Name of Student:

Date of Performance: **Date of Completion:**

Experiment No: 5

Title: Designing an e-commerce (online shopping system).

Aim: To design e-commerce (online shopping system).

Requirements: Single Computer (preferably Pentium IV+) and any Open Source/Freeware/Shareware CASE Tool for Analysis & Design

Prelab:

Problem Definition

This project aims to develop an online shopping for customers with the goal so that it is very easy to shop your loved things from extensive number of online shopping sites available on the web. With the help of this you can carry out an online shopping from your home. Here is no compelling reason to go to the crowed stores or shopping centres during festival seasons. You simply require a PC or a laptop and one important payment sending option to shop online.

Software requirement specification

Purpose

This document is meant to delineate the features of OSS, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other. The Online Shopping System (OSS) for electronics item shop web application is intended to provide complete solutions for vendors as well as customers through a single get way using the internet. It will enable vendors to setup online shops, customer to browse through the shop and purchase them online without having to visit the shop physically. The administration module will enable a system administrator to approve and reject requests for new shops and maintain various lists of shop category.

Scope

This system allows the customer's to maintain their cart for add or remove the product over the internet.

Overview

The Online Shopping system (OSS) application enables vendors to set up online shops, customers to browse through the shops, and a system administrator to approve and reject requests for new shops and maintain lists of shop categories. Also the developer is designing an online shopping site to manage the items in the shop and also help customers to purchase them online without visiting the shop physically. The online shopping system will use the internet as the sole method for selling goods to its consumers.

Product perspective

This product aimed toward a person who don't want to visit the shop as he might don't get time for that or might not interested in visiting there and dealing with lot of formalities.

Software requirement

The system is on server so it requires the any scripting language like PHP, VBScript etc. The system require Data Base also for the store the any transaction of the system like MYSQL etc. system also require DNS(domain name space) for the naming on the internet. At the last user need web browser for interact with the system.

Hardware requirement

The System must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.

Product function

This system provides an easy solution for customers to buy the product without going to the shop and also to shop owner to sale the product. This proposed system can be used by any naïve users and it does not require any educational level, experience or technical expertise in computer field but it will be of good use if user has the good knowledge of how to operate a computer

Functional requirements

This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be

Description

Registration

If customer wants to buy the product then he/she must be registered, unregistered user can't go to the shopping cart.

Login

Customer logins to the system by entering valid user id and password for the shopping.

Changes to Cart

Changes to cart means the customer after login or registration can make order or cancel order of the product from the shopping cart.

Payment

In this system we are dealing the mode of payment by Cash. We will extend this to credit card, debit card etc in the future.

Logout

After ordering or surfing for the product customer has to logout.

Non-functional Requirements

Following Non-Functional Requirements will be there in the insurance to the internet:

(i)Secure access to consumer's confidential data.

(ii) 24X7 availability.

(iii) Better component design to get better performance at peak time.

(iv) Flexible service based architecture will be highly desirable for future extension.

Non-Functional Requirements define system properties and constraints. Various other Non-Functional Requirements are

- ✓ Security
- ✓ Reliability
- ✓ Maintainability

- ✓ Portability
- ✓ Extensibility
- ✓ Reusability
- ✓ Compatibility
- ✓ Resource Utilization

User characteristics

user should be familiar with the terms like login, register, order system etc.

- **Principle Actors**
  Principle Actors are Customer and Administrator.

General Constraints

A full internet connection is required for OSS.

System architecture

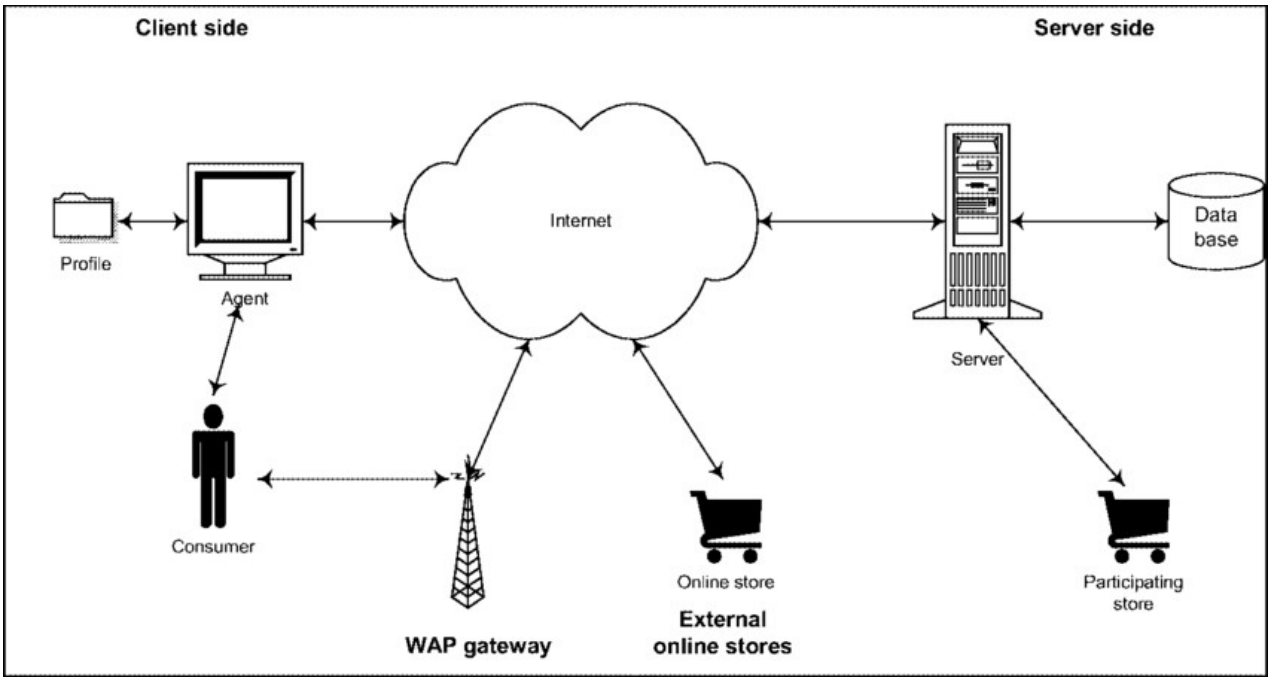

Fig 1: system architecture for online shopping system (oss)

System Development Model

System design is the process of defining the architecture, components, modules, interface, and data for a system to satisfy specified requirement through system modelling. One could see it as the application of system theory to produce development. The design of this system will be user friendly. It shall be designed in such a way that employees will be able to navigate easily through the information supplied on the system.

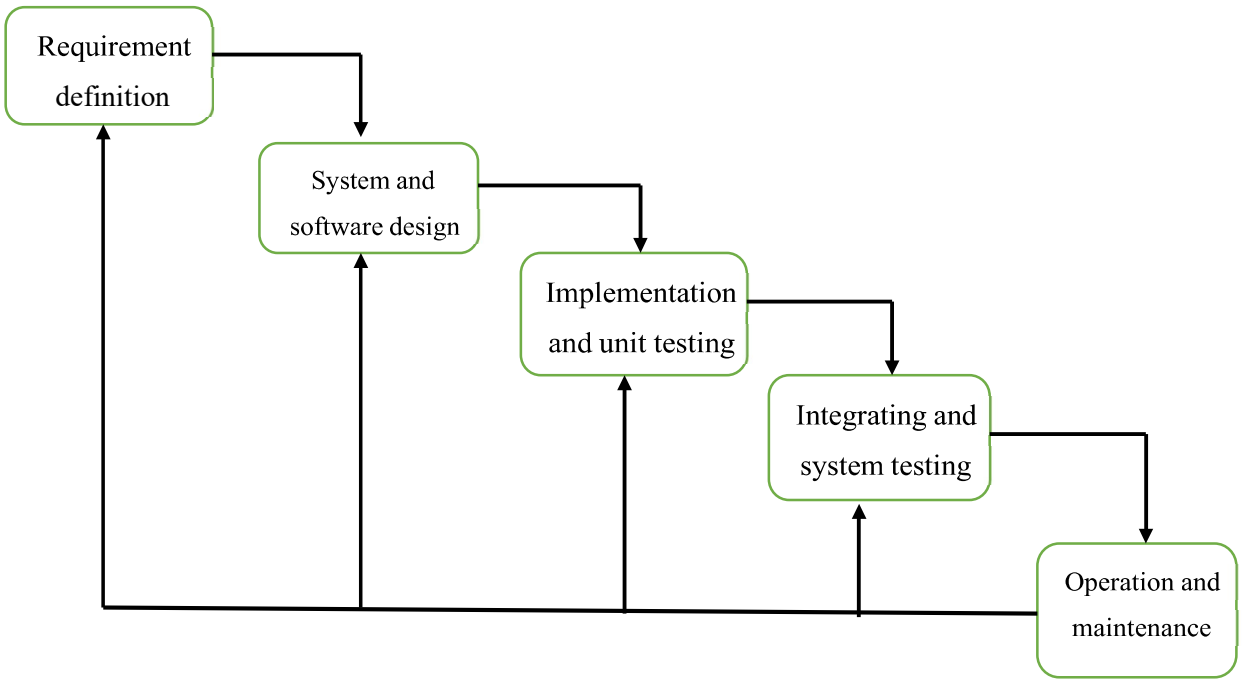

Fig.2: Waterfall Model of Life Cycle

In other words, system design consists of design activities that produces system specification satisfying the functional requirement that were developed in the system analysis process. System design specifies how the system will accomplish. System design is the structural implementation of the system analysis.

The diagram above is a system development life cycle that illustrate how the design of the project is broken down into five different phases, requirement definition, system and software design, implementation and unit testing, integrating and system testing, operation and maintenance.

The purpose online shopping system is for online shopping and store will start with project planning by determining the user of the system, aims and objective of the project.
After these, extensive research will be done to determine how to design an effective system, as well as to review the current system. Then the design was with an initial prototype of the system, and then refined it based on their suggestion. Phases of analysis, design and implementation were performed iteratively until users and designers agreed on a final system specification. At this point, the project could move to final implementation phase.

Inlab:

The UML diagrams developed during the laboratory session for ATM system are as follows

1. Data Flow Diagram (DFD):

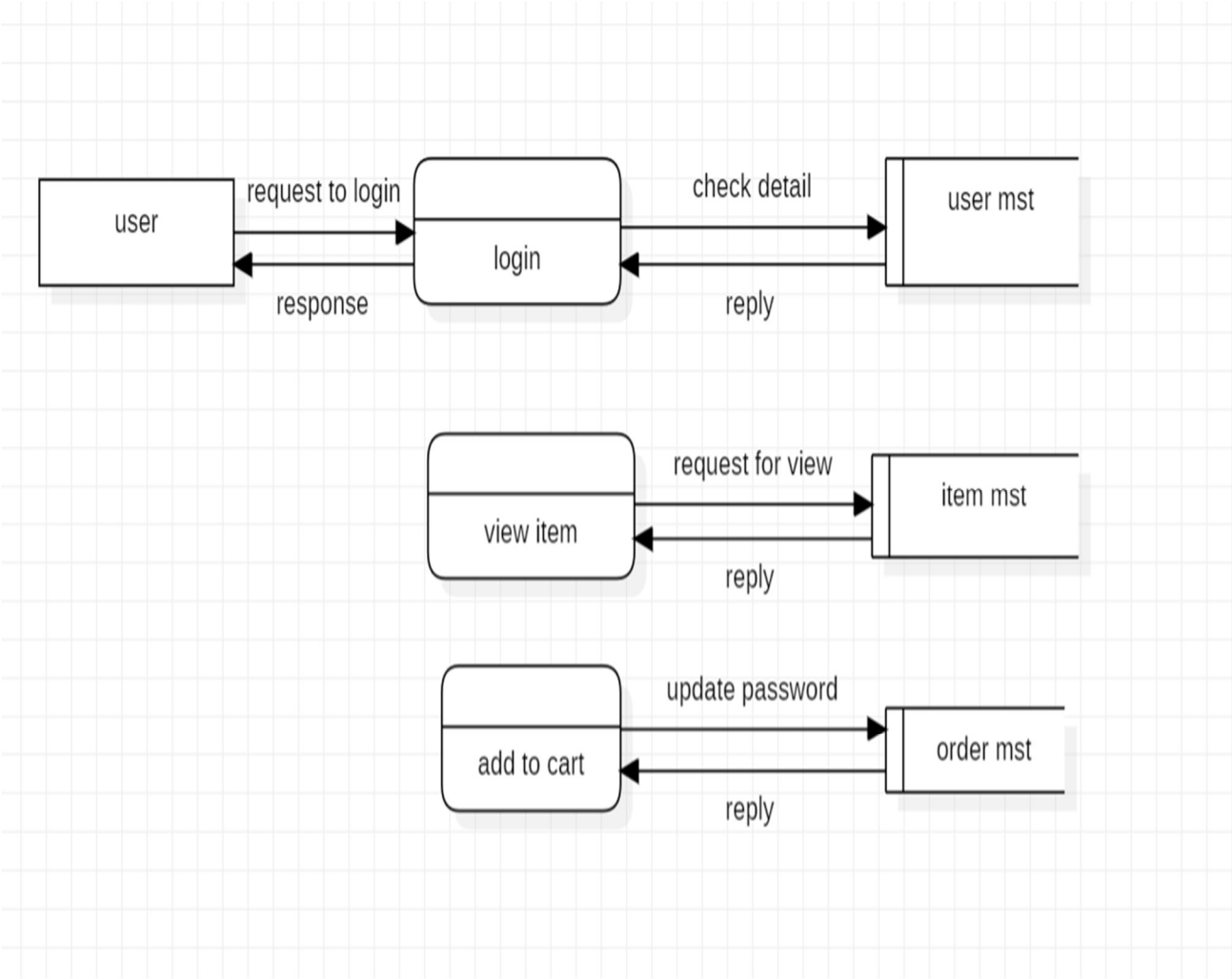

Fig.3: Data Flow Diagram of online shopping System

2. Use Case Diagram:

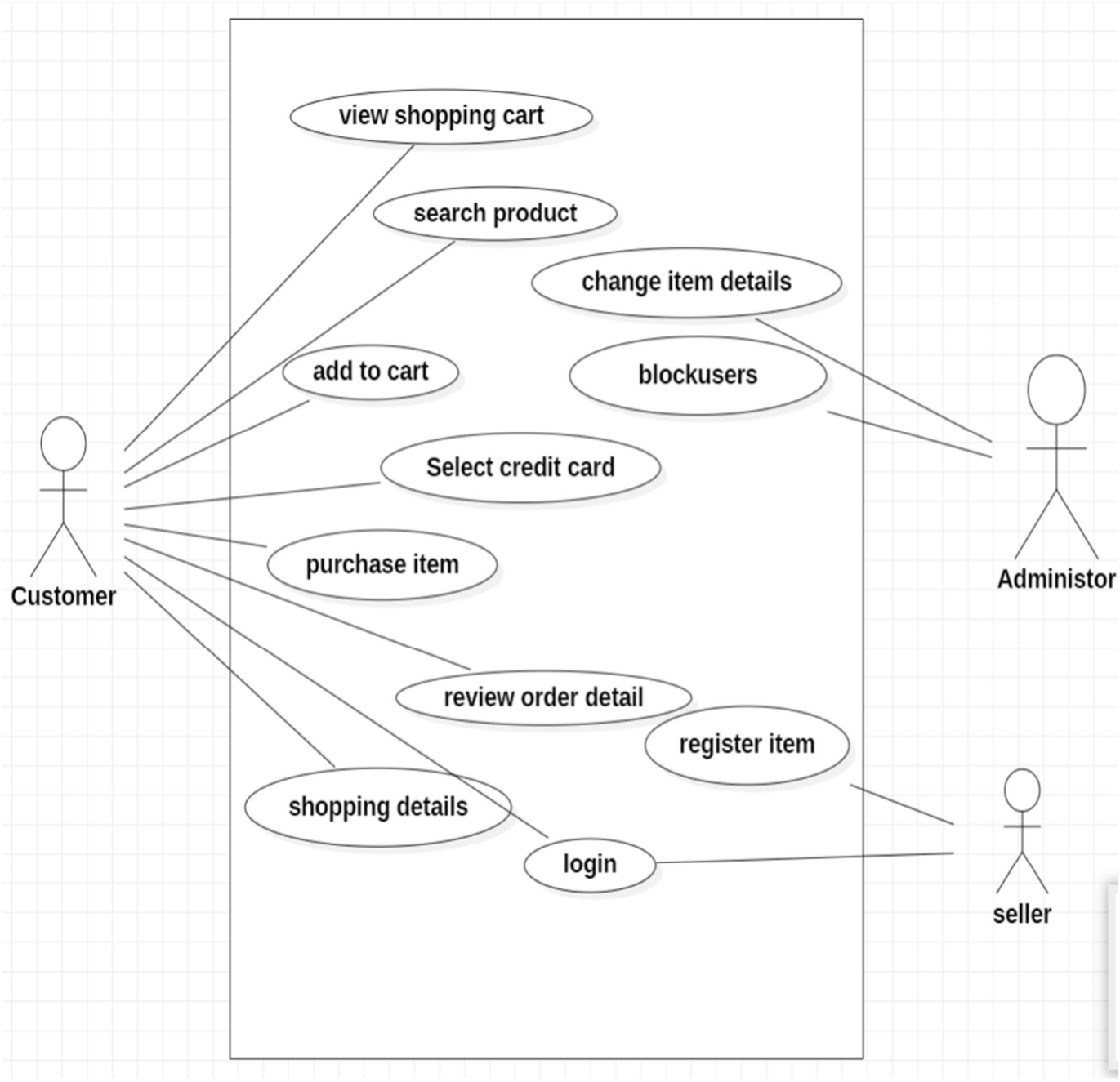

Fig.4: Use Case Diagram of online shopping System

3. Class Diagram:

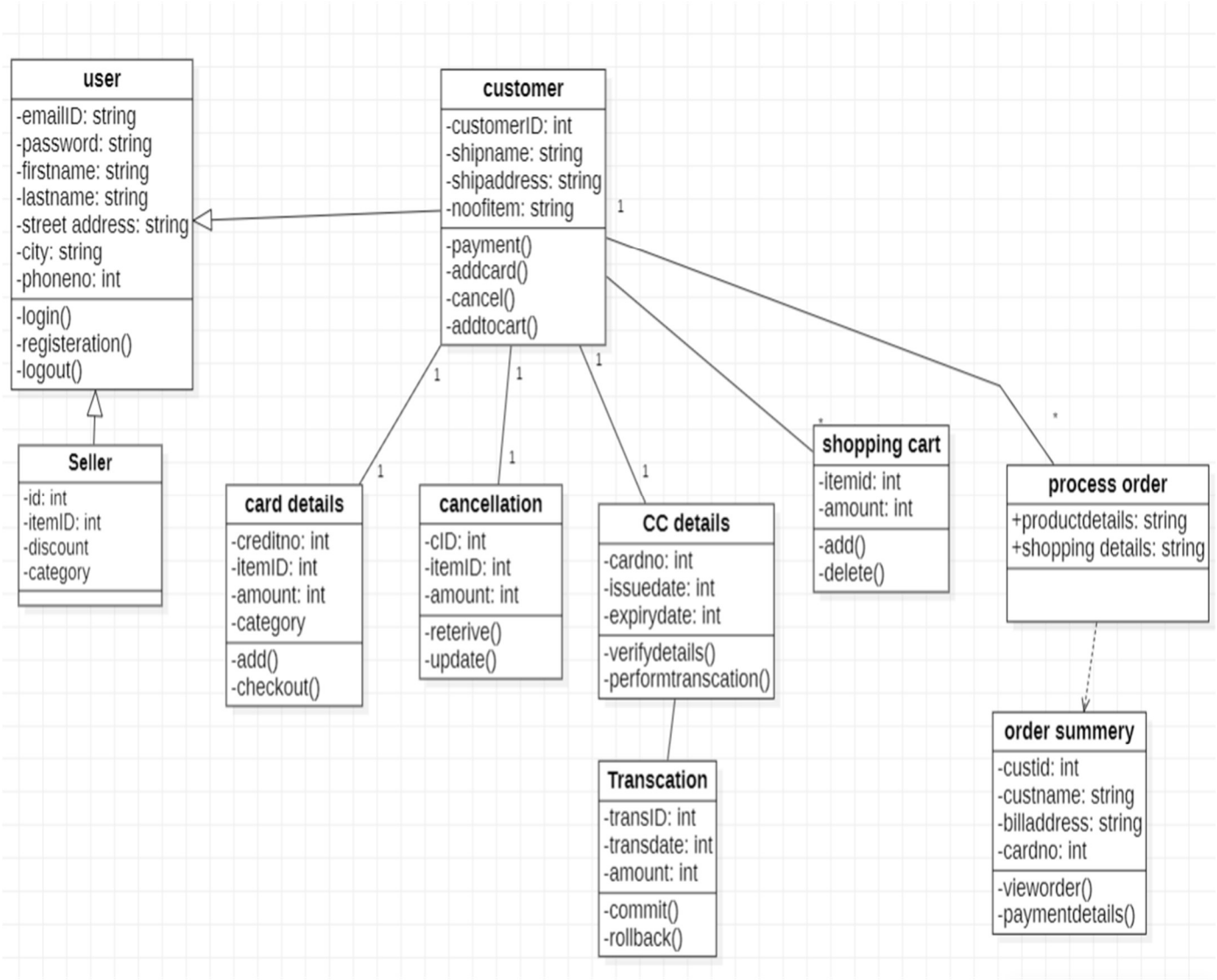

Fig.5: Class Diagram of online shopping System

4. Sequence Diagram:

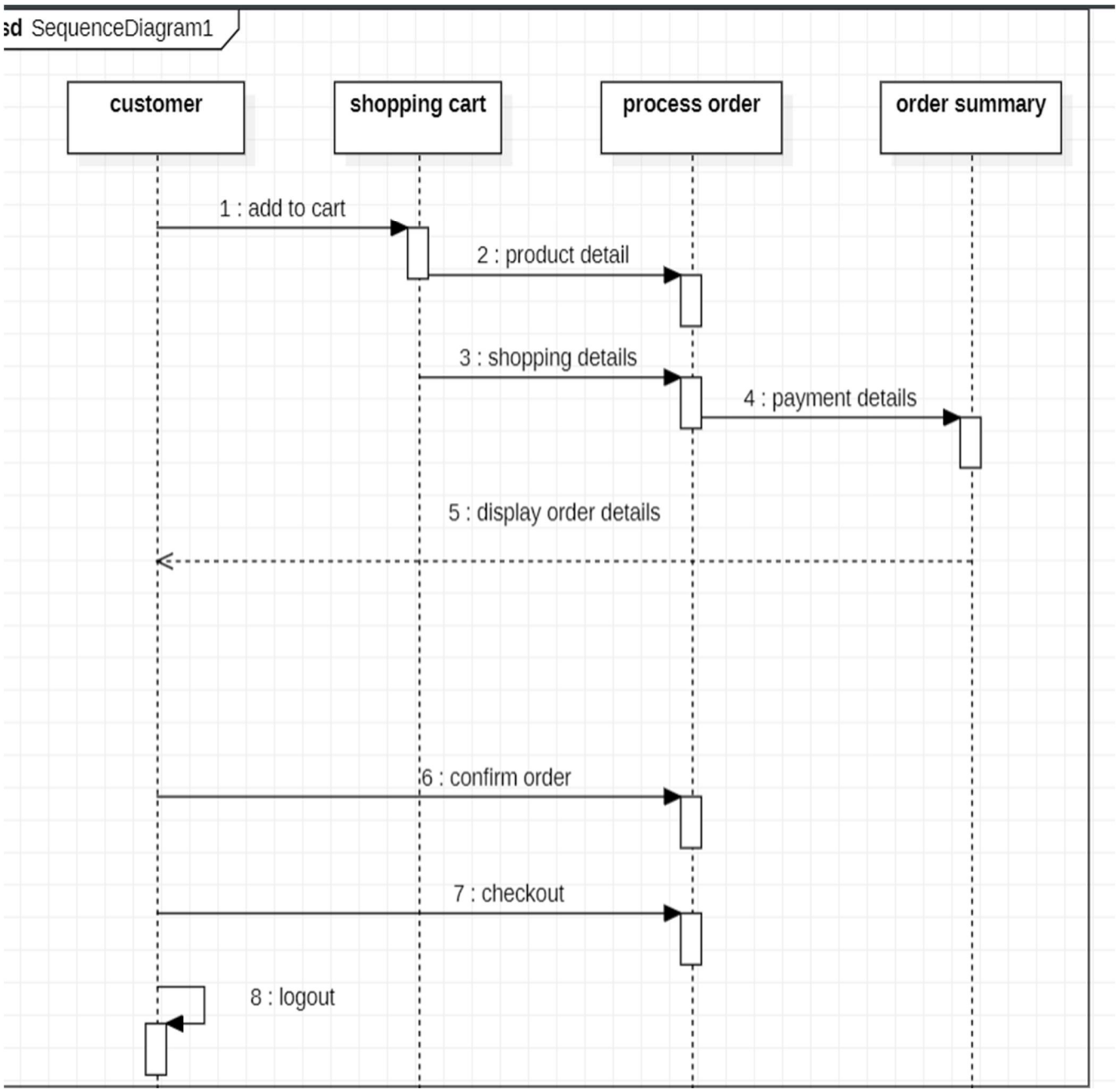

Fig.6: Sequence Diagram of online shopping System

5. Communication Diagram:

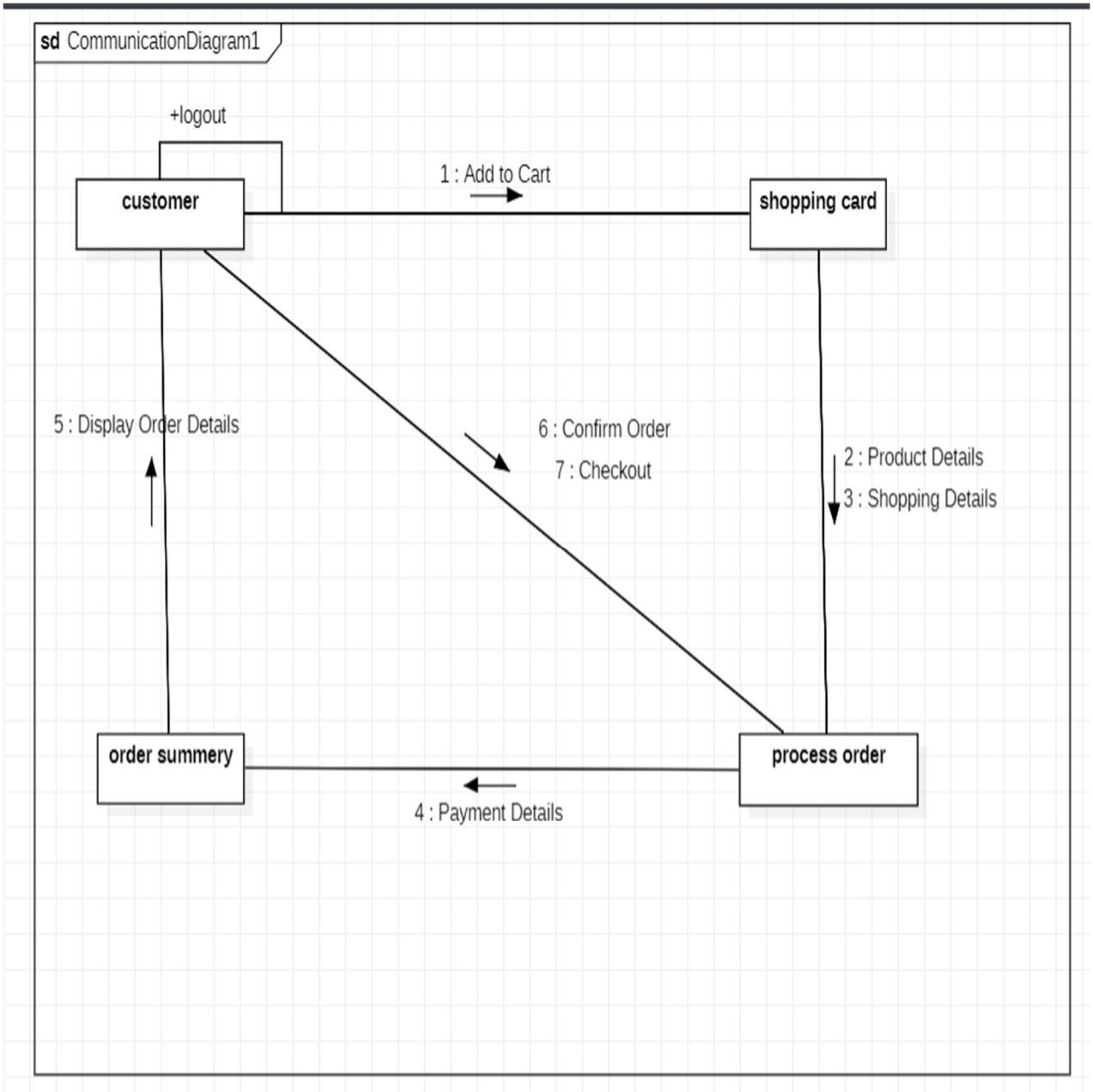

Fig.7: Communication Diagram of online shoping System

6. State-chart Diagram:

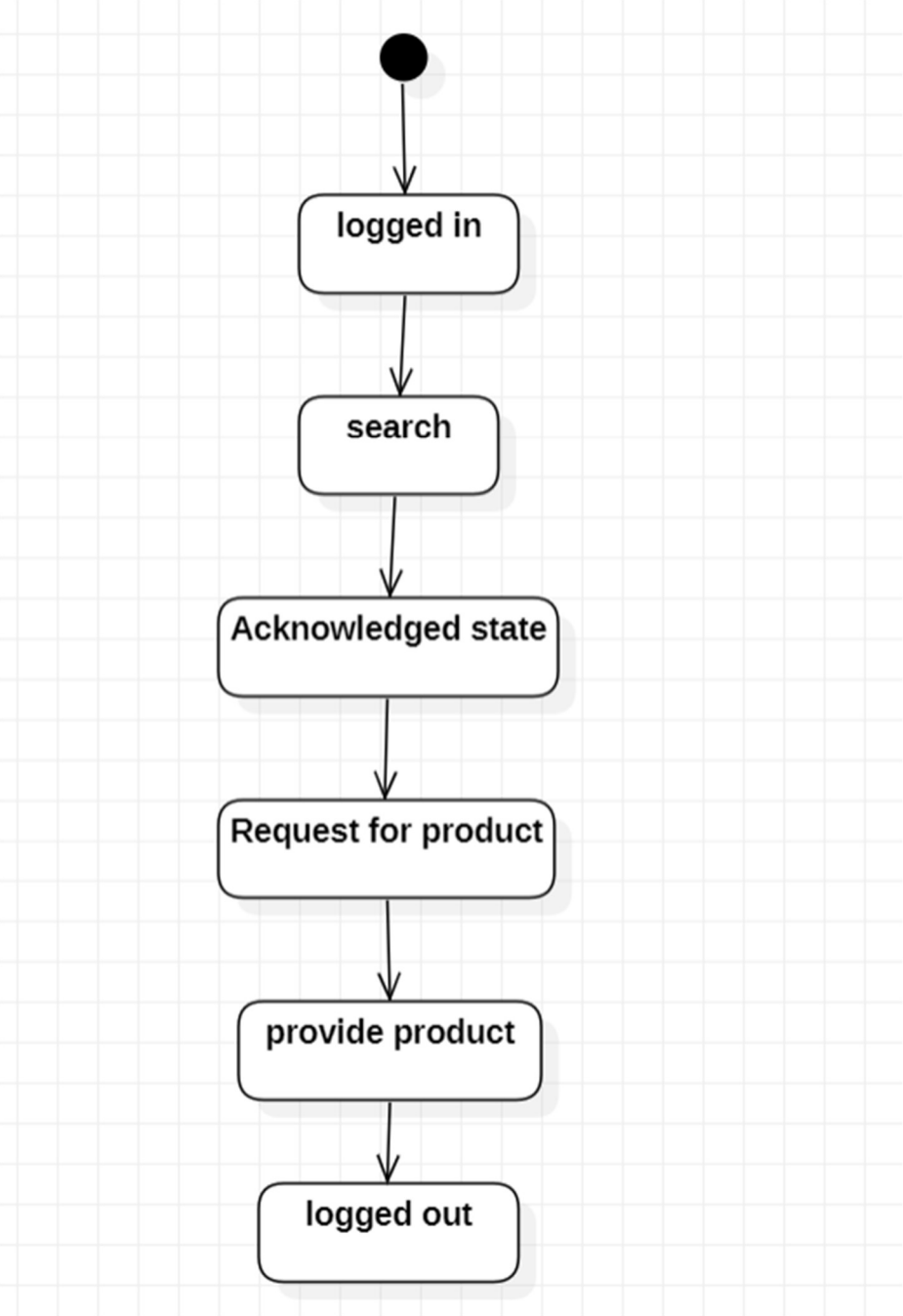

Fig.8: State-chart Diagram of online shopping System

7. Activity Diagram:

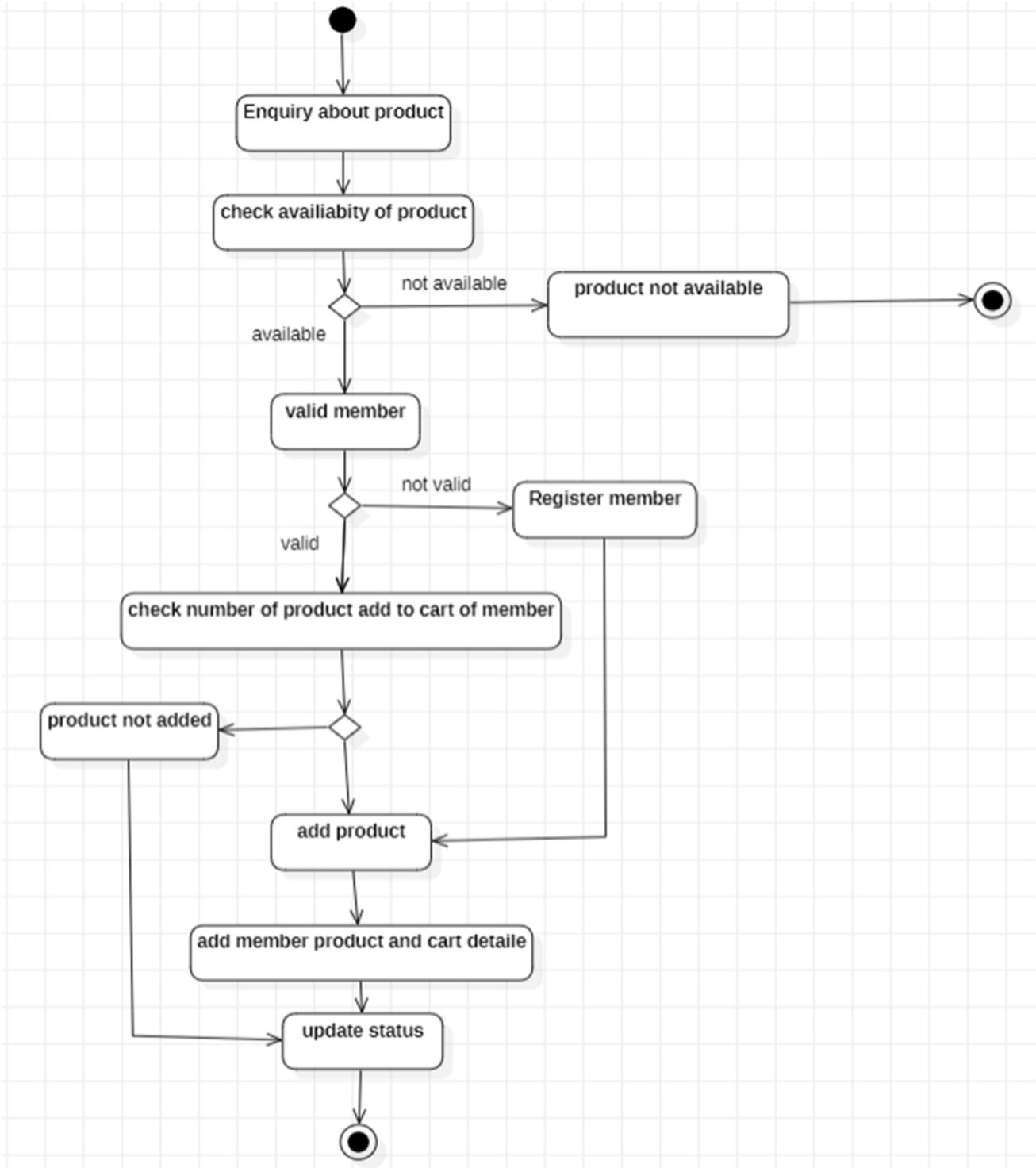

Fig.9: Activity Diagram of online shopping System

8. Component Diagram:

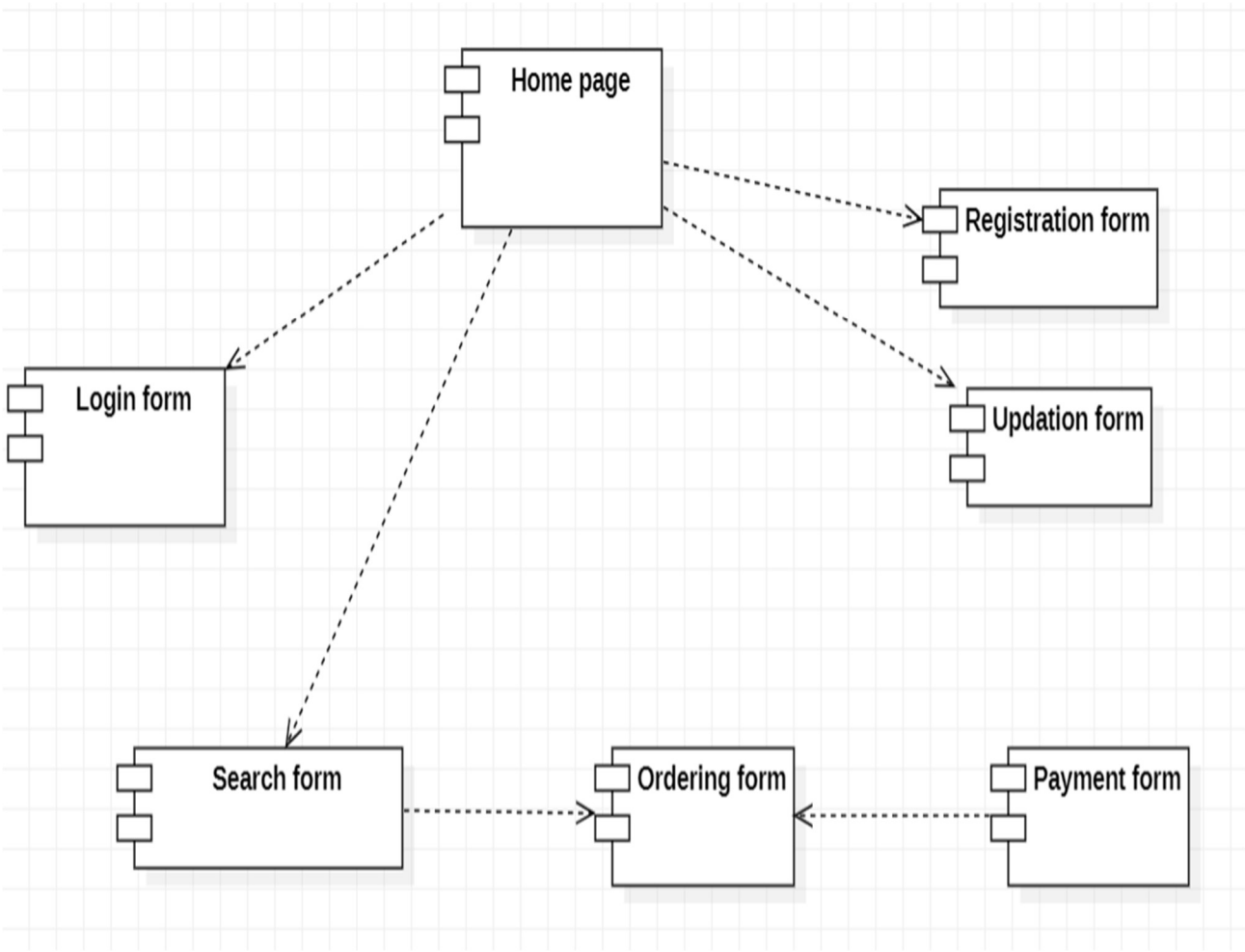

Fig.10: Component Diagram of online shopping System

9. Deployment Diagram:

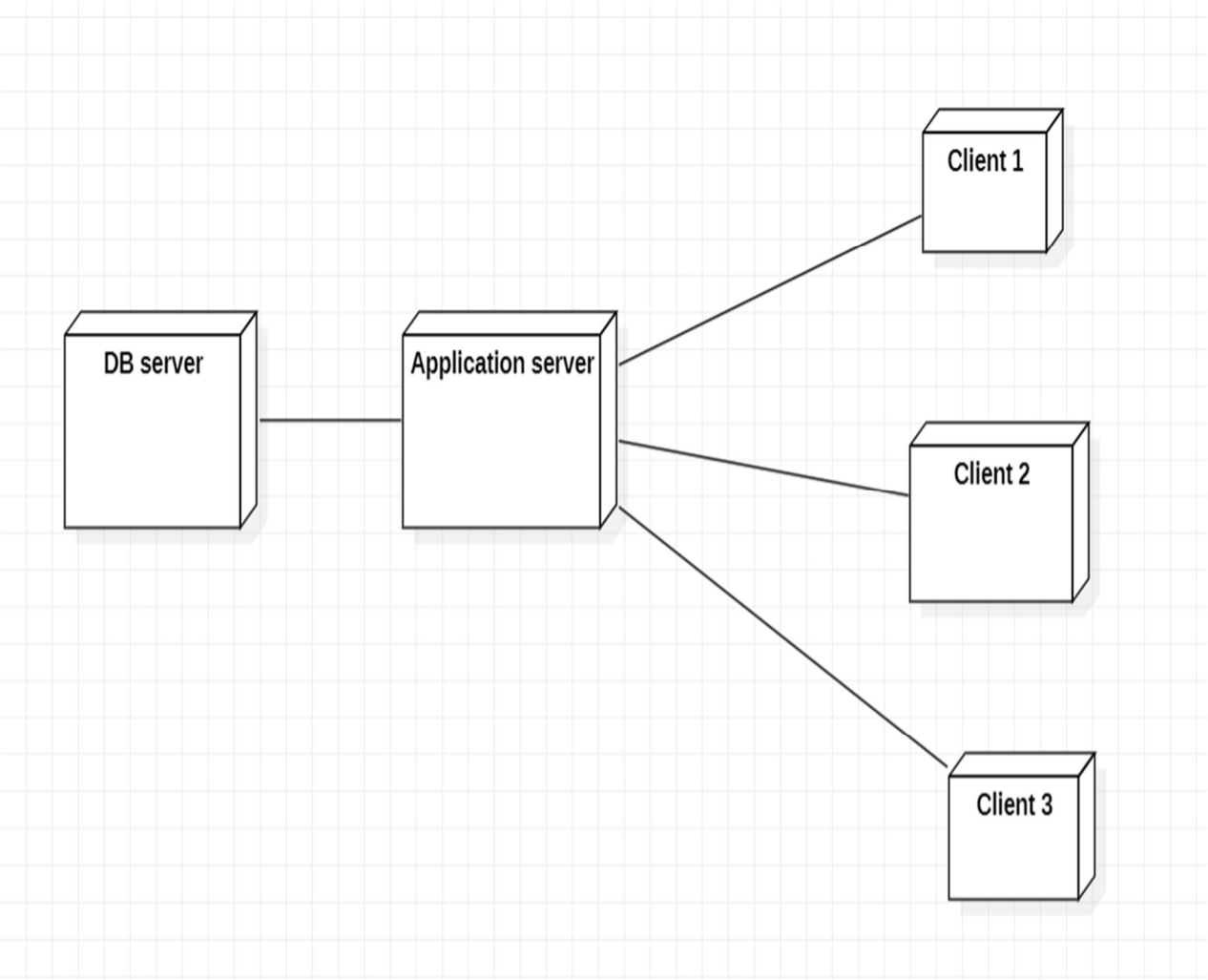

Fig.11: Deployment Diagram of online shopping System

Questions

Name:

Class:

Section:

Roll No:

Signature:

Q. 1) What are object used in sequence diagram of e-commerce system.

Q. 2) List all state of the object shown in the state diagram of e-commerce system.

Q. 3) Write down all the attributes of any one class with visibilities and data type.

Q. 4) List all the functionalities shown in e-commerce system.