



American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science & Technology (FST)

Spring 2020-2021

Online Shopping Management System

CSC 2210 Object Oriented Analysis and Design (OOAD)

Section: A

Group No: 5

An Object-Oriented Analysis and Design (OOAD) project submitted
By

SL No	Student Name	Student ID	Contribution (%)
01	Nadim Ahmed	19-41770-3	50%
02	Million, Md Mahadial Mohok	19-41761-3	50%
03	Nasim Reza Hridoy	19-41045-3	0%
04	Khandoker Alvee Rahman	19-41492-3	0%
05	Tarekuzzaman moin	19-41025-3	0%

CHAPTER 1: PROBLEM DOMAIN

1.1 Project Background Analysis

- **Write the background description that helps putting the project into the right context of a problem domain and gives everyone involved a common view of the project.**

Online shopping is the easy solution for busy life in today's world. In the past decade, there had been a massive change in the way of customer's shopping. Despite consumers' continuation to buy from a physical store, the users or buyers feel very convenient to online shopping. Online shopping saves crucial time for modern people because they get so busy that they cannot or unwilling to spend much time shopping.

- **What is the root cause of this problem? why is this problem is so important to consider?**

The survey reveals that consumers shop online to save time, and for available varieties of products and services. Both male and female both have the same type of behavior towards liking and disliking factors; they like home delivery facility and dislike inability to touch and feel the product most. They acquire online shopping information from websites especially from the social network and purchase apparels, accessories mostly through cash on delivery method of payment. The most of the consumers are concern about the security of the payment system, and their overall online shopping satisfaction is mixed.

From the above discussion, we can say that the problem of online shopping management system is important to consider.

1.2 Project Solution and Feasibility Analysis

- **What are the solutions you are going to propose to deal with the problem? why is this solution is particularly appropriate to solve the problem? Is the solution feasible to the meet the business objective?**

To deal with the problem we are going to propose some solutions which is given below:

1. The project objective will be focused on developing an online shopping system to ensure the effectiveness of the flow of shopping. Moreover, the system will offer a complete management system that integrated with the online shopping to help the people.
2. Online shopping saves energy because someone does not need to go to a physical store by wasting his energy on shopping.
3. If someone has the specific list of shopping orders of what he wants to buy, he can buy instantly with just a few clicks of the mouse from a site and can move to some other important work. Thus can save his time.

Yes, the solution is feasible to meet the business objective. Because in this system people will have to be connected through the network and here the network provider will also get the business benefit.

- **Provide a short description of the software being specified and its purpose, including relevant benefits, objectives, and goals?**

Here the software which is being specified is Online system. In this project we've shown that how an online shopping management system works and its process step by step through Use Case diagram, Class diagram, Sequence diagram, State chart diagram and Activity diagram.

Now the purpose, including relevant benefits, objectives and goals is given below:

Purpose: The purpose of this project is to develop an object-oriented model for online shopping management system.

Benefits: The benefits of this project are the system will offer a complete management system that integrated with the online shopping to help the People.

1. The system provides an online shopping to Saves time and efforts.
2. The system can give Good discounts / lower prices.
3. The system can give detailed information of the product.

Objectives: The main objective of creating the document about the software is to know about the list of the requirement in the software project part of the project to be developed. It specifies the requirement to develop a processing software part that completes the set of requirements. The cores of objectives of the project are followings:

1. To propose an online shopping and management system.
2. To identify the user requirement for online shopping and management system.

Goals : The main **goal** to increase the quantity of sales by making the new technology of web pages design more attractive and to search a lot of customers and company to their location.

- **Existing studies presented in the problem area. What are the existing software solutions are available to solve the aforementioned problem?**

There are many existing software solutions are available to solve the aforementioned problem in our surroundings. If we look **Daraz.com** we can see that they use one online platform where peoples can shop. So, we can say that there is some existing software for this kind of problem.

- **What makes this project new, innovative, interesting, or otherwise distinct from other similar projects? Does the project duplicate functionality already available in the market?**

Online shopping management system is a digital and innovative project. Shopping without any hassle and doing the whole shopping process in an online platform with one device is kind of a blessing for peoples. The problems that are overcome are the existing system uses spreadsheet as backend now the proposed system uses access as backend, the basic requirement of the system has being improved, it has become user friendly.

The proposed system is very efficient. Now peoples can know the Products details.

They don't need to go outside and have to wait for long time standing in a line. So, because of easy access they can complete their shopping anywhere with just one device and internet connection. Sometimes students might face some issues because of their poor network connection. Besides this sometimes server may show down because of too much traffic in the system. But we can say this issue can take into the consideration. As the issue is worth to solve so this is a good side of this project.

This kind of project might be available in the market but we can assure that we've got the best solution for the problem which can be solved easily.

Finally, we can say this project is totally new, innovative, interesting, and distinct from other similar projects in the market.

CHAPTER 2: UML DIAGRAM

1.1 Use Case Diagram

- **Does the use case narrative represent the Scenario of the use case diagram?**

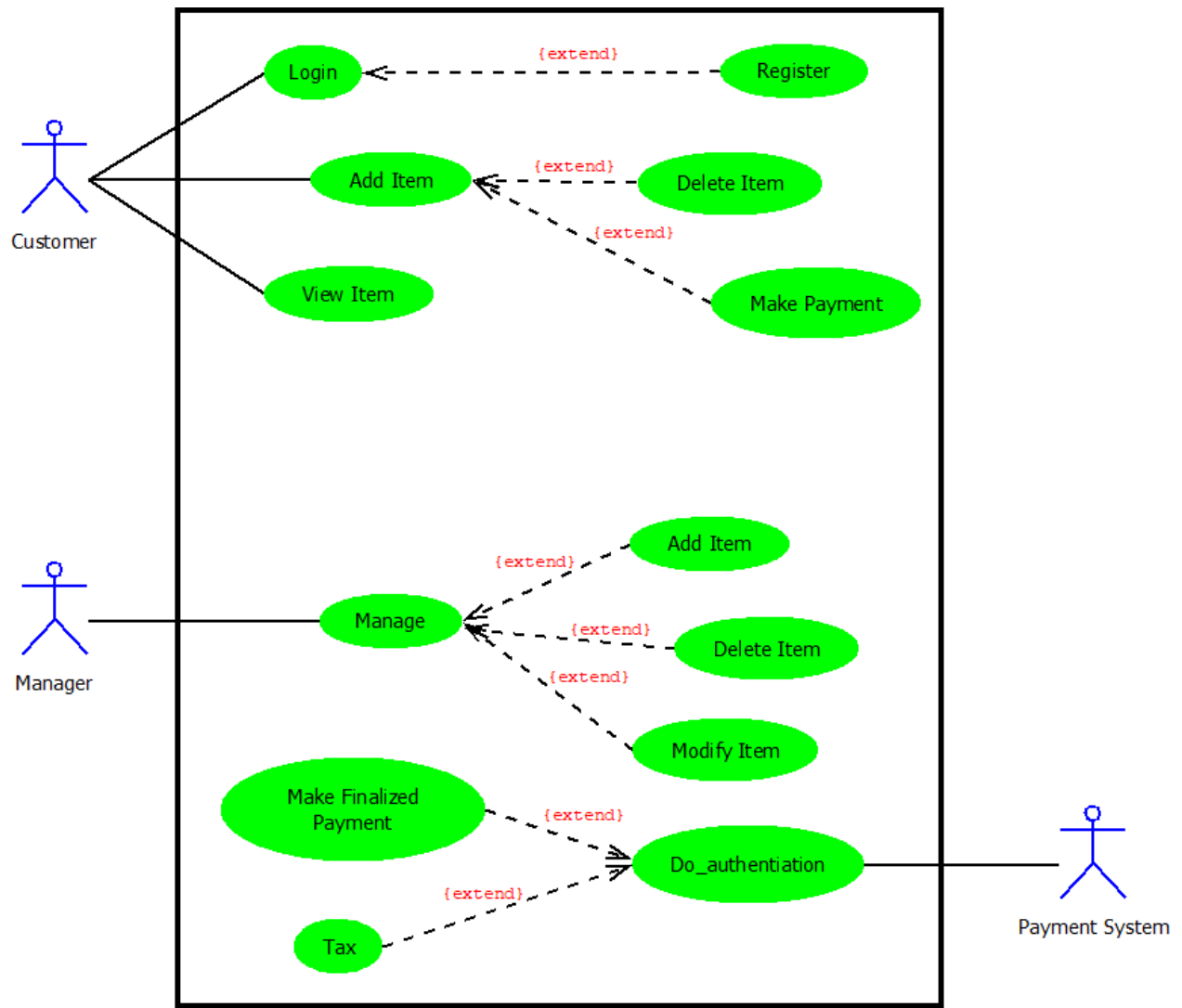
Yes, here the use case narrative represents the Scenario of the use case diagram.

- **Does the Use Case diagram include the major use cases, actors who perform the use cases and the relationships among the use cases needed to deliver by the system?**

Yes The Use Case diagram include the major use cases, actors who perform the use cases and the relationships among the use cases needed to deliver by the system.

❖ **Case Study:**

In **Online Shopping Management System**, the primary actor is Customer and the secondary actor is Manager. Customers can register by creating an account to login in the shop. After registering they can login and buy or see products which are available in the shop. They can Add Items; Delete items and makes payment of them. They also can have a print of their purchase. Manager can also make changes of which products (if needed). After having the entire authentication done customers can make payment and Manager will make sure that customers get the product ordered by customers.



2.2 Class Diagram

- **Does the class narrative represent the Scenario of the class diagram?**

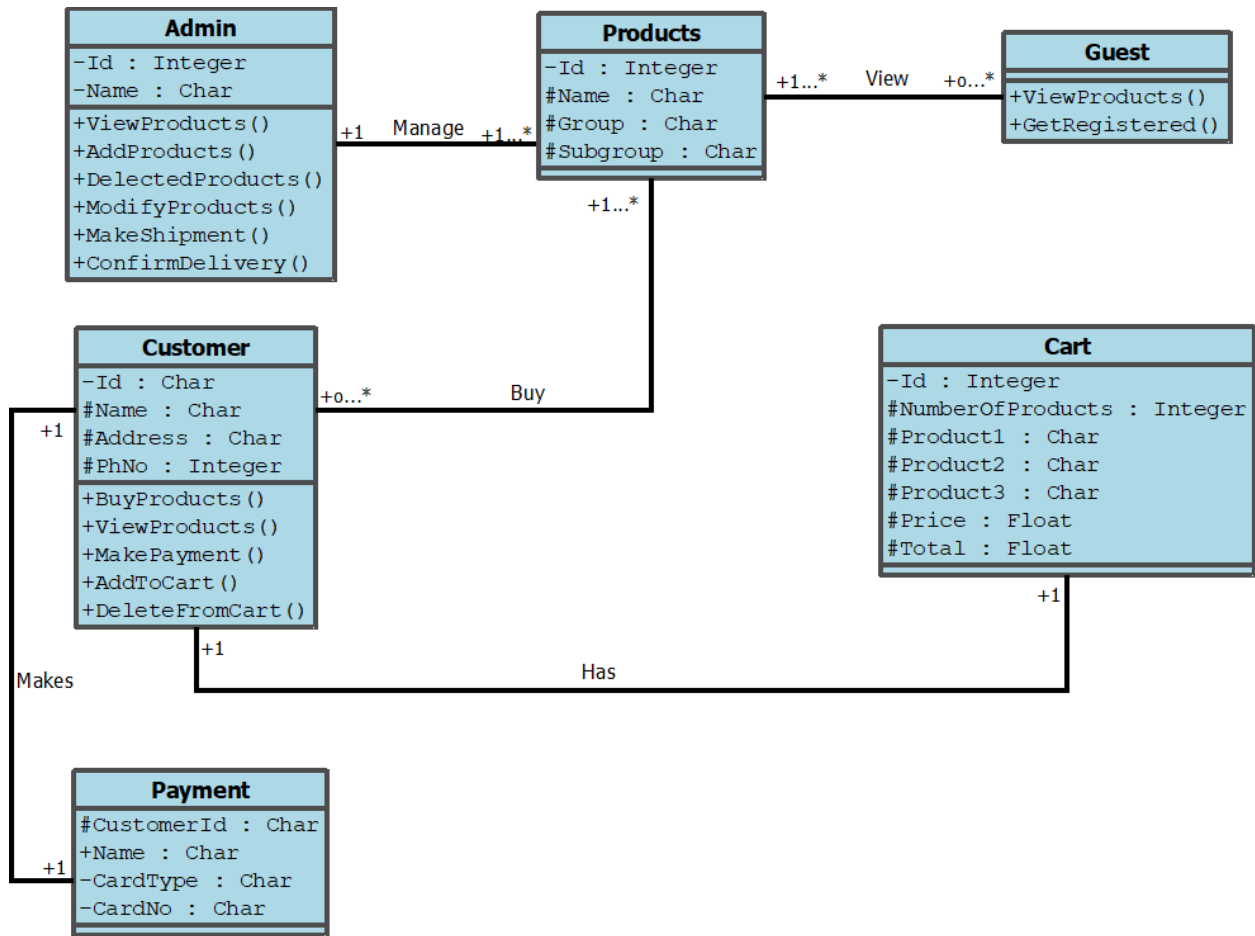
Yes, the class narrative represents the Scenario of the class diagram.

- **Does the Class diagram include the major classes (attributes, operations) and the relationship among the classes needed to deliver by the system?**

Yes, The Class diagram includes the major classes needed to deliver by the system.

❖ Case Study :

In this **Shop management system** there are some classes. In admin class there is Id which is integer type, name which is character type and an admin can view products, add, remove or modify products, make shipment and confirm the delivery. In class named Product there are ID which is integer type, name, group and sub-group are character type which can be managed by the admin and viewed by the guest and bought by the customers. In the Customer class there are Id, name and address which are Character type and phone no which is Integer type. They can View and buy a product and make payment. Similarly In class payment Customer id, name, Card type and card no is character type .A customer can make payment.



2.3 Sequence Diagram

- **Does the sequence narrative represent the Scenario of the sequence diagram?**

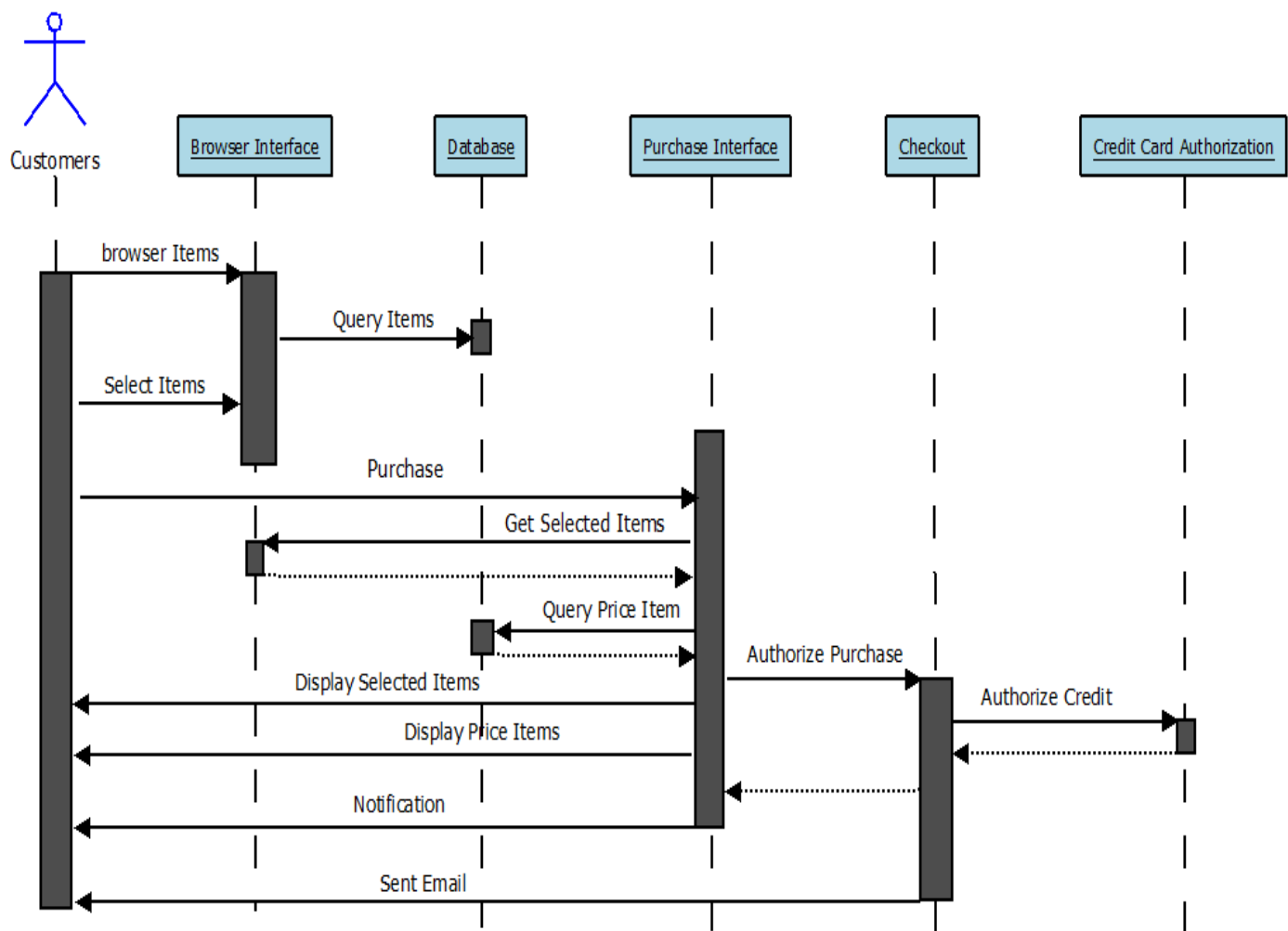
Yes, the sequence narrative represents the Scenario of the sequence diagram.

- **Does the Sequence diagram include the sequence of the major activities needed to deliver by the system?**

Yes, the sequence diagram includes the sequence of the major activities needed to deliver by the system.

❖ Case Study:

In the sequence diagram, Firstly customer will have to request for Registration. After completing the registration customer can login to the system. Customer and Admin both will have to request for login with their right information which is available in the database and the admin controls the database. Registration information will get stored in database. After registration they can get access to their profile by login. In the time of login the credentials will get verified from database. If the credentials are valid then he/she will get redirected to profile. From the profile he/she can check for available products. The status will be checked by the system from the database and the database will give response to the system. After that the system will provide the products if customer makes payment the system will ask for delivery otherwise the system will provide a receipt. Customer and Admin can logout any time after login.



2.4 State chart Diagram

- **Does the state chart narrative represent the Scenario of the state chart diagram?**

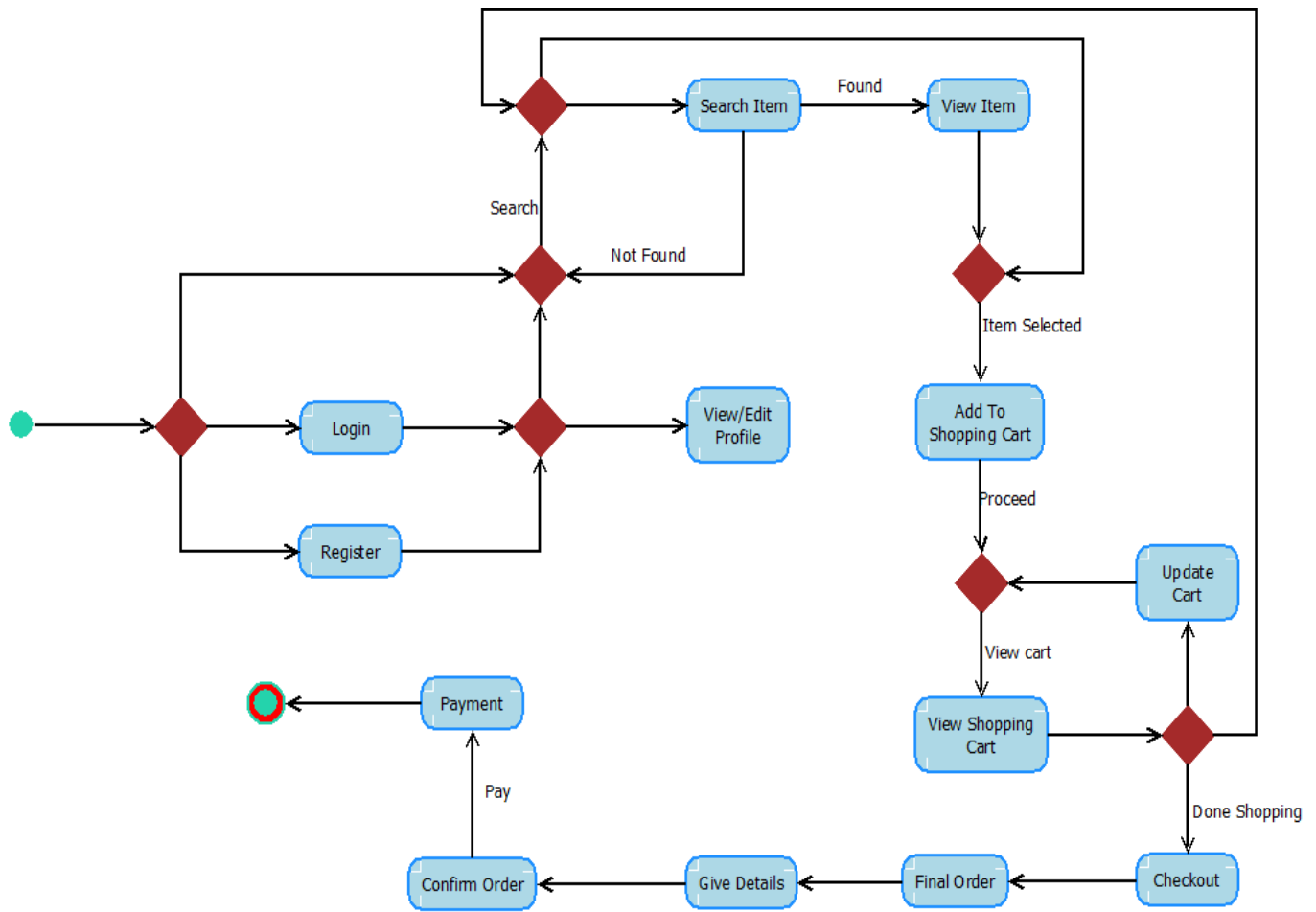
Yes, the State chart narrative represents the scenario of the state chart diagram.

- **Does the State chart diagram include the major states needed to deliver by the system?**

Yes, the State chart diagram includes the major states needed to deliver by the system.

❖ Case Study :

In the State Chart Diagram, First of all customer as well as admin will have to request for Registration. After completing the registration customer can login to the system. After login a customer can search or view a product or they can view their profile. If they chose a product he can add the product in a shopping cart. They can modify the cart. After competing shopping they can check-out their order by completing the payment.



2.5 Activity Diagram

- **Does the activity narrative represent the Scenario of the activity diagram?**

Yes, the activity narrative represents the scenario of the activity diagram.

- **Does the Activity diagram include the major activities needed to deliver by the system?**

Yes, The Activity diagram includes the major activities needed to deliver by the system.

❖ Case Study:

In the Activity Diagram, First of all customer as well as admin will have to request for Registration. After completing the registration customer can login to the system. After login a customer can search or view a product. If they found the product which they are searching, they can chose a product he can add the product in a shopping cart. They can modify the cart by adding or removing a product. They also can view theirs's shopping cart. After making the shopping cart done they can confirm the order. Then they have to make payment. After the payment done the admin ships the product and make a delivery.

