



## **Object Oriented Analysis and Design**

### **Online Shopping System**

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## **Introduction**

This introduction provides an overview of the **Online shopping system**. The online shopping system facilitate the customer to create an account with guidance, view products, find price and feedback of specific product, availability of product, purchase product and many more.

In this project we will make an OOAD diagrams like use case diagram, class diagram, system sequence diagram and use case description etc, which will be helpful in the implementation of online shopping system.

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. A typical online store enables the customer to browse the firm's range of products and services, view photos or images of the products, along with information about the product specifications, features and prices. Online stores typically enable shoppers to use "search" features to find specific models, brands or items.

Online customers must have access to the Internet and a valid method of payment in order to complete a transaction, such as a credit card, a debit card, or a service such as PayPal. For physical products (e.g., books or clothes), the e-retailer ships the products to the customer; for digital products, such as digital audio files of songs or software, the e-retailer typically sends the file to the customer over the Internet.

## **Advantages of online shopping**

- Save time
- Save fuel
- Save energy
- Comparison of prices
- 24/7 availability
- Hate waiting in lines
- Too ashamed to buy
- Easy to search goods customer wants to buy

## **Use case description**

▪ **Create Account**

<b>Name/Goal</b>	Create Account.
<b>Actor</b>	Customer / end user of product.
<b>Description</b>	User create account in online shopping website.
<b>Preconditions</b>	User have verified email address.
<b>Post conditions</b>	User create account successfully.
<b>Main flow</b>	<ol style="list-style-type: none"> <li>1. User go to official website of online shopping.</li> <li>2. User click to create account button</li> <li>3. User select his/her country</li> <li>4. User entered his/her name.</li> <li>5. User enter his/her email address</li> <li>6. User entered strong password.</li> <li>7. User verify his/her email</li> <li>8. User entered his/her cell number</li> <li>9. User accept term and conditions of website.</li> <li>10. User click to create account button.</li> </ol>
<b>Alternate flow</b>	<p>2a. User can view help to create account.</p> <p>6a. System tell user that the password is strong or not.</p>
<b>Exception flow</b>	<p>1a. User not able to go to official website.</p> <ul style="list-style-type: none"> <li>▪ Due to network issue.</li> <li>▪ May be server is down.</li> </ul> <p>3a. User not find his/her country in list.</p>

	<ul style="list-style-type: none"><li>▪ Due to service not available in that country.</li><li>▪ Due to sanctions on that country.</li></ul>
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## ▪ Login

<b>Name/Goal</b>	Login
<b>Actor</b>	Customer / end user.
<b>Description</b>	User login to online shopping store
<b>Preconditions</b>	User have an account.
<b>Post conditions</b>	User login successfully and dashboard is display.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. User go to official website of online shopping.</li><li>2. Click on login button.</li><li>3. Enter email.</li><li>4. Enter password.</li><li>5. Click on verify and continue button.</li><li>6. System verified email and password.</li><li>7. User's dashboard is displayed.</li></ol>
<b>Alternate flow</b>	<ol style="list-style-type: none"><li>6a. System not verify credentials.<ul style="list-style-type: none"><li>▪ System prompt invalid email or password message.</li><li>▪ User can reset password by clicking on forget password button.</li></ul></li></ol>

## ▪ Logout

<b>Name/Goal</b>	Logout
<b>Actor</b>	Customer / end user.
<b>Description</b>	User wants to logout form website.
<b>Preconditions</b>	User must be login.
<b>Post conditions</b>	User logout successfully and homepage of website is display.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. User go to profile section.</li><li>2. User click to logout.</li><li>3. A message will be displayed “Are you sure you want to logout”.</li><li>4. User click yes button.</li><li>5. User logout and homepage is displayed.</li></ol>
<b>Alternate flow</b>	<ol style="list-style-type: none"><li>3a. Pop up message will be displayed by showing.<ul style="list-style-type: none"><li>▪ Yes, want to logout.</li><li>▪ Remember email and password</li></ul></li></ol>



▪ **View item and price**

<b>Name/Goal</b>	View item and price
<b>Actor</b>	Customer / end user.
<b>Description</b>	User wants to view items along with price in online shopping store.
<b>Preconditions</b>	User go to official website of online shopping.
<b>Post conditions</b>	User view items and price successfully.
<b>Main flow</b>	<ol style="list-style-type: none"> <li>1. User go to official website of online shopping.</li> <li>2. User click on search box to view item.</li> <li>3. Enter the desired product.</li> <li>4. User view list of product along with price successfully.</li> </ol>
<b>Alternate flow</b>	<p>4a. User view list of product along with price and</p> <ul style="list-style-type: none"> <li>▪ Minimum price</li> <li>▪ Maximum price</li> <li>▪ Warranty years</li> <li>▪ Location</li> <li>▪ Popular brands</li> </ul>

▪ **Place order**

<b>Name/Goal</b>	Place order
<b>Actor</b>	Customer / end user.
<b>Description</b>	User wants to place order.
<b>Preconditions</b>	User must be registered and logged in.
<b>Post conditions</b>	User place order successfully.
<b>Main flow</b>	<ol style="list-style-type: none"> <li>1. User go to official website of online shopping.</li> <li>2. Customer logged in successfully to place order.</li> <li>3. Customer checkout the desired product.</li> <li>4. Customer place order in cart.</li> <li>5. Customer enter his/her delivery address.</li> <li>6. Customer provide his/her bank account number.</li> <li>7. Customer click on confirm order button.</li> </ol>
<b>Alternate flow</b>	<p>6a- Customer may choose other ways like</p> <ul style="list-style-type: none"> <li>▪ PayPal</li> </ul> <p>7a- Customer can edit his/her entered details.</p>
<b>Exception flow</b>	<p>4a- Item may not be available.</p> <ol style="list-style-type: none"> <li>1. Message will be displayed to customer about that.</li> </ol>

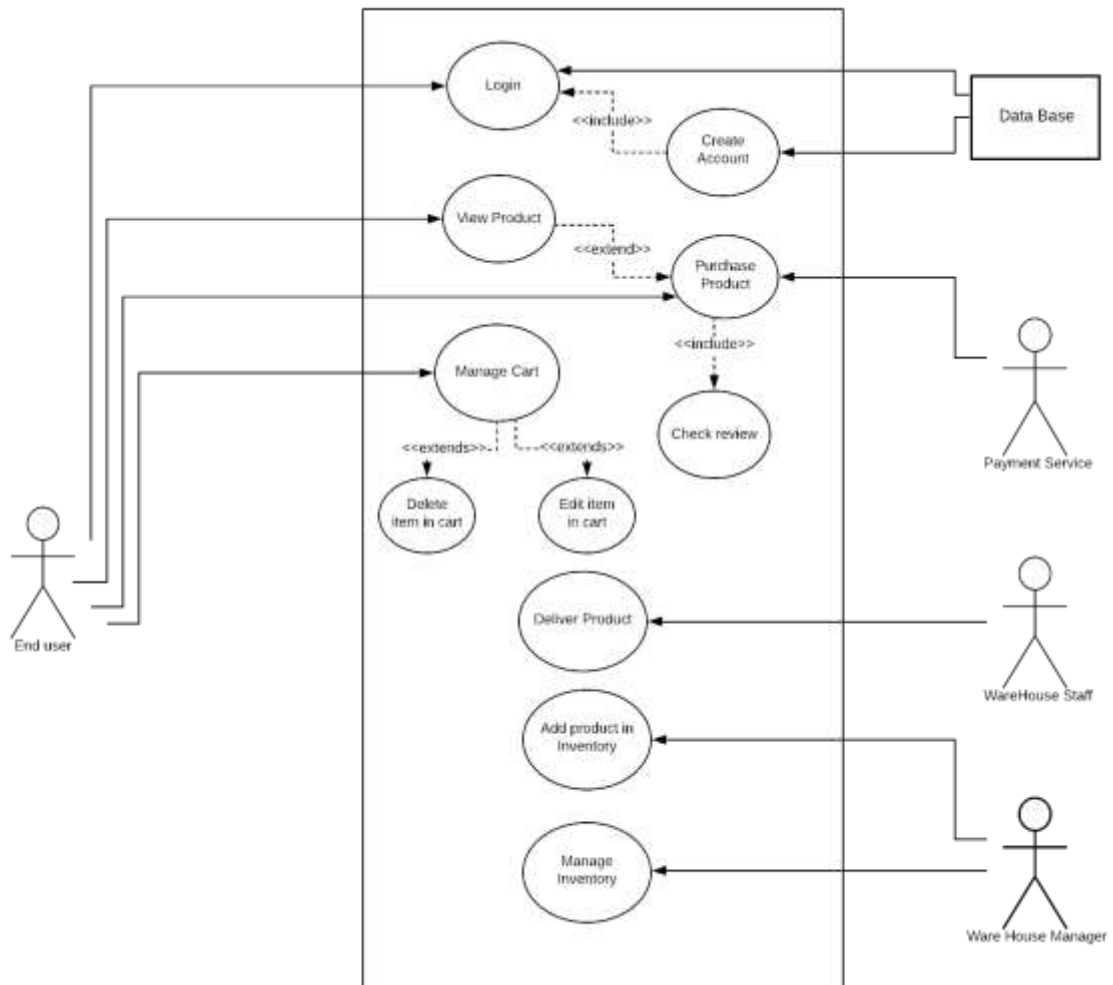
▪ **Refund request**

<b>Name/Goal</b>	Request for refund
<b>Actor</b>	Customer / end user.
<b>Description</b>	Customer can request for refund of money in specific time, if user not like product.
<b>Preconditions</b>	User must be registered and logged in.
<b>Post conditions</b>	User submitted request successfully.
<b>Main flow</b>	<ol style="list-style-type: none"> <li>1. User logged in and go the refund product page.</li> <li>2. User select item type.</li> <li>3. User enter product price.</li> <li>4. User upload receipt receive form online shopping website.</li> <li>5. User answer to this question that <b>why you want to return.</b></li> <li>6. User complete the answer and click on submit application button.</li> <li>7. User receive message that <b>you will be updated after verification.</b></li> </ol>
<b>Alternate flow</b>	<p>1a. On refund page user can also read.</p> <ul style="list-style-type: none"> <li>▪ FAQ of return and refund of product.</li> <li>▪ Refund policy.</li> </ul>

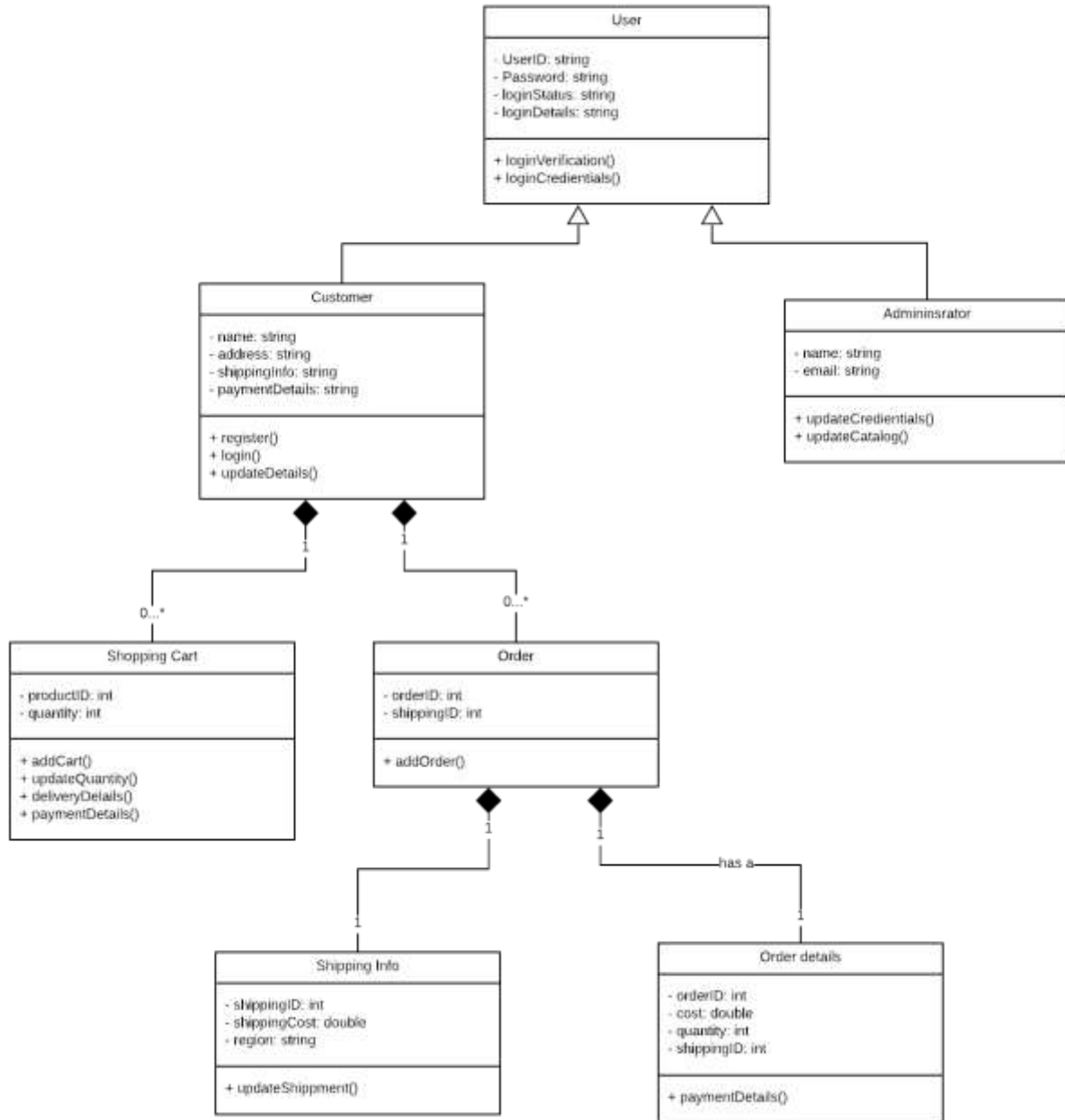
▪ **Feedback**

<b>Name/Goal</b>	Feedback
<b>Actor</b>	Customer / end user.
<b>Description</b>	Customer can give feedback about his/her experience and quality of product that is helpful for other user.
<b>Preconditions</b>	User must be registered and logged in.
<b>Post conditions</b>	User submitted request successfully.
<b>Main flow</b>	<ol style="list-style-type: none"> <li>1. User login successfully.</li> <li>2. User go to specific item to give feedback about that item.</li> <li>3. User go to the feedback section.</li> <li>4. Now user can write his experience and about quality of product in maximum 200 words.</li> <li>5. User write his feedback and click on submit button.</li> <li>6. The feedback will display after admin approval.</li> </ol>
<b>Alternate flow</b>	2a. User can also choice that he can go to the recent purchased product.

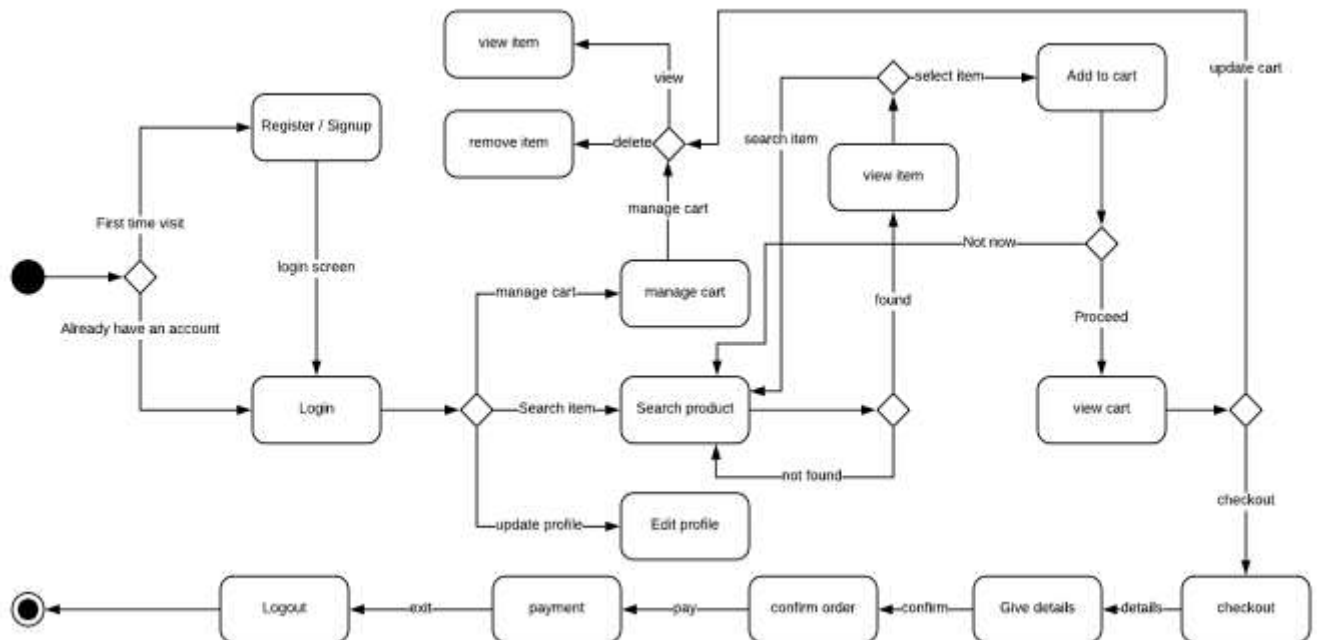
## Use case diagram



## Class Diagram

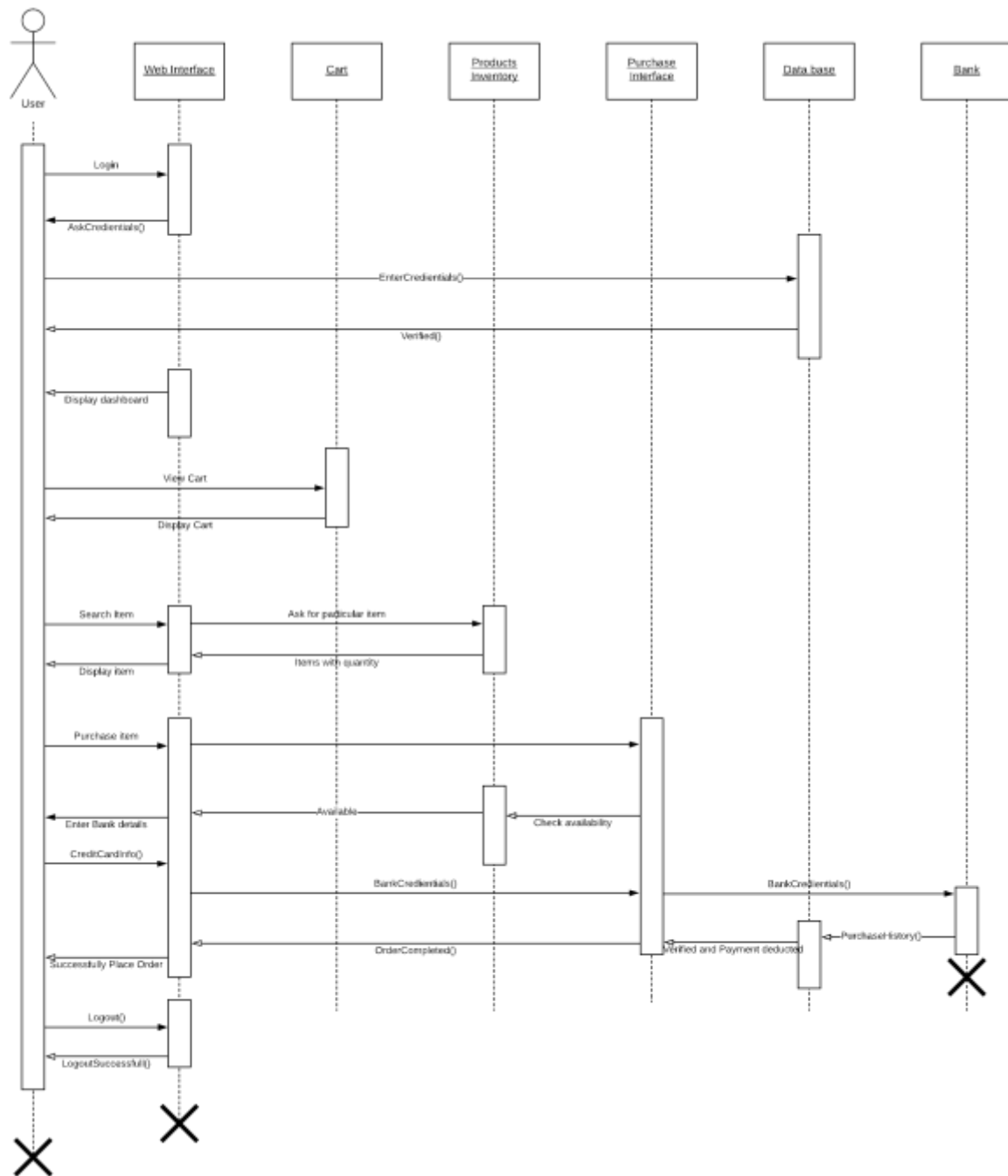


## State diagram



## Interaction diagram

### ■ Sequence diagram





- Collaboration diagram

