COMSATS University Islamabad,

Abbottabad Campus

**Department of Computer Science**

**<Online Book Store>**

**CSC392 Object Oriented Software Engineering**

**Team Leader:** Tayyab Niazi (Reg No.: SP20-BSE-080)

**Group Members:**

Uzair Ramzan (Reg No.: SP20-BSE-038)

Abdur Rehman (Reg No.: SP20-BSE-047)

Muneeb Ullah (Reg No.: SP20-BSE-040)

Muhammad Usama (Reg No.: SP20-BSE-061)

# Chapter 1 Project Proposal

**Note**: Each Group member will have to participate in writing and reviewing.

## Introduction

The main objective of the project is to create an online book store that allows users to search and purchase a book online based on title, author and subject. The user can order their books online through credit card payments or other payment methods.

Using this application, the user can purchase a book online instead of going out to a book store and wasting time. There are many online book stores like Powell’s, Amazon which were designed using Html.

Online Book store is an online application where the customer can purchase books online. The customers can search for a book by its title or author, later can add to the shopping cart and finally purchase using credit card transaction. The user can login using his account details or new customers can set up an account very quickly. They should give the details of their name, contact number and shipping address. The user can also give feedback to a book by giving ratings on a score of five.

The books are divided into many categories based on subject like Fiction Stories, Fairy Tales, English, Architecture etc. The Online Book Store application provides customers with online shopping. A customer can, create, sign in to his account, place items into a shopping cart and purchase using his credit card details.

The Administrator will have additional functionalities when compared to the common user. He can add, delete and update the book details, book categories, member information and also confirm a placed order.

## Vision and Business Case

This project is proposed after discussion and in need of a solution that peoples go to book shops and due to traffic and pollution it consumes so much of their time. We have come up with an idea where peoples will buy online books and will read them in their devices we will also provide home deliveries afterward. The goal for this project is to built a platform where peoples will buy books they like and the sellers on the other hand or shopkeepers will add books on the website to ship the book to their customers.

## 

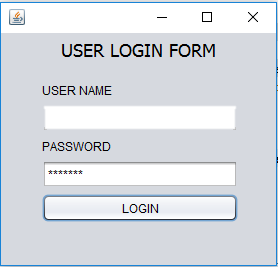
# Chapter 2 Project Prototypes

In this chapter you are supposed to divide your project in different modules and then provide the relevant screens URLs in this chapter. Each URL should point to your cloud storage saved images.

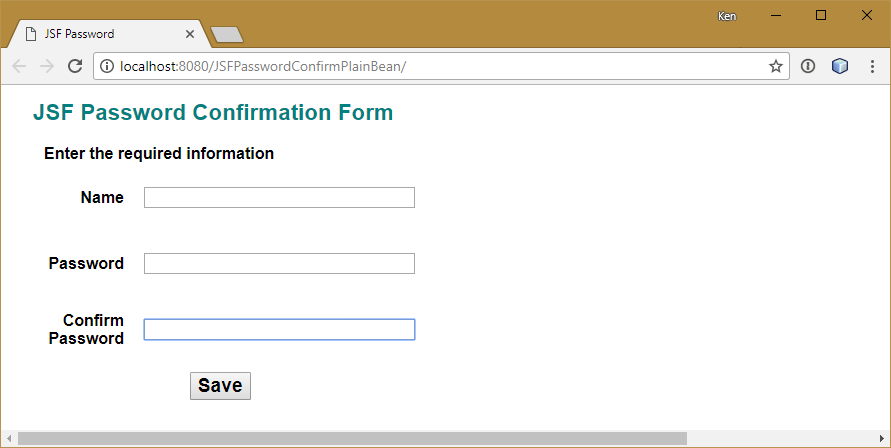
### Registration

### 

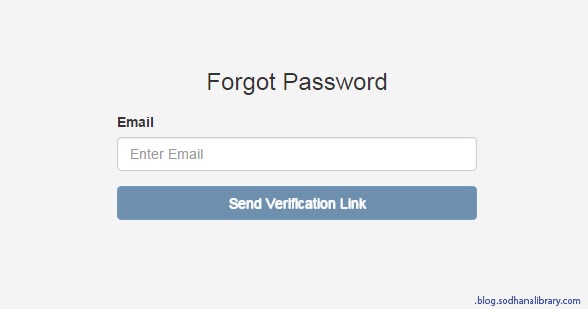
### Login



### Change Password

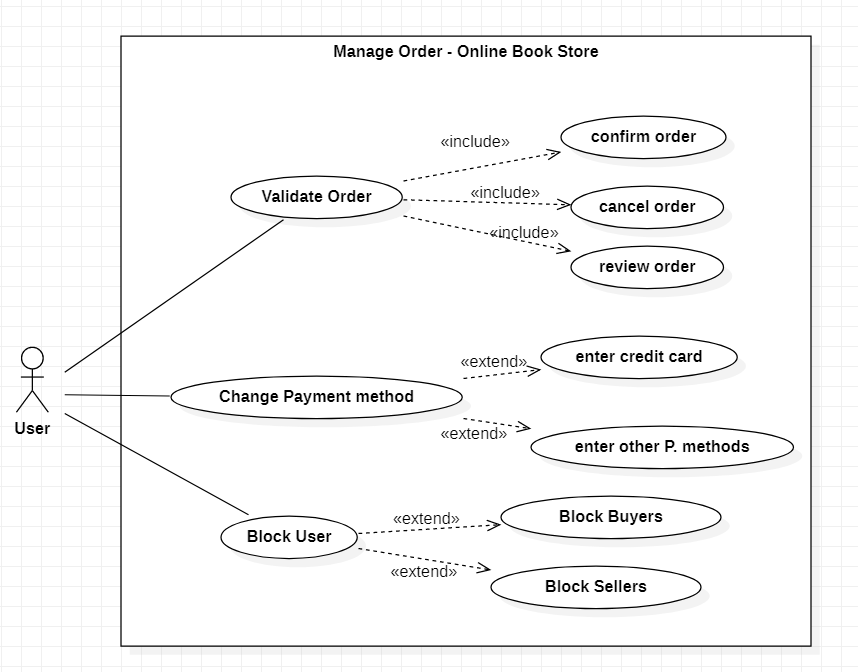


### Forgot Password



**Online Book Store**

**Use Case Diagram: Abdur Rehman**

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**Brief Level Points: Abdur Rehman**

Manage Order

**Brief Case:**

The buyer will search the book and will put it in the cart, then he will make a purchase and the admin will validate the payment details, if the payments details are not correct, the order will go into pending and system will notify the user to replace his/her order.

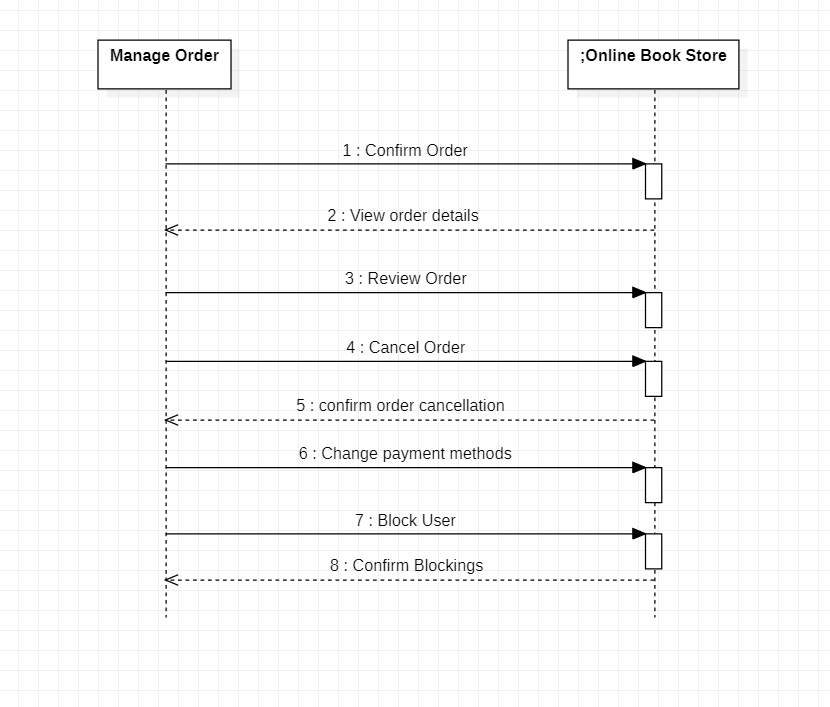
**Fully Dressed Use Case: Abdur Rehman**

|  |  |
| --- | --- |
| Name | Manage Order |
| Scope | Online Book Store |
| Level | Main use case |
| Primary Actor | Buyer |
| Stakeholders and Interests | Buyer: want to place an order.  Seller: provide the order to buyers.  Admin: Manage accounts and other details of users. |
| Preconditions | The buyer will place an order and admin will pass it to the seller, so he can provide the buyer his books. |
| Postconditions | After buyer place an order the admin will make sure to review provided details by buyer and will notify seller. |
| Main Success Scenario | Buyer places an order and admin will validate the order if all the details are correct or not. |
| Extensions | If the provided details are correct, the deal will continue or else order will be cancelled. |
| Special Requirements | Security, Reliability, Data Integrity, Availability. |
| Variations in Technology and Data | step number: possible change in technology or data format |
| Frequency of Occurrence | Continues |
| Miscellaneous | Who can join the app?  Which sellers will be allowed to sell?  What will be the stock availability? |

**Domain Model:**

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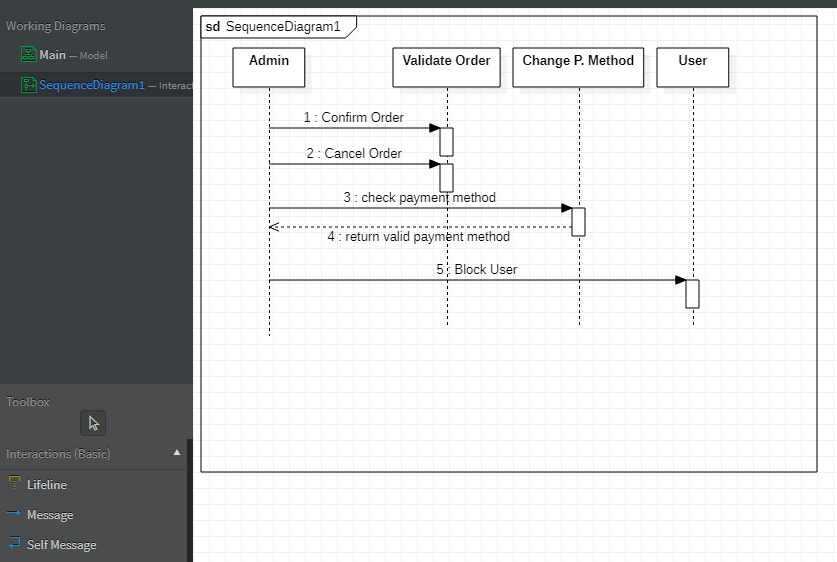
**System Sequential Diagram: Abdur Rehman**

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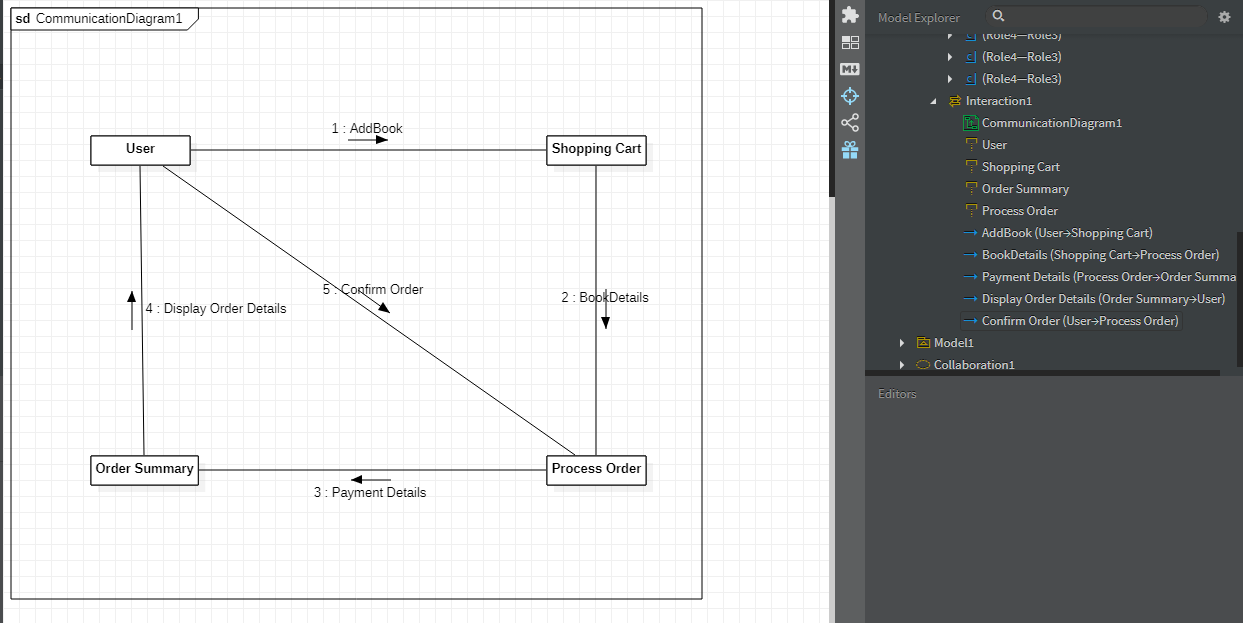
**Operation Contracts: Abdur Rehman**

|  |  |
| --- | --- |
| **Operation** | validateOrder, ChangePaymentMethod, BlockUser |
| **Cross References** | Use Case: Manage Order |
| **Preconditions:** | The buyer places an order. |
| **Postconditions:** | The admin will validate the details of buyer and the payment details, if they are correct the admin will pass the order to seller and the deal will go forward. |

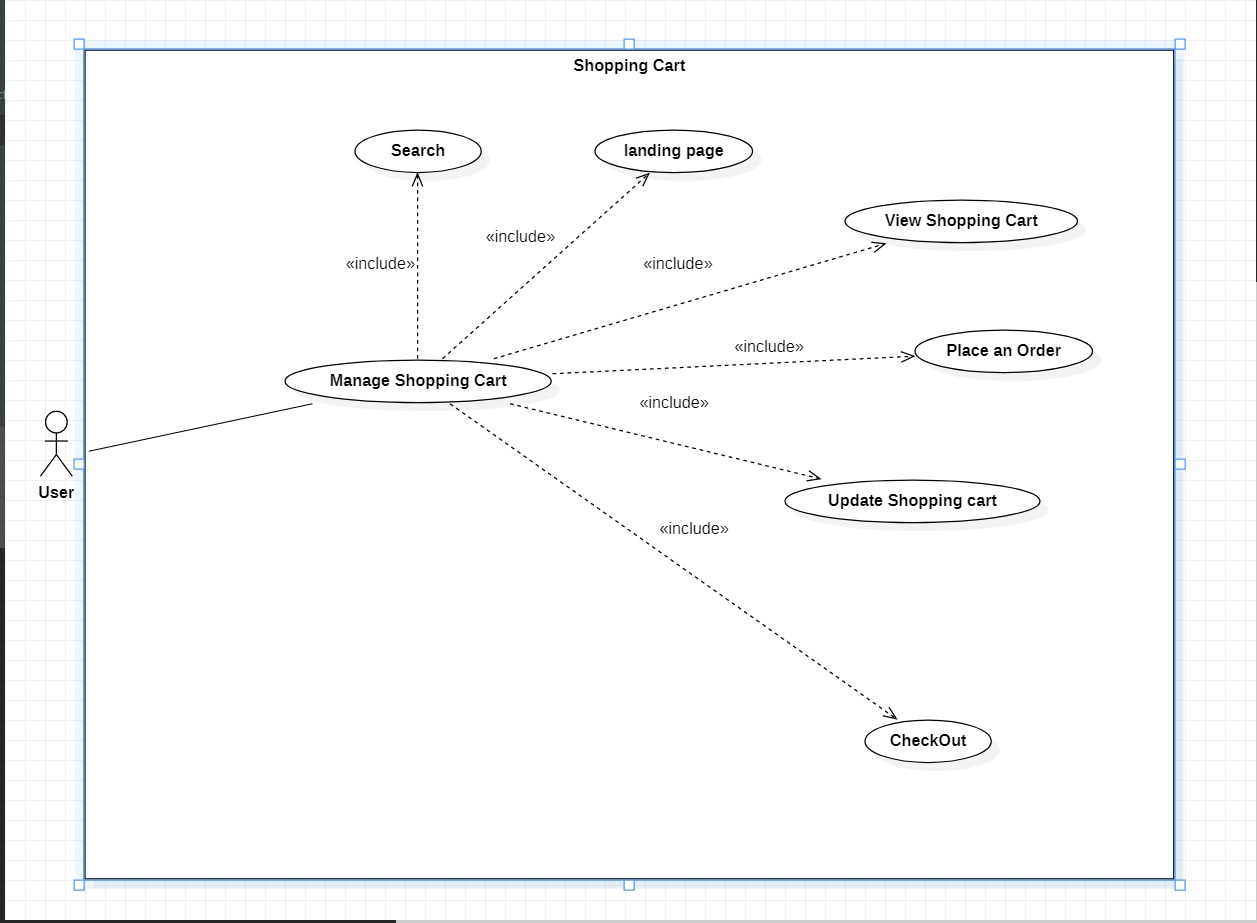
**Sequence Diagram: Abdur Rehman**



**Communication Diagram: Abdur Rehman**



**Use Case Diagram: Muhammad Usama**

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**Brief Case: Muhammad Usama**

Shopping Cart The user can manage a shopping cart which will include all the books he selected. The user can edit, delete and update his shopping cart. A final shopping cart summary is displayed which includes all the items the user selected and the final total cost.

**Manage Shopping Cart 1)**

**Place an order**

**• Purpose:** If the user wants to purchase a book then he can place an order by selecting the add to shopping cart button and entering the quantity required under the book description.

• **Actor:** User

**• Input:** The user will enter the quantity required and click the add to shopping cart button. • Output: The order will be added to the user’s shopping cart**.**

**2) Update Shopping Cart** **• Purpose**: If the user wants to change the quantity of a book or change a book then he can update his shopping cart.

**• Actor**: User

**• Input:** The user will click the details button in the shopping cart summary to edit and update his order details..

**• Output:** The updated order details are reflected in the shopping cart summary**.**

**3) View Shopping Cart**

**• Purpose:** If the user wants to view the items he added to the shopping cart then he can click the shopping cart link at the top of the page.

**• Actor:** User

**• Input:** The user will click the shopping cart link at the top of every page.

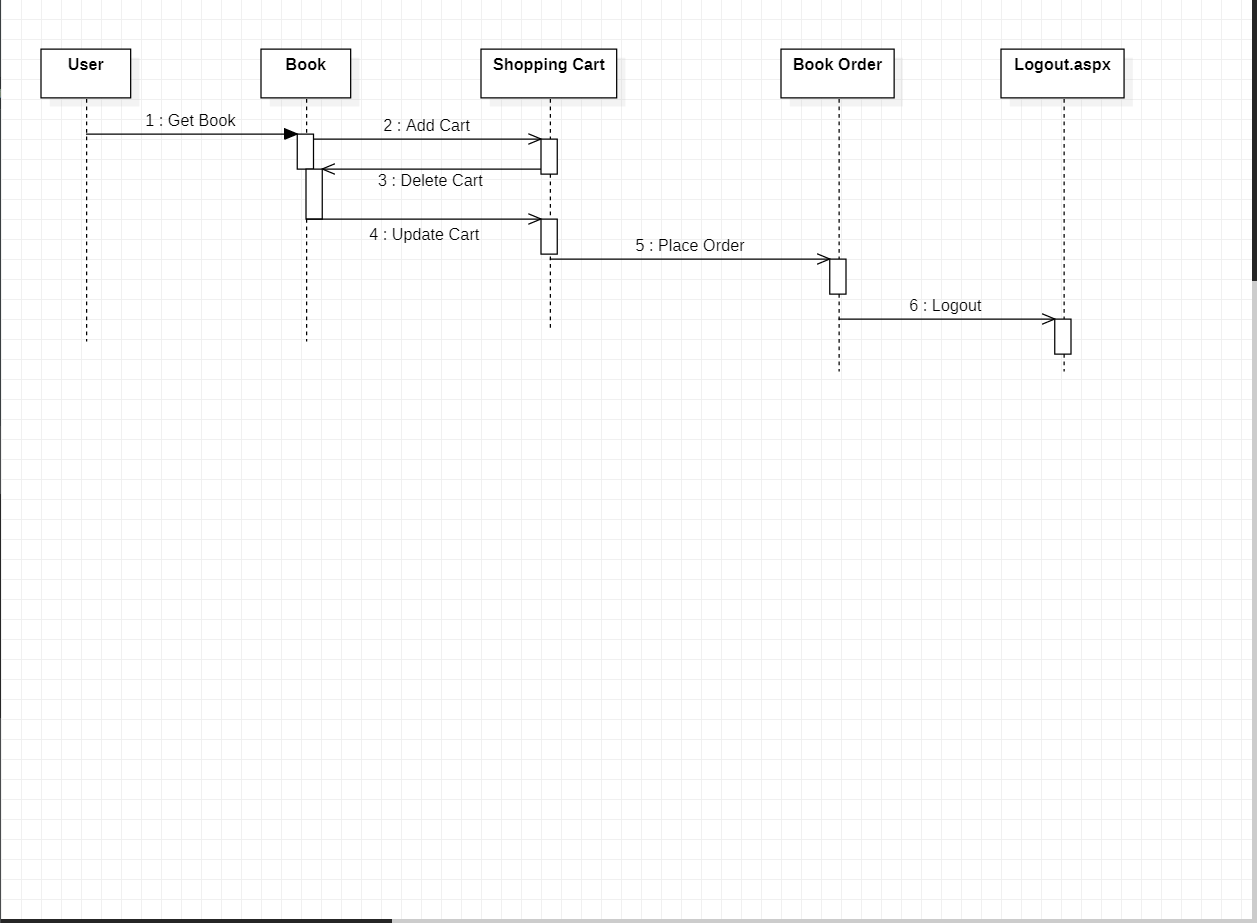
**• Output:** The user’s shopping cart summary will be displayed in the form of a tabular format with all the books and their quantity. A total cost of all the items is also displayed at the bottom.

**Fully Dressed Use Case: Muhammad Usama**

|  |  |
| --- | --- |
| Name | Manage shopping cart |
| Scope | Online book shopping |
| Level | use case |
| Primary Actor | Buyer |
| Stakeholders and Interests | Buyer: want to place an order.  Seller: provide the order to buyers.  Admin: Manage accounts and other details of users. |
| Preconditions | The buyer will place an order and will add it to the cart and when he wants to buy it admin will pass it to the seller, so he can provide the buyer his books. |
| Postconditions | After buyer place an order the admin will make sure to review provided details by buyer and will notify seller. |
| Main Success Scenario | Buyer will add a book in the cart and admin system will chck if its available or not |
| Extensions | If the provided details are correct, the deal will continue or else order will be cancelled. |
| Special Requirements | Security, Reliability, Data Integrity, Availability. |
| Variations in Technology and Data | step number: possible change in technology or data format |
| Frequency of Occurrence | Continues |
| Miscellaneous | Who can join the app?  Which sellers will be allowed to sell?  What will be the stock availability? |

**Domain Model:**

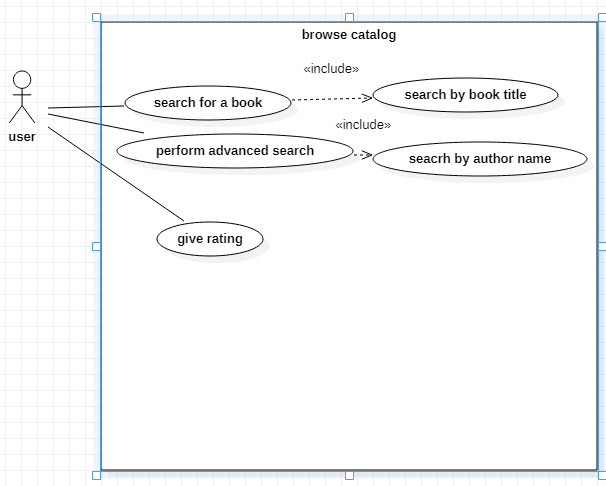
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**System sequential diagram:** **Muhammad Usama** 

**Operation Contracts: Muhammad Usama**

|  |  |
| --- | --- |
| **Operation** | add to cart ,remove from cart, buy, validateOrder, |
| **Cross References** | Use Case: shopping cart |
| **Preconditions:** | The buyer selects an item to buy and add it to cart |
| **Postconditions:** | The admin will validate the details of buyer and the payment details, if they are correct the admin will pass the order to seller and the deal will go forward. |

**Use Case Diagram:Uzair Ramzan**

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**Brief level use cases: Uzair Ramzan**

**Search for a Book :**

A user can search for a book of his choice by selecting category and title. Then a select query is used to retrieve data from the database and display the selected information. The user will select a category and enter title in a text box provided. The system will display the books which matches the selected search criteria. A dataset is created as a result of select query. Later the dataset is binded to the data repeater to display the selected data.

**Perform Advanced Search:**

If the user wants to perform an advanced search he can search for a book of his choice by selecting category, title, author and price range. Then a select query is used to retrieve data from the database and display the selected information. The user will select a category and enter title, author, and price range in a text box provided. The system will display the books which matches the selected search criteria. A dataset is created as a result of select query. Later the dataset is binded to the data repeater to display the selected data.

**Give rating to a book :**

If the user wants to give rating according to his opinion for a book he can select either Excellent, Very good, good, regular or deficient. The final rating of a book will depend on all the individual user rating. The user will select a rating based on his opinion. The system will display the rating of a book and the total number of votes received.

Below is the display for various rating.

\*\*\*\*\* Excellent

\*\*\*\* Very Good

\*\*\* Good

\*\* Regular

\* Deficient

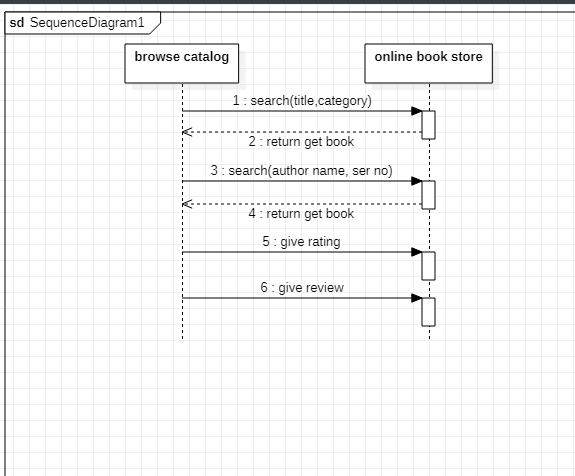
**Fully dressed use cases: Uzair Ramzan**

|  |  |
| --- | --- |
| **Fully dressed use cases** | **Comments** |
| Name | Browse catalog |
| Scope | Online book |
| Level | Main use case |
| Primary actor | Buyer |
| Stakeholder and interests | Buyer: Will search for book |
| Preconditions | Customer visit the website |
| Main success scenario | Buyer search a book and system validate that the given information of book is correct or not |
| Extensions | If the provided details are correct, the search is successful otherwise no content showed |
| Special requirements | Security , reliability , data integrity , availability |
| Technology and data variations list | Step number: possible change in technology or data format |
| Frequency of occurrence | Continues |
| Miscellaneous | Who can search the app?  What will be the stock availability ? |

**Domain model:**

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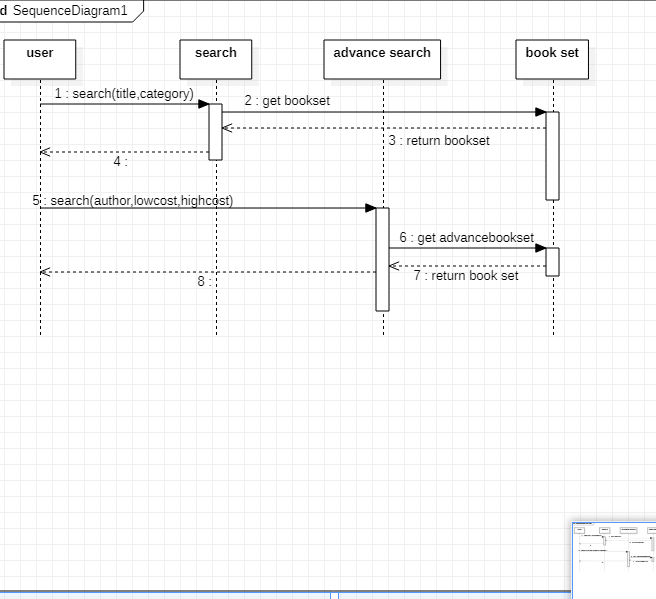
**System sequence diagrams: Uzair Ramzan**

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**Operation contracts: Uzair Ramzan**

|  |  |
| --- | --- |
| **Operation** | search (title, category, serial no). |
| **Cross references** | use case: online book searching. |
| **Preconditions** | customer visit the website. |
| **Postconditions** | customer was entered the name or title of  book.  Result had been displayed.  Customer found the required book. |

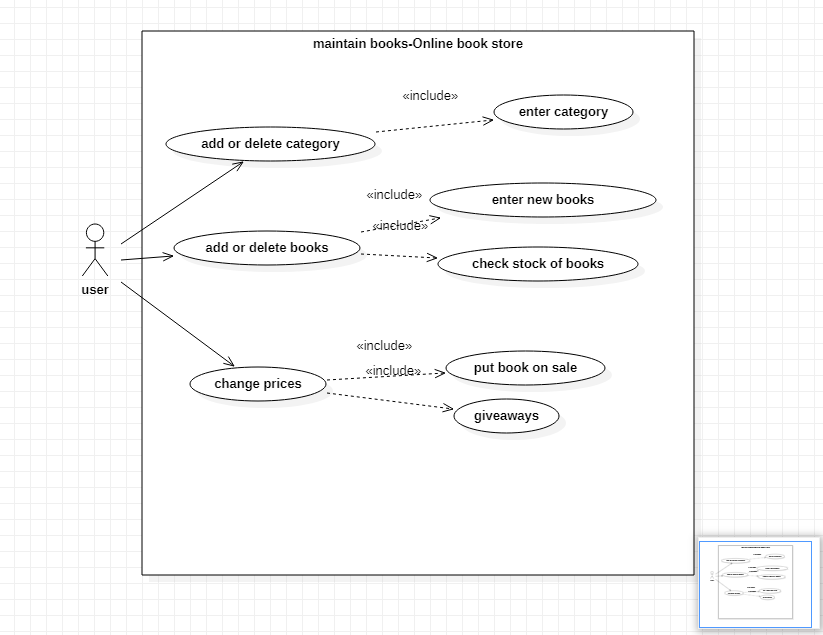
**Sequence diagram:**

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**Name: Muneeb Ullah Asif Khan**

**Reg No: SP20-BSE-040**

**Use case Diagram:**

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**Brief Level Points:**

Maintain books

**Brief case:**

In online book store we have use case of maintain books. In that usecase there is sub usecases like add or delete category of books like according to subjects. There is also another category that is add or delete books according to their availability and in that seller can sell books by entering books, editions and their author names into system and by checking seller can assure that book is in stock. And the other usecase is the price of book. The price of book is set by its seller and he can charge buyer by credit card or other payment methods offer by seller.

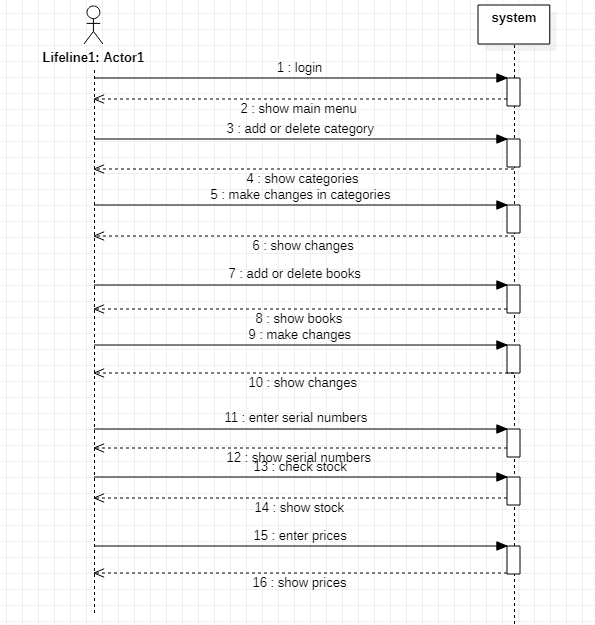
**Fully Dressed Use Case:**

|  |  |
| --- | --- |
| Use case | comments |
| Use case name | Maintain books |
| Scope | Online book store |
| Level | User goal |
| Primary actor | buyer |
| Stakeholders and interests | Seller: wants to seller books.  Buyer: wants to buy books. |
| Preconditions | Buyer and seller must be logged in. |
| postconditions | Record of seller and buyer must be added. |
| Main success scenario | Buyer places an order and admin will validate the order if all the details are correct or not. |
| Extensions | If the provided details are correct order will be cancelled. |
| Special requirements | Reliability, maintainability and usability. |

**Domain Model:**

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**System Sequential Diagram:**

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**Operation Contract:**

|  |  |
| --- | --- |
| **Operation** | Add or delete category, add or delete books and change prices |
| **Cross References** | Use Case: Maintain books |
| **Preconditions:** | Seller added the books. |
| **Postconditions:** | seller was entered the name or title of book.  Result had been displayed. |