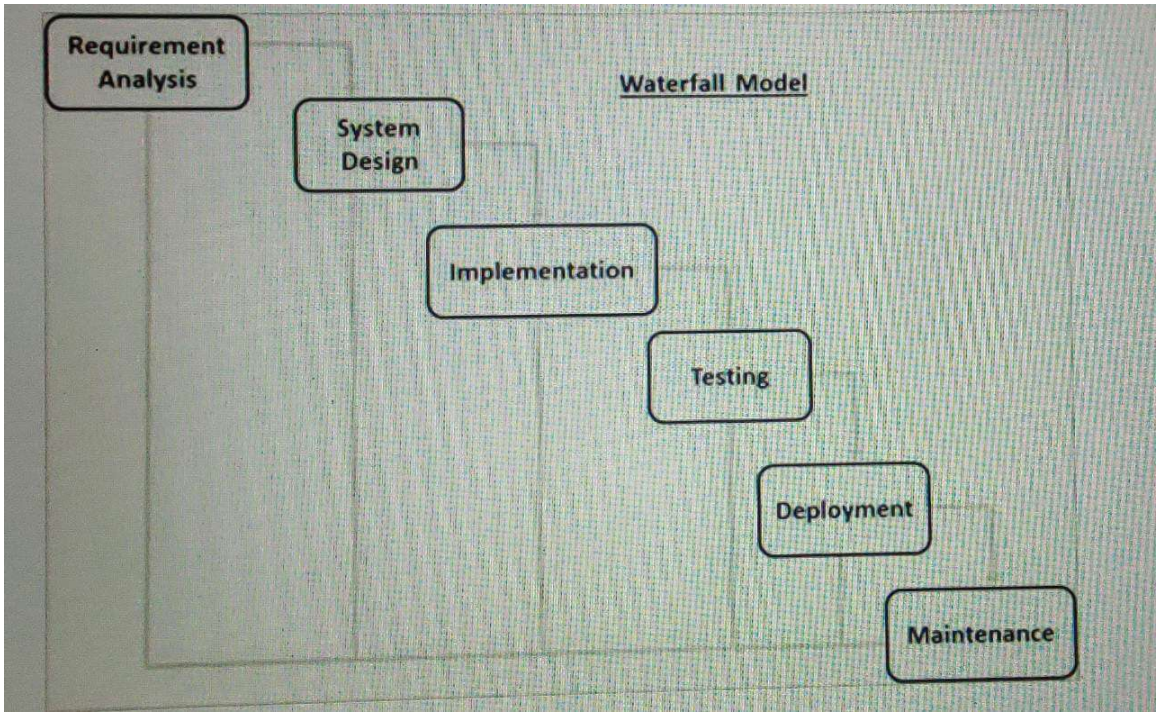
  4. implementation: construct a solution in software

  5. testing: validate the solution against the requirement

  6. maintenance: repair defects and adapt the solution to the new requirements.

- **Explain Phases of the waterfall model**.

  The waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure the success of the project.



- **Write phases of spiral model.**

1.Determine objectives and find alternate solutions: – This phase includes requirement gathering and analysis. Based on the requirements, objectives are defined and different alternate solutions are proposed.

2.Risk Analysis and resolving: – In this quadrant, all the proposed solutions are analyzed and any potential risk is identified, analyzed, and resolved.

3.Develop and test : This phase includes the actual implementation of the different features. All the implemented features are then verified with thorough testing.

4.Review and planning of the next phase: – In this phase, the software is evaluated by the customer. It also includes risk identification and monitoring like cost overrun or schedule slippage and after that planning of the next phase is started.

- **Write agile manifesto principles.**

1. Satisfy Customers Through Early & Continuous Delivery...

2. Welcome Changing Requirements Even Late in the Project...

3. Deliver Value Frequently...

4. Break the Silos of Your Project...

5. Build Projects Around Motivated Individuals...

6. The Most Effective Way of Communication is Face-to-face...

7. Working Software is the Primary Measure of Progress...

8. Maintain a Sustainable Working Pace...

9. Continuous Excellence Enhances Agility...

10. Simplicity is Essential...

11. Self-organizing Teams Generate Most Value...

12. Regularly Reflect and Adjust Your Way of Work to Boost

Effectiveness...

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

working methodology of agile: Agile SDLC model is a combination of iterative and incremental process models with a focus on process adaptability and customer satisfaction by rapid delivery of the workings of two products...

.Agile Methods break the product into small incremental builds.

.These builds provide diniterations.

.Each iteration typically lasts from about one to three weeks.

.Every iteration involves cross-functional teams working simultaneously on various are as planning, requirement analysis, design, coding, unit testing, and acceptance testing.

.At the end of the iteration a working product is displayed to the customer and important take holders.

1.Pros of agile methodology

1.Timely delivery.

2.Adaptability.

3.Ease of collaboration.

4. Increased performance improvement.

5.Transparency.

6.Continuous improvement.

7. Higher profits.

8.Less preparatory work.

2.Cons of agile methodology

1.Transfer difficulties.

2.Variable goals.

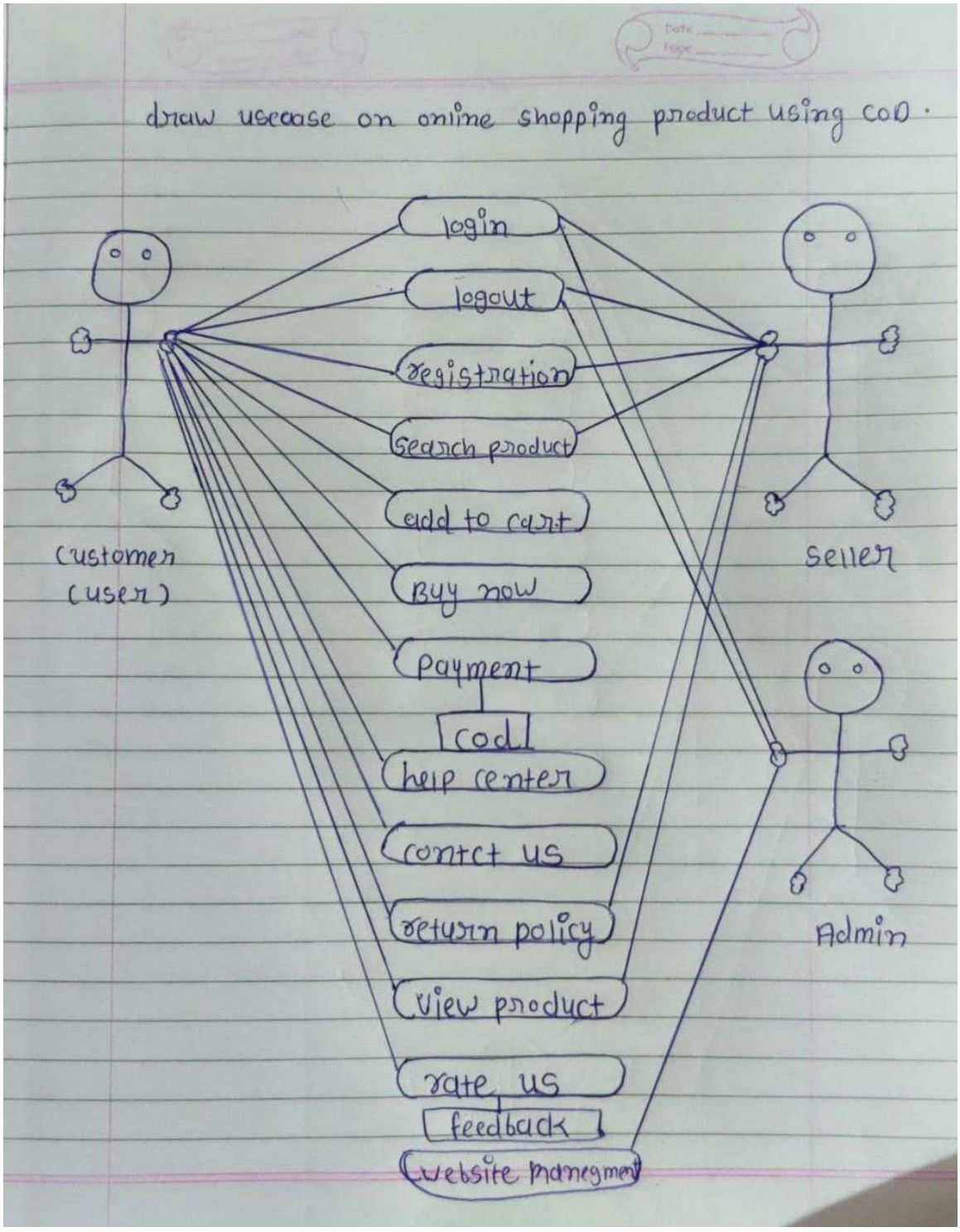
3.Lack of documentation.

4.Less documented improvement.

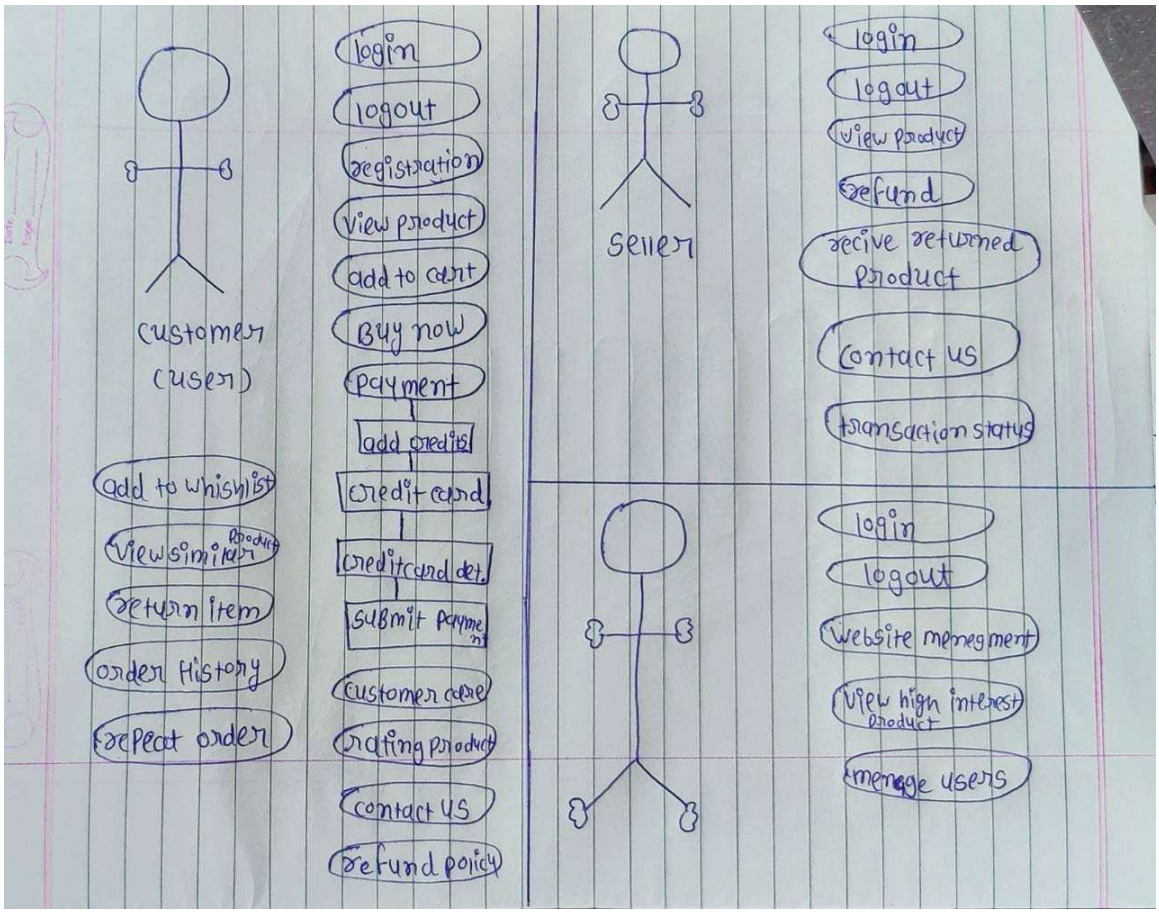
5. Goal focus shifting.

6.Less predictability.

- **Draw usecase on Online shopping product using COD.**



- **Draw usecase on Online shopping product using payment gateway.**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