

POORNIMA COLLEGE OF ENGINEERING , JAIPUR

Evaluation Report

Name of the Laboratory.....Electronics Engineering.....Lab.....

To be filled by the student

S.No.	Name of the experiment	Pg. No.	Date of Allotment	Date of Performance	Attendance (2)	Record* (3)	Performance** (5)	Total (10)	Signature of Faculty With Date
1.	Use case diagrams	3-S	20/9/23	20/9/23					
2.	Class diagrams	6	20/9/23	20/9/23					
3.	State Chart diagrams	7	29/9/23	29/9/23					
4.	Activity diagrams	8	29/9/23	29/9/23					
5.	Sequence diagrams	9-10	29/9/23	29/9/23					
6.									
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16.									
17.									
18.									
19.									
20.									

* Preparation & Lab record

** Overall Quality of Performance, Knowledge about application of experiment, Technical details of equipments, Process & Theory involved in practical & Viva-voce

Max. Marks : Marks Obtained

Dos

1. Enter the lab on time and leave at proper time.
2. Wait for the previous class to leave before the next class enters.
3. Keep the bags outside in the respective racks.
4. Utilize lab hours in the respective racks.
5. Turn off MIC before leaving lab unless a member of lab staff has specifically told you not to do so.
6. Leave the labs at least as nice as you found them.
7. If you notice a problem with a piece of equipment or room in general please report it to lab staff immediately.
Do not attempt to fix problem yourself.

Don'ts

1. Don't abuse equipments.
2. Do not adjust heat. If you feel temperature is not properly set, inform lab staff, we will attempt to maintain a balance that is healthy for people & MIC.
3. Don't attempt to reboot a computer.
4. Do not remove any software without permission.
5. Do not remove printers & MIC from network.
6. Do not monopolize equipment.
7. Don't use internet, internet chat.
8. Do not download any files.
9. No games are allowed in lab session.
10. No hardware including USB drives can be connected or disconnected in lab without prior permission.
11. No food or drink is allowed in lab.
12. Don't bring any external material in lab.
13. Don't bring mobile phones in lab.

Institute Vision & Mission

Vision

To create knowledge-based society with scientific temper, team spirit and dignity of labor to face global competitive challenges.

Mission

To evolve & develop skill-based systems for effective delivery of knowledge so as to equip young professionals with dedication & commitment to excel in all spheres of life.

Department Vision & Mission

Vision

Evolve as a center of excellence with wider recognition & to adapt rapid innovation in Computer Engineering.

Mission

- To provide a learning-centred environment that will enable students & faculty members to achieve their goals empowering them to compete globally for the most desirable careers in academic & industry.
- To contribute significantly to research and discovery of new areas of knowledge and methods in rapid development field of Computer Engineering.
- To support society through participation & transfer of advance technology from one sector to another.

Experiment -01

UML → A UML diagram is a diagram based on the UML (Unified modeling language) with the purpose of visually representing a system along with its main actors, role action, artifacts to better understand information about the system.

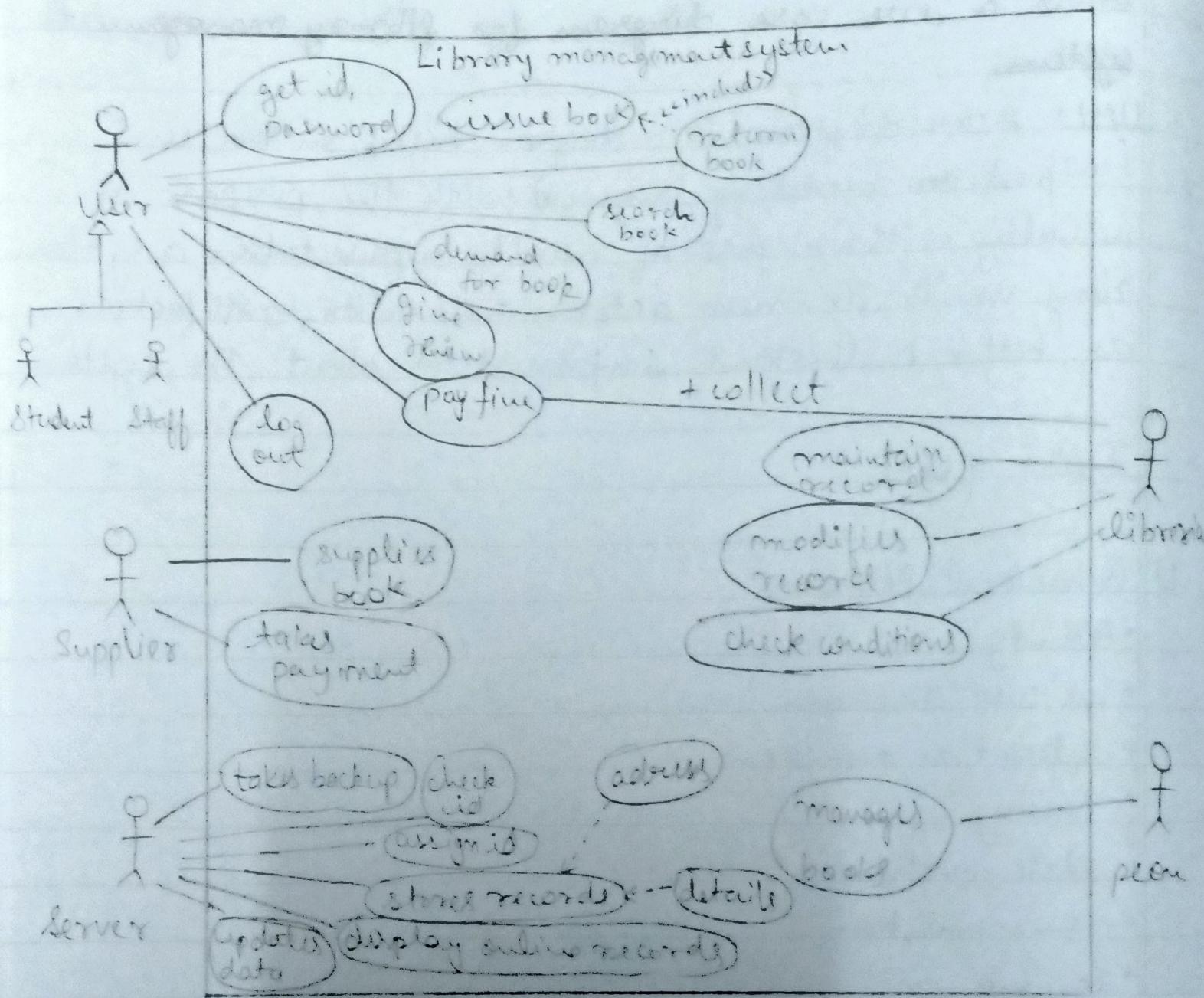
→ Types of UML

1.) Behavioral Diagram:-

- Activity
- Use case diagram
- interaction overview
- Timing
- state machine
- communication
- Sequence

2.) Structure Diagram:-

- Class
- Object
- Component
- Composite
- Deployment
- Package
- Profile



Structural Diagram

- Structural diagrams emphasize on things that must be present in system being modeled.
- Since structural diagrams represent structure, they are used extensively in documenting software architectures of software systems.

Behavioural Diagrams

- They emphasize on what must happen in the system being modeled.
- Since behaviour diagrams illustrate the behavior of a system, they are used extensively to describe the functionality of software systems.

* Use Case Diagram *

→ It represents a functions of a system by utilizing actors and use case. It encapsulates the functional requirement of a system and its association with actors. It provides a use case view of a system.

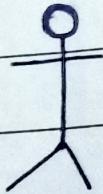
3 main components are :-

- Functional requirements - represented as a use case.
- Actors - who interact with the system; an actor can be a human being, an organization or as an internal/external application.
- Relationship - b/w actors and use case represent using straight arrows.

* Notations :-

Use Case

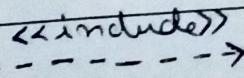
→ Use Case



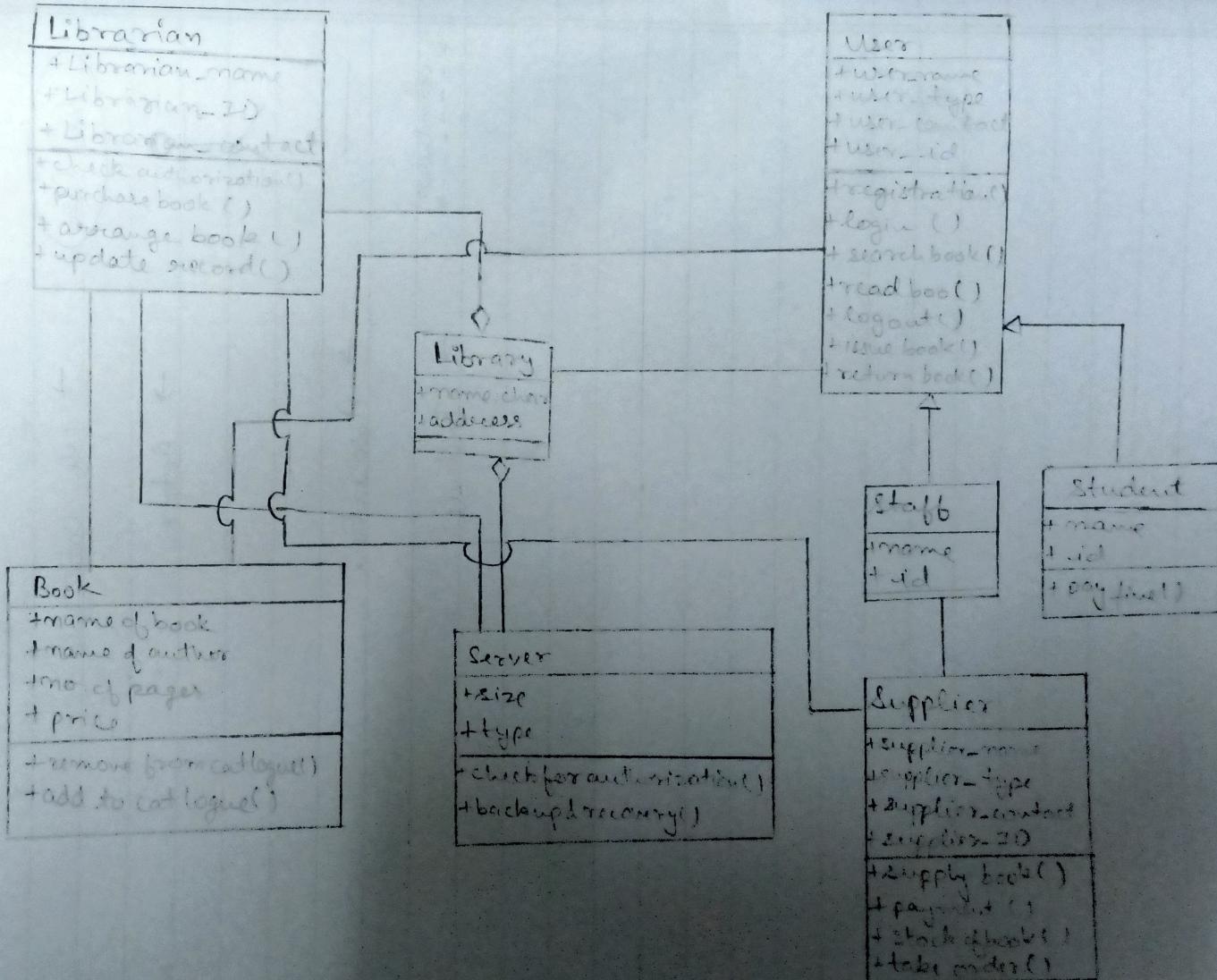
→ Actor



→ Association



→ Include



Experiment-02

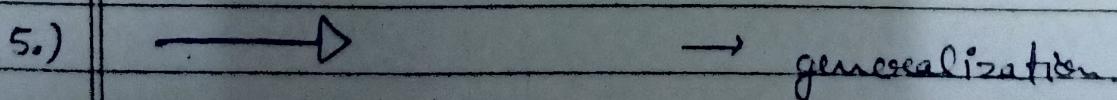
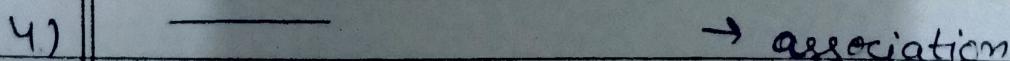
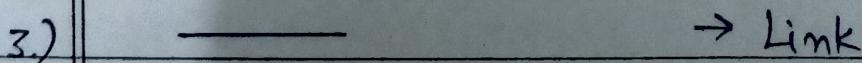
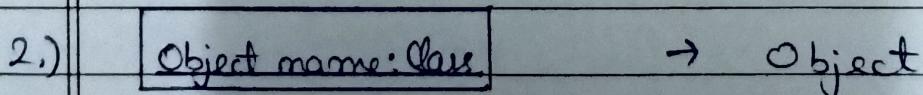
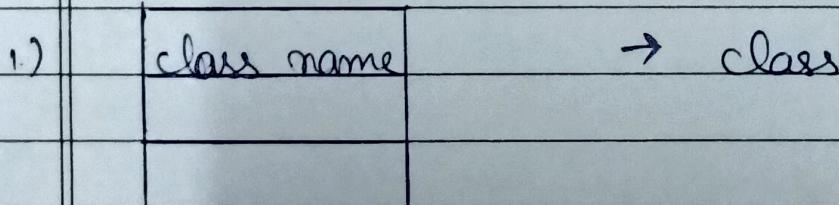
Draw a class diagram for library management system.

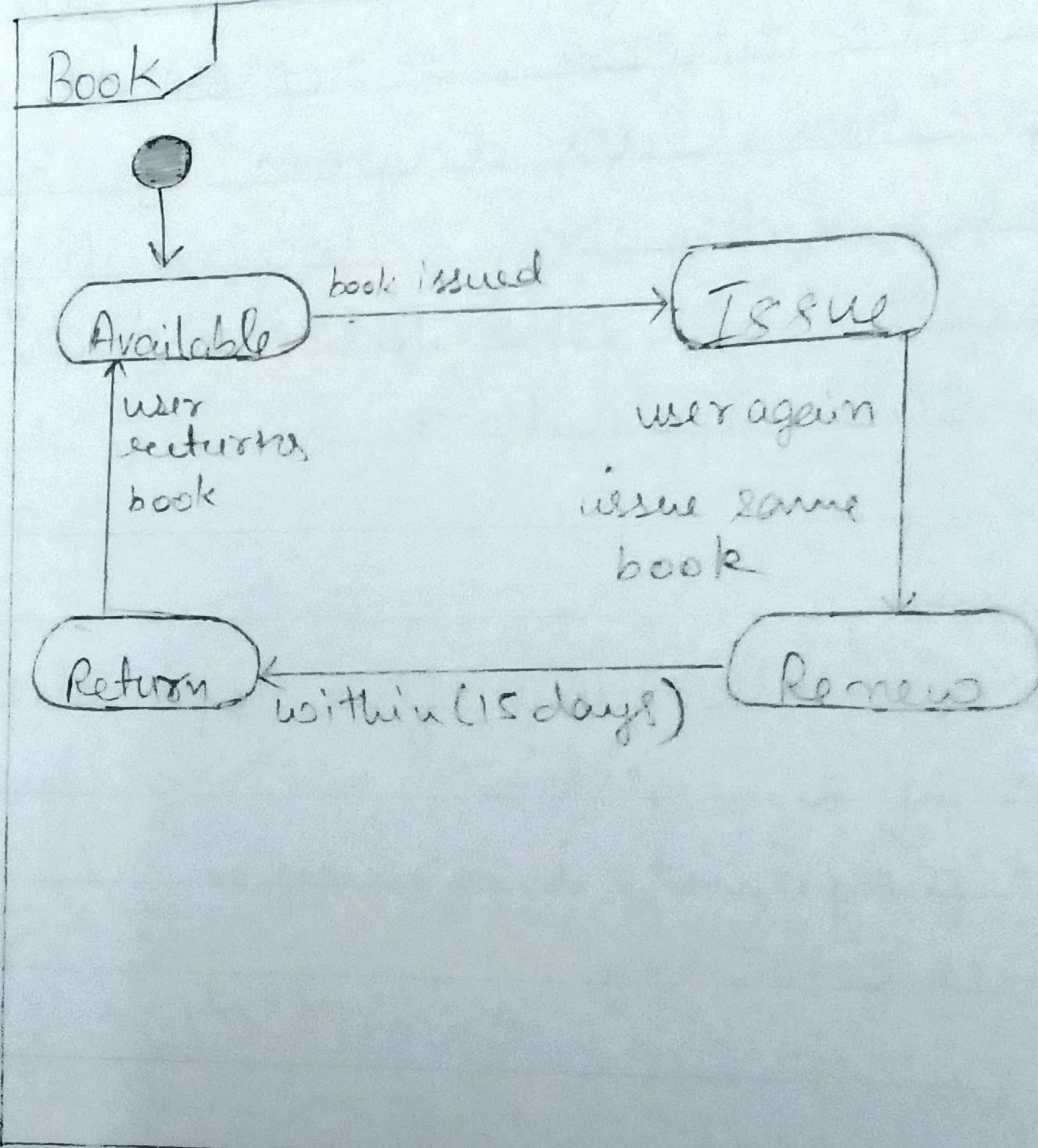
→ Class diagram is a static diagram. It represents static view of an used application. Class diagram is not only used for visualizing, describing & documenting different aspects of system but also for constructing executable code of the SW applications.

→ Purpose of class diagram:-

- analysis and design of static view of an application.
- describe responsibilities of a system.
- Base of component & deployment diagrams.
- Forward & reverse engineering.

* Notations





Experiment-03

Draw a state machine for library management system

→ The state machine diagram also called state chart or state transaction diagrams, which show order of states understood by an object within system it captures the slow system behavior. It model the behavior of a class, a subsystem a package to a complete system.

→ Purpose :-

- for modeling object state of a system.
- for modeling reactive system as it consist of reactive objects.
- for pinpointing responsible for state transition.
- for implementing forward & reverse engineering.

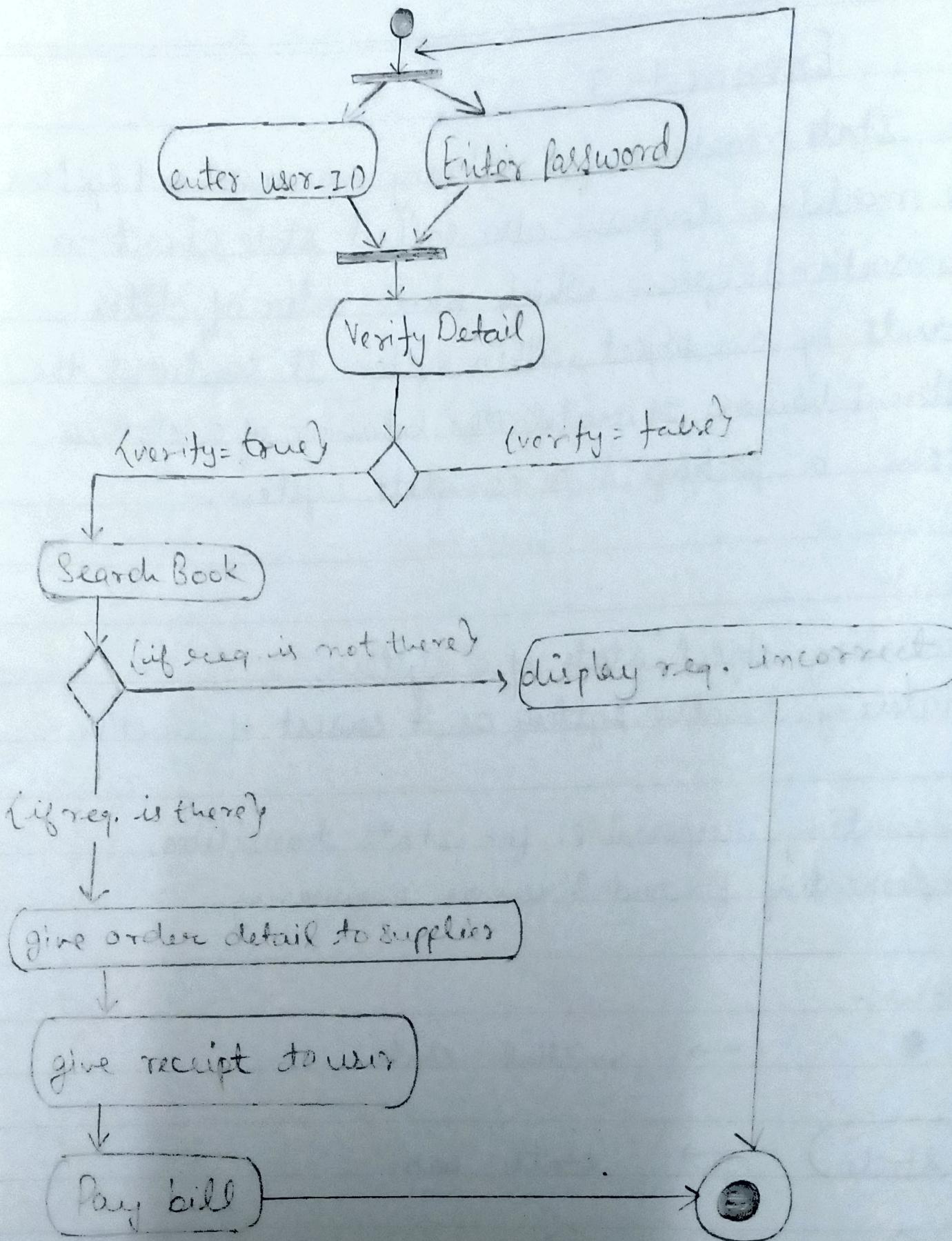
* Notations:-

1.) ● → initial state

2.) (State) → state bar

3.) ◊ → decision box

4.) ○ → final state



Experiment-04

→ Draw a activity diagram for ordering new books.

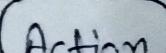
Activity diagram is basically as flow chart to represent the flow from one activity to another activity. The activity can be described as an operation of the system.

* Purpose:-

- It is used to capture dynamic behavior of system.
- Activity is a particular operation of system.
- Activity diagram not only used for visualizing dynamic nature of a system, but they are also used to construct executable system by using forward & reverse engineering technique.

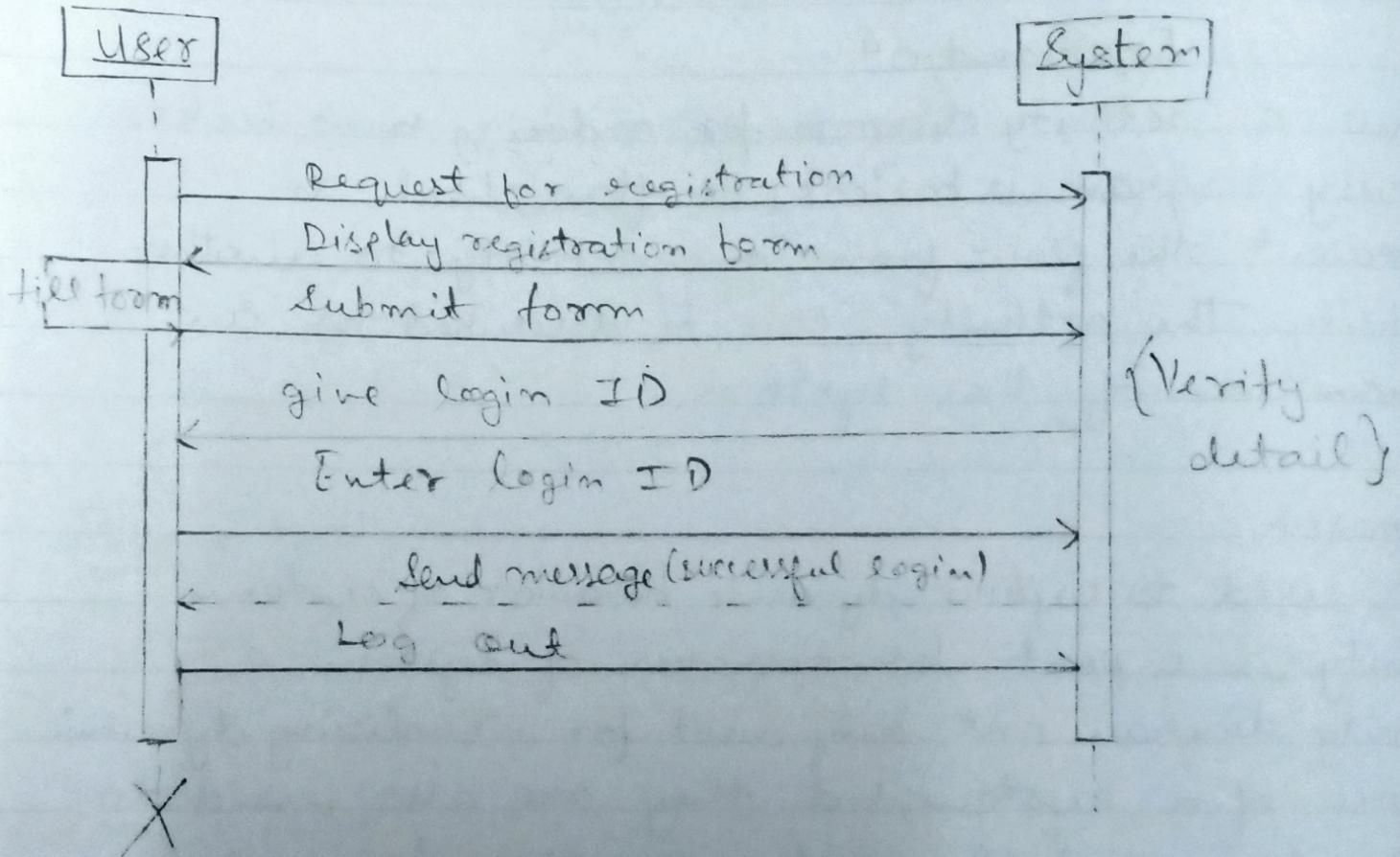
* Notations:-

1.)  → initial state

2.)  → action box

3.)  → decision box

4.)  → final state



Experiment - 05

Draw a sequence diagram for library management system.

Interaction Diagram:-

- From the term interaction it is clear that the diagram is used to describe some type of an interaction among the different elements in the model, this interaction is part of dynamic behavior of the system. It is represented in two diagrams known as sequence diagram & collaboration diagram.
- The sequence diagram envisions order of the flow of message inside the system by depicting the communication b/w life lines. Just like a time order sequence event.
- The collaboration diagram which is also known as communication diagram, represents how life lines connect within system, whereas the timing diagram focuses on the instant when the message is passed from element to another.

* Notations:-

- 1.) [Instance]: Class → Object
- 2.) [Instance]: Class → Life line
- 3.) | → Scope

1.) ~~message~~ → → message transition