Knowledge Store

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Session :	**2015 - 2019**
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BS(HONS)

IN

COMPUTER SCIENCE

DEPARTMENT OF COMPUTER SCIENCE

GC UNIVERSITY LAHORE

Knowledge Store

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Declaration

We Suleman Khan and Zareen Rafique students of **BS(Hons)** in the subject of **Computer Science** session **2015-2019**, hereby declare that the matter printed in this thesis titled, **Knowledge Store** is our own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research Institution etc in Pakistan or abroad.

Date: _____ **Signatures of Deponent**

Abstract

Advancement in technology leads us to web. Older book store management based on manual record keeping. It increases difficulties and gives us less benefit as compare to online store management. We will develop a system that will be based on Online sale purchase of books in Pakistan. That will help customer in finding their desired books which will reduce the effort of the customer.

Contents

Declaration i

Abstract ii

Contents iii

List of Tables v

List of Figures vi

1 Introduction 1
- 1.1 Introduction . . . 1
- 1.2 Purpose . . . 2
- 1.3 Aims Of The Project . . . 2
- 1.4 Scope Of The Project . . . 2
  - 1.4.1 Idea . . . 2
  - 1.4.2 Objectives . . . 3
  - 1.4.3 Issues and Risks . . . 3
  - 1.4.4 High Level Requirements . . . 3
- 1.5 Intended Processes . . . 3
- 1.6 Limitations . . . 4
- 1.7 Literature Review . . . 4
  - 1.7.1 Background . . . 4
  - 1.7.2 Problem Statement . . . 4
  - 1.7.3 Proposed Solution . . . 5
- 1.8 Requirement Elicitation . . . 5
  - 1.8.1 Meetings And Observations . . . 5
  - 1.8.2 BrainStorming . . . 5

2 Requirement Specification 6
- 2.1 Functional Requirements . . . 6
  - 2.1.1 FR-01 USER=CUSTOMER . . . 7
  - 2.1.2 FR-02 USER=SELLER . . . 8
  - 2.1.3 FR-03 ADMIN . . . 8

2.1.4 FR-04EMPLOYEE 9
2.2 Non - Functional Requirements 9
2.2.1 NFR-01 USER INTERFACE 9
2.2.2 NFR-02 SECURITY 10
2.2.3 NFR-03 USABILITY 10
2.2.4 NFR-04 REUSABILITY 10
2.2.5 NFR-05 PERFORMANCE 11
2.2.6 NFR-06 EFFICIENCY 11
2.2.7 NFR-07 DOCUMENTATION 11
2.2.8 NFR-08 MAINTENANCE 12
2.2.9 NFR-09 TESTABILITY 12
2.3 Tools and Technology 12
2.3.1 Back End 12
2.3.2 Front End 12
2.3.3 Database 13
2.3.4 Editor 13
2.3.5 Diagrams 13

3 Project Design **14**
3.1 Methodology 14
3.2 Incremental Methodology 14
3.2.1 Importance Of Incremental Methodology For Our Project . 14
3.3 Architecture Overview 15
3.4 Design Pattern 15
3.4.1 MVC design pattern 15
3.4.2 Importance of MVC Model 15
3.4.3 Implementation 15
3.5 UML Diagrams 16
3.5.1 Use Case Diagram 16
3.6 Sequence Diagrams 38
3.7 Collaboration Diagrams 45
3.8 Activity Diagrams 53
3.9 Data Representation Diagram 60
3.9.1 ER Diagram 60
3.9.1.1 Description 62
3.10 Process Flow Diagram 63
3.11 Design Models 64
3.11.1 Data flow Diagrams 64

4 Implementation and Evaluation **67**
4.1 User Interface 67

List of Tables

2.1 Functional requirements: Customer 7
2.2 Functional requirements: Seller 8
2.3 Functional requirements: Admin 8
2.4 Functional requirements: Employee 9
2.5 Non-Functional requirements: User interface 9
2.6 Non-Functional requirements: Security 10
2.7 Non-Functional requirements: Usability 10
2.8 Non-Functional requirements: Reusability 10
2.9 Non-Functional requirements: Performance 11
2.10 Non-Functional requirements: Efficiency 11
2.11 Non-Functional requirements: Documentation 11
2.12 Non-Functional requirements: Maintenance 12
2.13 Non-Functional requirements: Testability 12

3.1 Customer Registration 17
3.2 Customer Login 18
3.3 Customer View His Profile 19
3.4 Customer Update His Profile 20
3.5 Customer Logout 21
3.6 Customer Visit Home Page 22
3.7 Customer Adds Book To wish list 23
3.8 Add Book To The Shopping Cart 24
3.9 Search Book 25
3.10 View Book 26
3.11 Place Order 27
3.12 View Shopping Cart 28
3.13 Update Shopping Cart 29
3.14 Admin Login 30
3.15 Admin Can Adds Book 31
3.16 Admin Can Delete book 32
3.17 Admin Can Add Category 33
3.18 Admin Can Delete category 34
3.19 Admin Can Manage Order 35
3.20 Admin Can Delete Customer 36
3.21 Admin Logout 37

List of Figures

3.1 Use case Diagram . . . 16
3.2 Customer Sign Up . . . 38
3.3 Customer Sign In . . . 39
3.4 Visit Home Page . . . 39
3.5 View Profile . . . 40
3.6 Update Profile . . . 40
3.7 Search Book . . . 41
3.8 Book Aad To The Cart . . . 41
3.9 View Shopping Cart . . . 42
3.10 Update Shopping Cart . . . 42
3.11 Shopping Cart Order . . . 43
3.12 Wishlist The Book . . . 44
3.13 Admin Sign In . . . 44
3.14 Admin Tasks . . . 45
3.15 Customer Sign Up . . . 46
3.16 Customer Sign In . . . 46
3.17 Visit Home Page . . . 47
3.18 View Profile . . . 47
3.19 Update Profile . . . 48
3.20 Search Book . . . 48
3.21 Add Book To The Cart . . . 49
3.22 View Shopping Cart . . . 49
3.23 Update Shopping Cart . . . 50
3.24 Order . . . 51
3.25 Wishlist . . . 51
3.26 Admin Sign In . . . 52
3.27 Admin Tasks . . . 52
3.28 Customer Signup And Login . . . 53
3.29 Search Book . . . 54
3.30 Add Book To Cart . . . 54
3.31 Order Of Shopping Cart . . . 55
3.32 Book Add To WishList . . . 55
3.33 View profile . . . 56
3.34 Update Profile . . . 56
3.35 View Shopping Cart . . . 57

3.36 Update Shopping Cart 57
3.37 Admin Login 58
3.38 Delete Customer 58
3.39 Add Or Delete Category 59
3.40 Add Or Delete Book 59
3.41 ERD 61
3.42 Process flow Activity Diagram 63
3.43 Level 0 64
3.44 Admin Level 1 65
3.45 Customer Level 1 65
3.46 Customer Login Level2 66

4.1 Splash Screen 68
4.2 Customer Sign Up Screen 69
4.3 Customer Sign In Screen 70
4.4 Home Page Screen 71
4.5 View Book Screen 72
4.6 Shopping Cart Screen 73

Chapter 1

Introduction

1.1 Introduction

Knowledge Store is used to buy and sell books online. Systems like amazon and chegg offers the similar services in other parts of the world. In Pakistan we can find the book only in book stores. It takes great effort to find a bookstore that has the right book with the desired edition. So there is a need of online bookstore so that users can buy and sell thier books easily.

Knowledge Store is a system that will allow the users to buy and sell their books Online. We will provide users mobile application through which they can search books by entering ISBN, Author Name and Publisher. After finding the books they can add it to wish list if they want to buy it later and also they can add books to shopping cart so that they can buy it. Book will deliver on user address after manual confirmation by the delivery boy.

Users will also be able to sale their used books to knowledge store. Before buying the books we will make sure book condition is according to certain standard. User will be able to see these standards when user will sale book to us.

1.2 Purpose

The basic purpose of our Online Book Store is to provide a platform to the user for buying and selling books online. User can buy used and new books and they can also sale their used books. We will deliver the books to the user address. Main purpose of this project is to provide user facility to buy books with ease. We will provide users certain features so that user can explore more books in there interested categories. We will provide discounts on different occasions so that we can engage more users.

1.3 Aims Of The Project

- The main aim of this project is to provide user facility to buy books online with ease.
- User will be able to sale their used books.
- Saving user time to find the right books.
- Order Tracking .

1.4 Scope Of The Project

1.4.1 Idea

Basic Idea for online book store came to mind when we need a book that we were unable to find in local stores and as well international seller were not delivering these books to Pakistan and that was a problem so we need a solution for this problem as a solution we suggested online book store application that will not only manage books but also users will be able to buy and sell their books online.

1.4.2 Objectives

We will give opportunity to buyer to sale used books to us. Using our application user can buy books stay at home instead of going out to book store.The objective of this project is to build a system through which user is allowed to sell and buy books online via internet. We will show the relevant books to the user so that he can buy these books. User will be able to buy book through mobile application.

1.4.3 Issues and Risks

- There is a risk in this idea,might user orders a book and then refuses to buy.
- User can place a false order.
- The book sent by user is below our standards.

1.4.4 High Level Requirements

- Software would be developed under increments.
- Every functionality will be enhanced which were kept under consideration during idea elicitation.
- Must have high performance systems to run a stable browser.
- High level Network required for flawless proceeding.

1.5 Intended Processes

The intended processes that were kept in mind during development:

- Requirement Gathering.
- Planning.
- Execution.

- Performance.
- Controlling and Testing.

1.6 Limitations

- To use our system user must be familiar with Computing devices(Mobile/Computer).
- No online payment.
- No book store.
- Slower internet might effect user transaction.

1.7 Literature Review

1.7.1 Background

The idea of first online shopping system was proposed by Michael Aldrich. Gateshead SIS/Tesco is the first B2C online shopping system. Book Stacks Unlimited started selling books online through credit card processing. Ebay amazon and Alibaba are the largest online shopping systems.In Pakistan we have daraz as online shopping system. There is still need of online book store systems.

1.7.2 Problem Statement

In Pakistan when we need to buy a book we only have the option to find a book in store. But it takes great effort to find the right book store that has the desired book. So we need online book stores in Pakistan. We are proposing a solution to this problem.

1.7.3 Proposed Solution

We are developing a system named Knowledge Store which will provide all facilities of online book purchasing in Pakistan. We will allow customers to sale their used books to us. We will deliver books to the customers.

1.8 Requirement Elicitation

We gathered the requirements of our projects through:

1.8.1 Meetings And Observations

We conducted meetings with our project supervisor where we discussed the business model of the project. There was no exact stake holder for this project. All the requirements are based on the observation methods and meetings with our instructor.We observed the different prebuilt system's functionality to understand the problem.We did a great search on international market for such systems to provide market competitive solution.

1.8.2 BrainStorming

Chapter 2

Requirement Specification

2.1 Functional Requirements

All those requirements which are required in functionality are given below.

2.1.1 FR-01 USER=CUSTOMER

FR-01 USER=CUSTOMER

01	User should be allowed to update profile details.
02	User should be able to search books.
03	User should be able to view books images.
04	User should be able to add book to wish list.
05	User should be able to remove book from wish list.
06	User should be able to place order against items in cart.
07	User should be able to see previous orders.
08	User should be able to add book to Shopping cart.
09	User should be able to remove book from Shopping cart.
10	User should be able to register.
11	User should be able to login.
12	User should be able to view profile details.
13	User should be able to logout.
14	User should be able to visit home page.
15	User should be able to view book details.
16	User should be able to place order.

TABLE 2.1: Functional requirements: Customer

2.1.2 FR-02 USER=SELLER

FR-02 USER=SELLER

01	User should be able to open selling page.
02	User should be able to add book details.
03	User should be able to see book standards that must meet to sell the book.

TABLE 2.2: Functional requirements: Seller

2.1.3 FR-03 ADMIN

FR-03 ADMIN

01	Admin should be able to check the book lists.
02	Admin should be able to activate and deactivate fake orders.
03	Admin should be able to login.
04	Admin should be able to add category.
05	Admin should be able to remove category.
06	Admin should be able to add book.
07	Admin should be able to remove book.
08	Admin should be able to manage orders.
09	Admin should be able to delete customer.
10	Admin should be able to logout.

TABLE 2.3: Functional requirements: Admin

2.1.4 FR-04EMPLOYEE

FR-04 EMPLOYEE

01	Employee should be able to deliver order to customer and should be able to receive payment from customer.

TABLE 2.4: Functional requirements: Employee

2.2 Non - Functional Requirements

Those requirements which do not have any concern with functionality but demanded by the stake holder are given below.

2.2.1 NFR-01 USER INTERFACE

NFR-01 USER INTERFACE

01	User Interface of the application should be user friendly.
02	User Interface of the application should be attractive and easier in use.

TABLE 2.5: Non-Functional requirements: User interface

2.2.2 NFR-02 SECURITY

NFR-02 SECURITY

01	All the transactions must be secure.
02	System should store encrypted passwords.
03	Physical storage should be secure.

Table 2.6: Non-Functional requirements: Security

2.2.3 NFR-03 USABILITY

NFR-03 USABILITY

01	Application should be easy to use.
02	Application should have a great user experience.
03	Application should have a simple user interface.

Table 2.7: Non-Functional requirements: Usability

2.2.4 NFR-04 REUSABILITY

NFR-04 REUSABILITY

01	Design of the code should be according to standards. It should be easy to maintain.

Table 2.8: Non-Functional requirements: Reusability

2.2.5 NFR-05 PERFORMANCE

NFR-05 PERFORMANCE

01	Search results should show as soon as possible.
02	Application should not crash.
03	Application should not lag.

Table 2.9: Non-Functional requirements: Performance

2.2.6 NFR-06 EFFICIENCY

NFR-06 EFFICIENCY

01	Minimum hardware resources like RAM and Hardisk should be used.

Table 2.10: Non-Functional requirements: Efficiency

2.2.7 NFR-07 DOCUMENTATION

NFR-07 DOCUMENTATION

01	Each aspect of the project should be documented so that it is easy to understand.

Table 2.11: Non-Functional requirements: Documentation

2.2.8 NFR-08 MAINTENANCE

NFR-08 MAINTENANCE

01	System should not have any critical bugs .
02	There should be automatic bug relief system.

Table 2.12: Non-Functional requirements: Maintenance

2.2.9 NFR-09 TESTABILITY

NFR-09 TESTABILITY

01	All the stages of the System should be tested before deployment.
02	Different components of the system should be tested.

Table 2.13: Non-Functional requirements: Testability

2.3 Tools and Technology

The technologies and tools used in our system are given below.

2.3.1 Back End

For server side development we used Django Framework(python).

2.3.2 Front End

For mobile application we used Android SDK.

2.3.3 Database

Database is Sqlite.

2.3.4 Editor

Tool used for coding is "Sublime".

2.3.5 Diagrams

Tool used for diagrams is "Star UML".

Chapter 3

Project Design

3.1 Methodology

We selected methodology to build our final artifact is incremental so that we can implement features in different increments.

3.2 Incremental Methodology

We used incremental methodology to build our system in different increments. Initially our system will only consists of books as a product but later on we will add other items like magazines,novels etc to project. As we are working in pair programming so that we can also learn from each other we will work in different modules as an increment.

3.2.1 Importance Of Incremental Methodology For Our Project

Incremental methodology helps us in implementing our projects in different increments. We don't have all requirements at initial stage but we can implement changes in incremental way. Some of the benefits of incremental Methodology are

1. We can see our project at initial stage.

2. It's easy to change requirements.

3. Errors are easy to identified.

3.3 Architecture Overview

Server includes the database and web services. Presentation layer of the server side code will fetch the records from the database and then it will converts records to JSON and will be returned to the end user through defined end points. Client application will show the received data to end user.

3.4 Design Pattern

3.4.1 MVC design pattern

MVC consists of three layers: Model, View, Controller. Model layer consists of the database, where we write all the logic related to database. View layer decides how we will display the data to the end user. Controller layer is the place where we write all the application logic.

3.4.2 Importance of MVC Model

MVC helps us writing clean and modifiable code. Implementing an architecture like MVC helps us in the maintenance of the application. One change does not always effect all the remaining code by implementing this design pattern.

3.4.3 Implementation

We implemented this model in our project. Model layer where we wrote all the database tables. API is written in View and Controller layer of the application. Admin panel is written in View and Controller layer.

3.5 UML Diagrams

3.5.1 Use Case Diagram

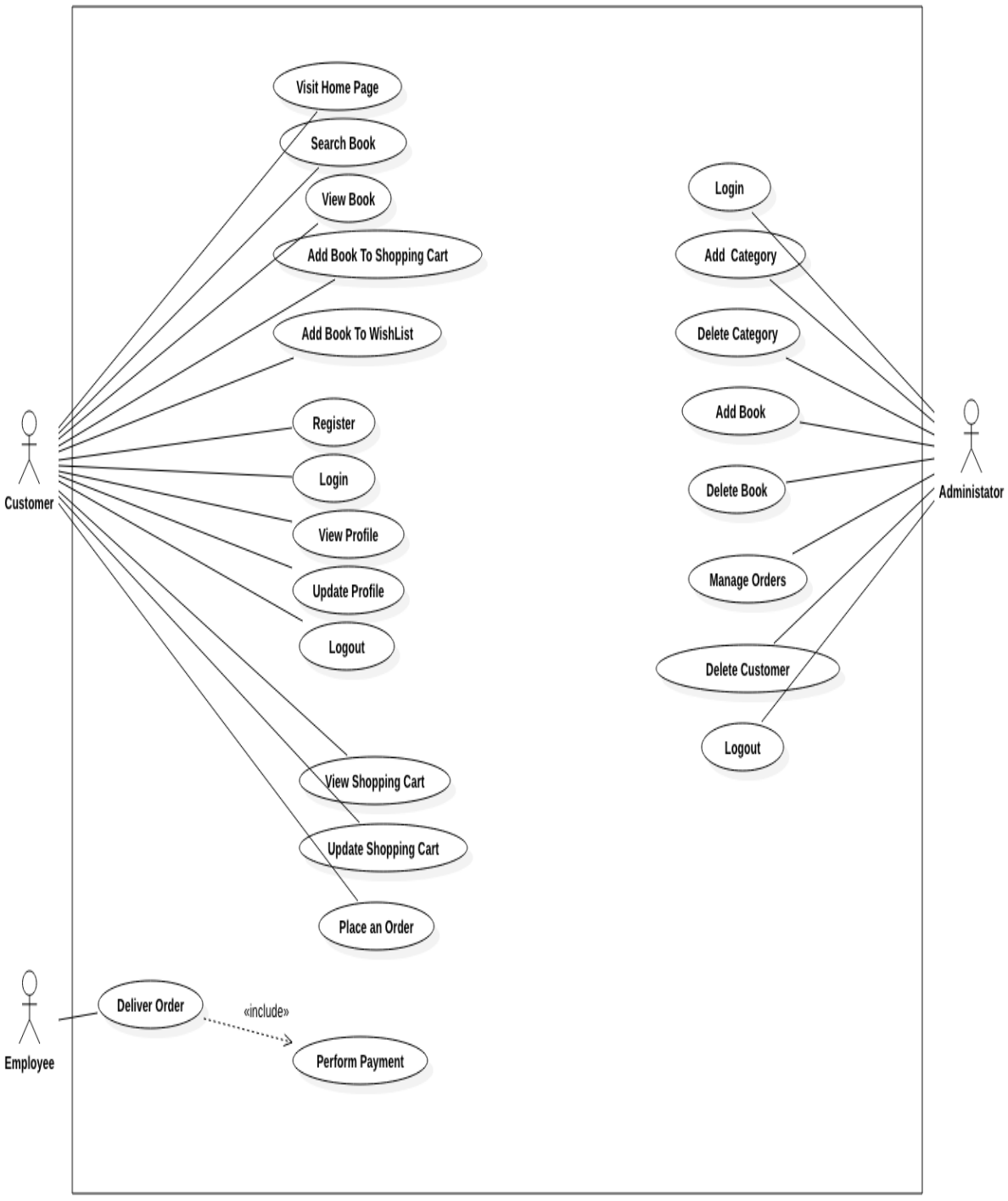

FIGURE 3.1: Use case Diagram

Table 3.1: Customer Registration

Use Case ID	UC-01
Use Case Name	Register
Description	Customer will be registered in our system and customer profile will be created.
Purpose	Register the customer.
Actor	Unregistered customer
Pre-condition	1. Email entered by customer should be unique. 2. Email should be authorized.
Post-condition	1. After process of registration , if email provided by customer is authorized a new account must be created.
Priority	Essential.
Basic Flow	1. This use case activates when customer press the Sign up button. 2. Email and password provided by customer will validate . 3. Customer will press the submit button . 4. If authorized customer , the system will move to the customer logged in session.
Exception	• Email is not validated at step 2. • Customer already exists at step 3.
Frequency of Use	Used only once time by customer.

Table 3.2: Customer Login

Use Case ID	UC-02
Use Case Name	Login
Description	Authorized customer logged in by providing the required detail .
Purpose	It enable customer after logged in to use the system
Actor	Registered customer
Pre-condition	1. Customer should not logged in already. 2. Customer should be authorized one .
Post-condition	1. Home page must display to the customer .
Priority	Essential.
Basic Flow	1. This Use case activates when customer press the Sign in button. 2. Customer will enter email and password. 3. Customer will press submit button. 4. The system will move to the home page .
Exception	If customer entered wrong required detail then system will show an exception at step 2.
Frequency of Use	Many times whenever customer wants to login.

Table 3.3: Customer View His Profile

Use Case ID	UC-03
Use Case Name	View Profile
Description	Authorized customer will logged in by entering the required detail and can view his profile.
Purpose	This allow the customer to view his profile .
Actor	Registered Customer
Pre-condition	1. Customer should be logged in already.
Post-condition	1. Customer must be provided with his profile data and information.
Priority	Low.
Basic Flow	1. This use case activates when customer press the view profile icon. 2. The system will moved to the profile panel.
Exception	No Exception.
Frequency of Use	Many times whenever customer wants to view his profile.

Table 3.4: Customer Update His Profile

Use Case ID	UC-04
Use Case Name	Update Profile
Description	Authorized customer will logged in by entering the required detail and can update his profile data and information.
Purpose	It will allows the customer to update his profile.
Actor	Registered Customer
Pre-condition	1. Customer should be logged in already.
Post-condition	1. Customer must be provided with his updated information.
Priority	Low.
Basic Flow	1. This use case activates when customer press the update profile icon. 2. The system will moved to the update profile panel. 3. Customer will submit the updated profile information.
Exception	If customer entered wrong required detail then system will show an exception at step 3.
Frequency of Use	Many times whenever customer wants to update his profile.

Table 3.5: Customer Logout

Use Case ID	UC-05
Use Case Name	Logout
Description	Customer can logout when he wants.
Purpose	It will allow customer to exit from his account.
Actor	Logged in Customer
Pre-condition	1. Customer should logged in.
Post-condition	1. Customer must be out of his account features.
Priority	Low.
Basic Flow	1. This use case activates when customer press logout. 2. Customer will be logged out from his account.
Exception	No exception
Frequency of Use	Many times whenever customer wants to logout.

Table 3.6: Customer Visit Home Page

Use Case ID	UC-06
Use Case Name	Visit Home Page
Description	Customer can visit home page any time.
Purpose	It will allows customer to visit home page.
Actor	Customer
Pre-condition	1. Internet connection should be made properly.
Post-condition	1. Home page should displayed to user.
Priority	High.
Basic Flow	1. This use case activates when customer open app and wants to visit home page. 2. The system will moved to the home page.
Exception	If internet connection is not made properly then system generates an exception at step 2.
Frequency of Use	Many times whenever customer wants to visit home page.

Table 3.7: Customer Adds Book To wish list

Use Case ID	UC-07
Use Case Name	Add Book To Wish List
Description	After searching desired book customer can add book to Wish List for buying it in future.
Purpose	It will allows the customers to add book to wish list.
Actor	Registered Customer
Pre-condition	1. Internet connection should be made properly. 2. Customer should logged in.
Post-condition	1. Book must be added in list of customer's wish list.
Priority	High.
Basic Flow	1. This use case activates when customer wants to add book to wish list. 2. The customer will add book in list.
Exception	No exception
Frequency of Use	Many times whenever customer wants to add book.

Table 3.8: Add Book To The Shopping Cart

Use Case ID	UC-08
Use Case Name	Add Book To Shopping Cart
Description	Customer will add books to the shopping cart to purchase.
Purpose	It will allows the customers to add books to cart and able customer to place order against shopping cart.
Actor	Registered Customer
Pre-condition	1. Customer should be logged in . 2. Internet connection should be made properly.
Post-condition	1. Book should be appear in shopping cart panel.
Priority	High.
Basic Flow	1. This use case activates when customer wants to add book to shopping cart. 2. The system will add the book to the shopping cart when customer press add to cart .
Exception	No exception
Frequency of Use	Many times whenever customers wants to add book to the cart.

Table 3.9: Search Book

Use Case ID	UC-09
Use Case Name	Search Book.
Description	Customer can search book and then view the desired book.
Purpose	Customer will be able to search books.
Actor	Customer
Pre-condition	1. Internet should be connected.
Post-condition	1. Customer must be able to see the search book.
Priority	High.
Basic Flow	1. It begins when the customer click on the search bar. 2. User will enter book Title ,Author or ISBN No to search the book.
Exception	May be customer search that book which will not exist so exception will occur at step 2.
Frequency of Use	Many times when the user wants to search the books.

Table 3.10: View Book

Use Case ID	UC-10
Use Case Name	View Book.
Description	User can view the book by clicking the book from home page. Or after searching the book user can view the book details. User will be able to see book image description, author and price.
Purpose	It will allow the user to view the detail of the selected book.
Actor	Customer
Pre-condition	1. Internet should be connected . 2. User is either selecting it from home page or from the search book page.
Post-condition	1. Selected book detail should be displayed.
Priority	High.
Basic Flow	1. User will select the book. 2. User will see the detail of the book.
Exception	No exception
Frequency of Use	Many time whenever customer wants to see the book.

Table 3.11: Place Order

Use Case ID	UC-11
Use Case Name	Place An Order
Description	Customer can place order against desired book .
Purpose	It will allows the customer to place an order against desired book .
Actor	Registerd Customer
Pre-condition	1. Customer should be logged in . 2. Internet connection should be made properly.
Post-condition	1. Order must be placed.
Priority	High.
Basic Flow	1. This use case activates when customer place an order .
Exception	No Exception
Frequency of Use	Many times whenever customer place an order.

Table 3.12: View Shopping Cart

Use Case ID	UC-12
Use Case Name	View Shopping Cart
Description	Logged in customer can view his shopping cart information i:e it contain books or not.
Purpose	It will allow customer to view shopping cart.
Actor	Registered Customer .
Pre-condition	1. Internet connection should be made properly. 2. Customer should be logged in.
Post-condition	1. Shopping cart information should be provided to customer.
Priority	High.
Basic Flow	1. This use case activates when customer wants to view shopping cart. 2. The system will moved towards the shopping cart panel.
Exception	No exception
Frequency of Use	Many times whenever customer wants to view his shopping cart.

Table 3.13: Update Shopping Cart

Use Case ID	UC-13
Use Case Name	Update Shopping Cart.
Description	Logged in customer can update his shopping cart i:e wants to add /delete book or to empty the cart .
Purpose	It will allow customer to update his shopping cart.
Actor	Registered Customer.
Pre-condition	1. User should be logged in. 2. Internet connection should be made properly.
Post-condition	1. Customer should be provided with updated shopping cart.
Priority	High.
Basic Flow	1. This use case activates when customer update his shopping cart. 2. The system will update the shopping cart.
Exception	No exception.
Frequency of Use	Many times whenever customer update his shopping cart.

Table 3.14: Admin Login

Use Case ID	UC-14
Use Case Name	Login
Description	Admin will login in to handle the system i:e add category ,delete user etc.
Purpose	It enable admin after logged in to handle the system .
Actor	Admin
Pre-condition	1. Admin should not logged in already.
Post-condition	1. Admin will logged in . 2. Admin panel will be displayed to the admin .
Priority	Essential.
Basic Flow	1. This Use case activates when admin press the Sign in button. 2. The system will move to the admin panel .
Exception	If admin entered wrong required detail then system will show an exception at step 1.
Frequency of Use	Many times whenever customer wants to login.

Table 3.15: Admin Can Adds Book

Use Case ID	UC-15
Use Case Name	Add Book.
Description	Admin will add the book record in to the database.
Purpose	It will allow admin to add the book in the system so that knowledge store can sell this book .
Actor	Admin
Pre-condition	1. Admin should logged in.
Post-condition	1. New book must be added into the book list.
Priority	Medium
Basic Flow	1. Admin will open the book screen. 2. Admin will add the book detail.
Exception	No exception
Frequency of Use	Many times a day when the admin needs to add the new book.

Table 3.16: Admin Can Delete book

Use Case ID	UC-16
Use Case Name	Delete Book.
Description	Admin will delete book from the list of books knowledge store have.
Purpose	Admin will use this when there is need to delete the book.
Primary Actor	Admin
Pre-condition	1. Book should be in the database.
Post-condition	1. Book should be deleted from the list of book .
Priority	High.
Basic Flow	1. Admin will select the book to delete. 2. Admin will delete the book.
Exception	No exception
Frequency of Use	Many times a day when the admin wants to delete book.

Table 3.17: Admin Can Add Category

Use Case ID	UC-17
Use Case Name	Add Category.
Description	Admin will add the category record in to the database.
Purpose	It allow admin to add the category in the system so that knowldge store can sell this category .
Actor	Admin
Pre-condition	1. Admin should logged in.
Post-condition	1. New category should be added into the category list.
Priority	Medium
Basic Flow	1. Admin will open the Book screen. 2. Admin will add the book detail.
Exception	No exception
Frequency of Use	Many times a day when the admin needs to add the new category.

Table 3.18: Admin Can Delete category

Use Case ID	UC-18
Use Case Name	Delete category.
Description	Admin will delete category from the list of books we have.
Purpose	Admin will use this when there is need to delete the category.
Primary Actor	Admin
Pre-condition	1. Category should be in the database.
Post-condition	1. Category should be deleted from the list of category we have in our system.
Priority	High.
Basic Flow	1. Admin will select the category to delete. 2. Admin will delete the category.
Exception	No exception
Frequency of Use	Many times a day when the admin wants to delete category.

Table 3.19: Admin Can Manage Order

Use Case ID	UC-19
Use Case Name	Manage Orders
Description	Admin can manage orders i:e can assign delivery boy , assign status etc .
Purpose	It will allow admin to manage the orders.
Actor	Admin
Pre-condition	1. Admin should be logged in already. 2. Admin should be authorized one.
Post-condition	1. Order must be ready to deliver with all requirements .
Priority	High.
Basic Flow	1. This use case activates when admin click order . 2. The system will moved to the order panel .
Exception	No exception
Frequency of Use	Many times whenever admin manage order.

Table 3.20: Admin Can Delete Customer

Use Case ID	UC-20
Use Case Name	Delete Customer.
Description	Admin will delete the customer who perform illegal operations or who make request to delete his account .
Purpose	It will allow admin to delete customer .
Actor	Admin
Pre-condition	1. Admin should be logged in already. 2. Admin should be authorized one.
Post-condition	1. Customer should be removed from database .
Priority	High.
Basic Flow	1. This use case activates when admin press delete icon . 2. The system will remove the customer data .
Exception	No exception
Frequency of Use	Many times whenever admin delete customer.

Table 3.21: Admin Logout

Use Case ID	UC-21
Use Case Name	Logout
Description	Admin can logout when he wants.
Purpose	It will allow admin to exit from his account.
Actor	Admin
Pre-condition	1. Admin should be logged in already. 2. Admin should be authorized one.
Post-condition	1. Admin must be out of his account .
Priority	Low.
Basic Flow	1. This use case activates when admin press logout icon . 2. The system will moved to the logout panel .
Exception	No exception
Frequency of Use	Many times whenever admin wants to logout.

3.6 Sequence Diagrams

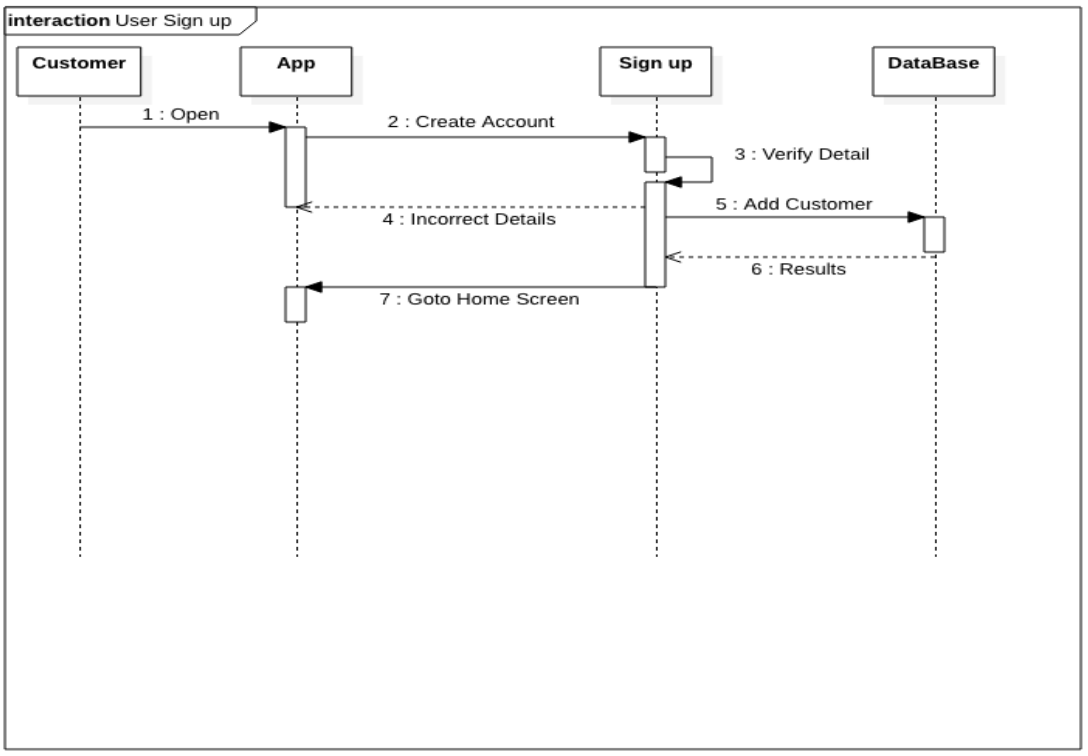

FIGURE 3.2: Customer Sign Up

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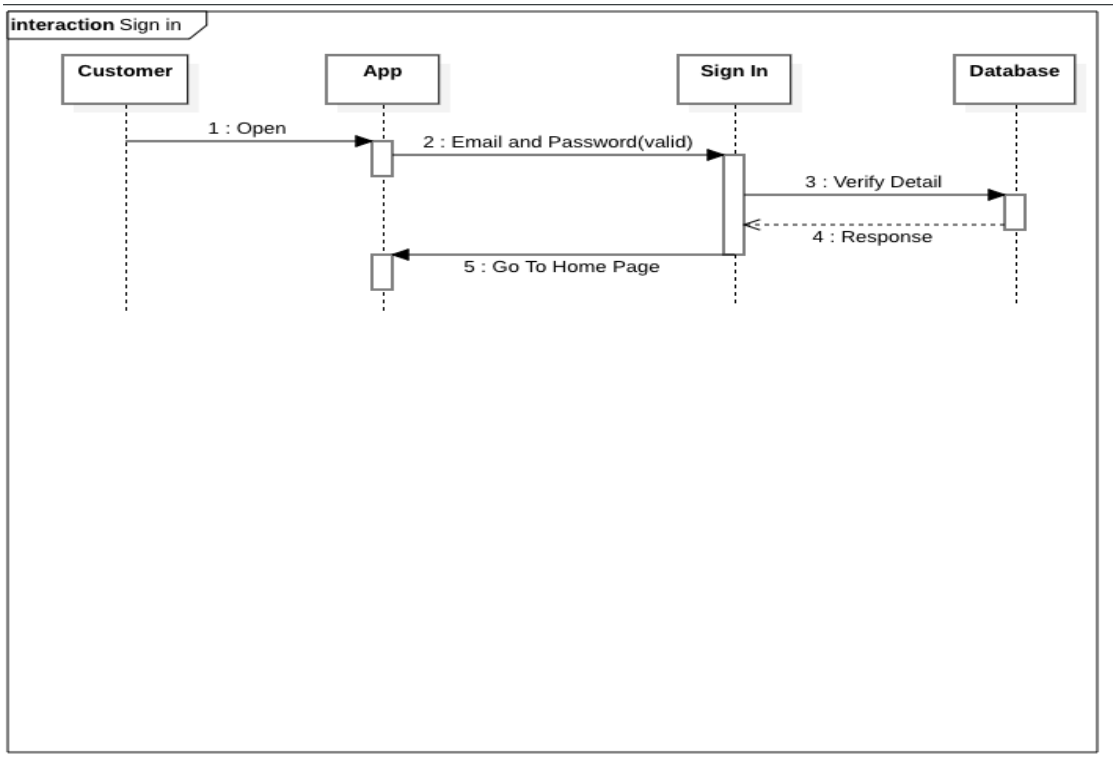

FIGURE 3.3: Customer Sign In

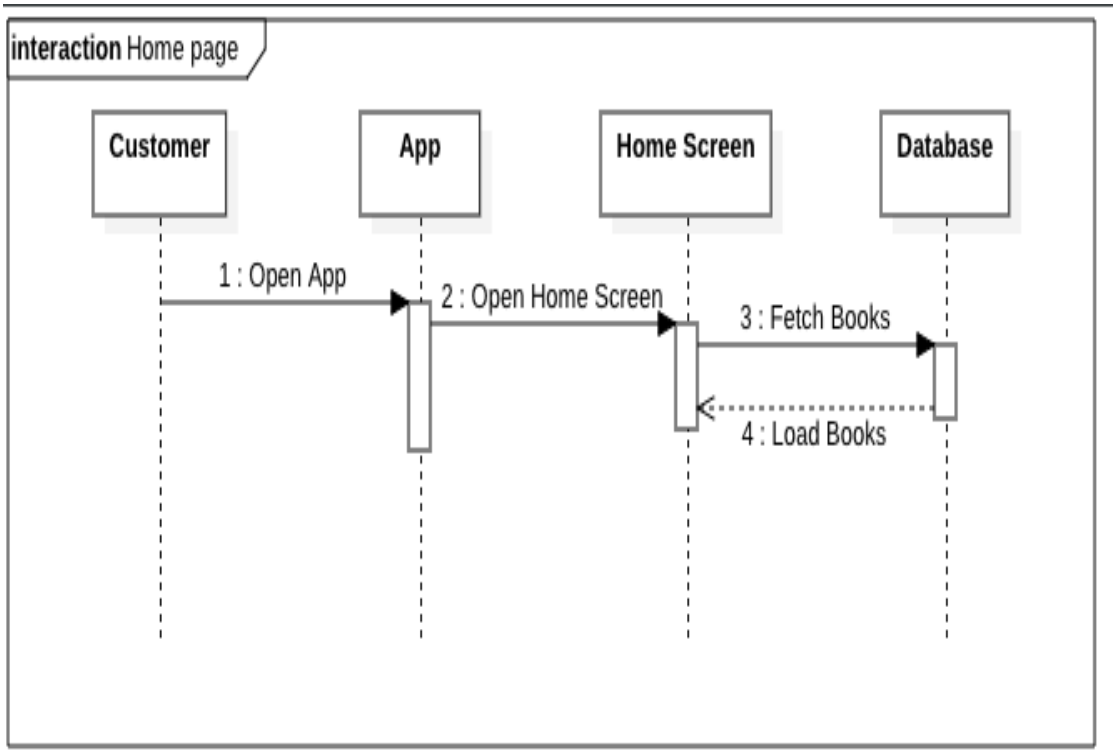

FIGURE 3.4: Visit Home Page

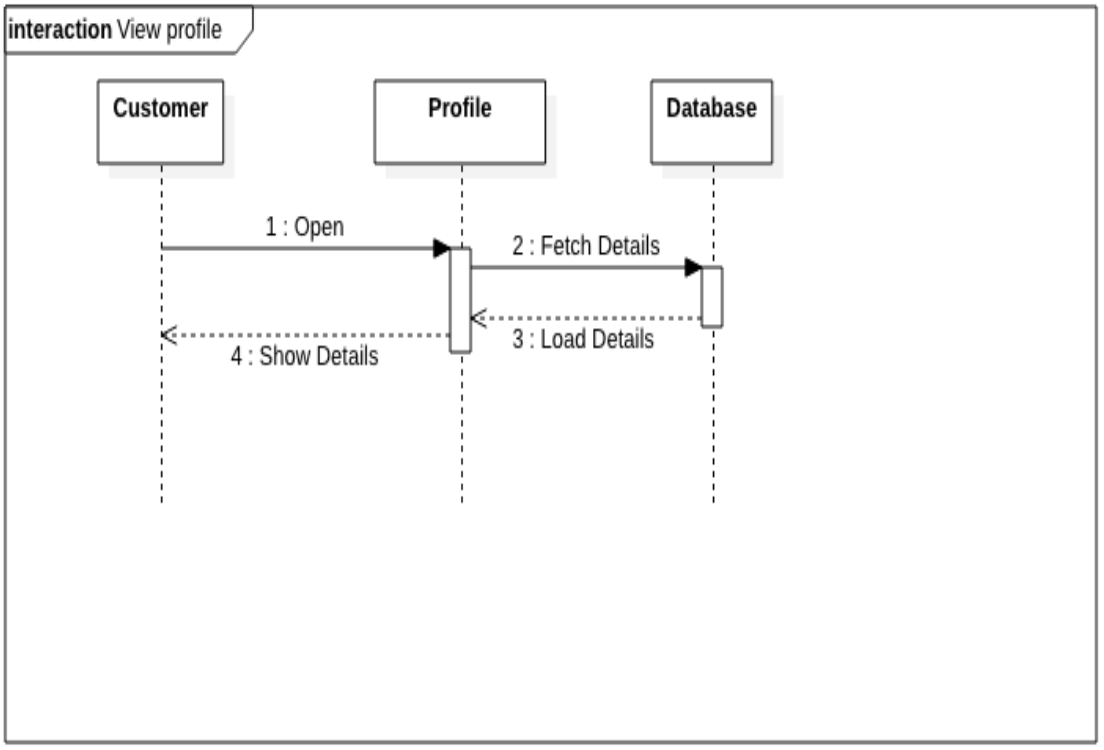

FIGURE 3.5: View Profile

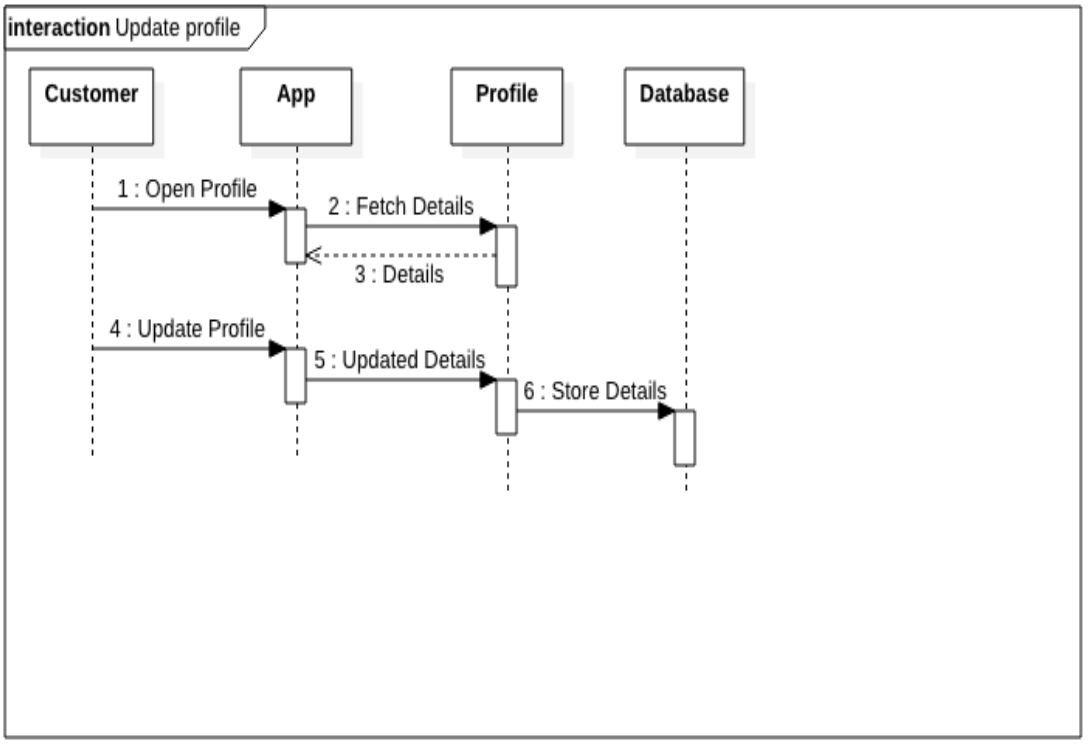

FIGURE 3.6: Update Profile

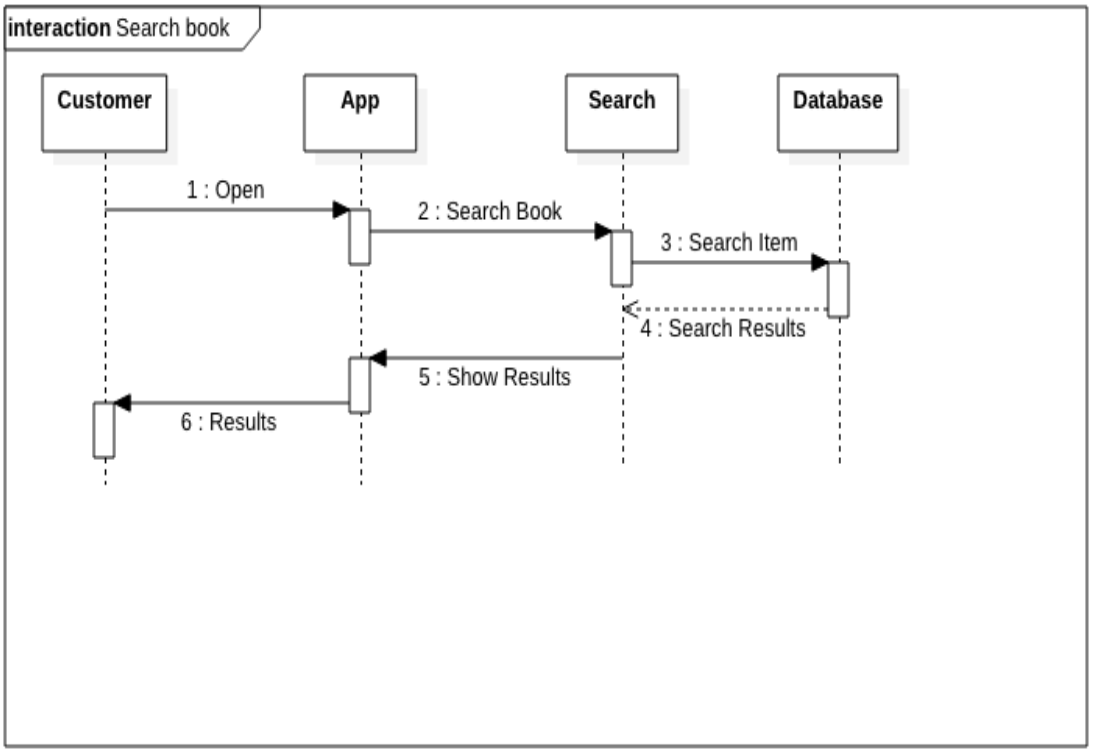

FIGURE 3.7: Search Book

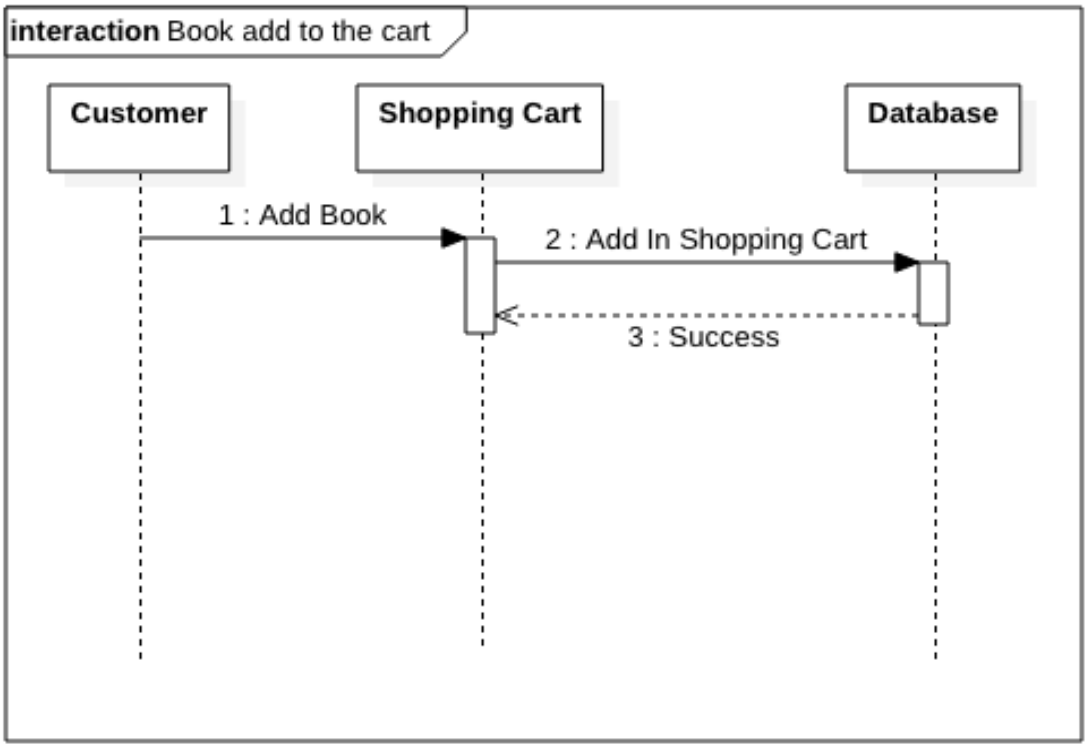

FIGURE 3.8: Book Aad To The Cart

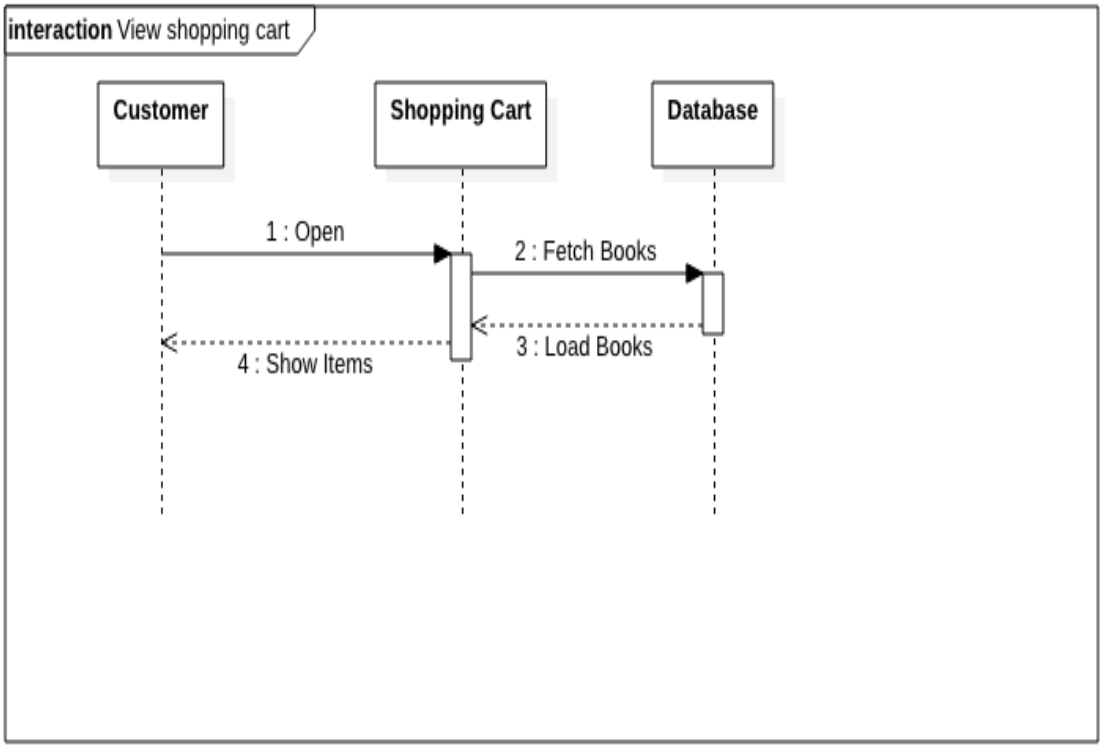

FIGURE 3.9: View Shopping Cart

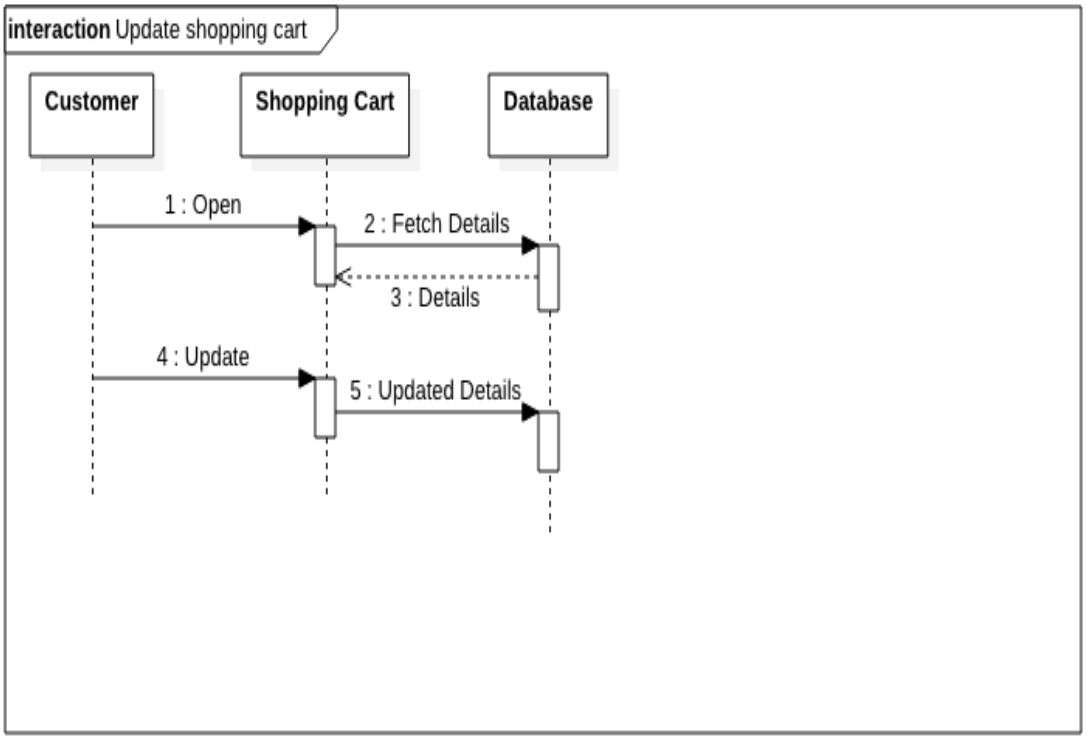

FIGURE 3.10: Update Shopping Cart

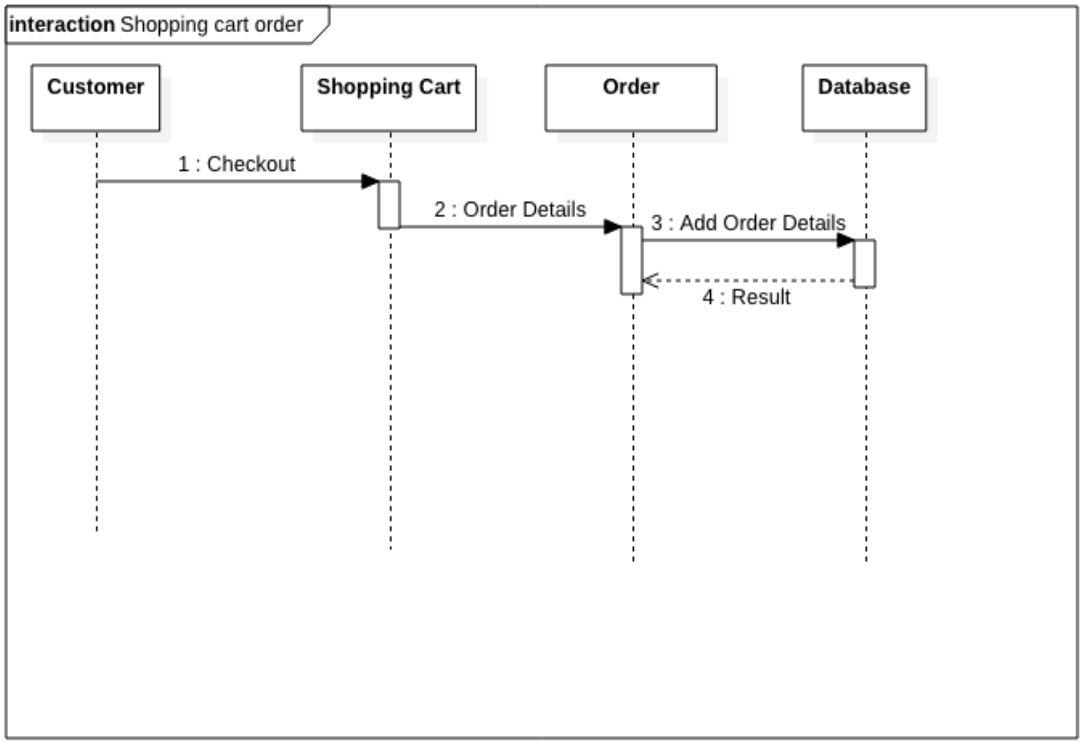

FIGURE 3.11: Shopping Cart Order

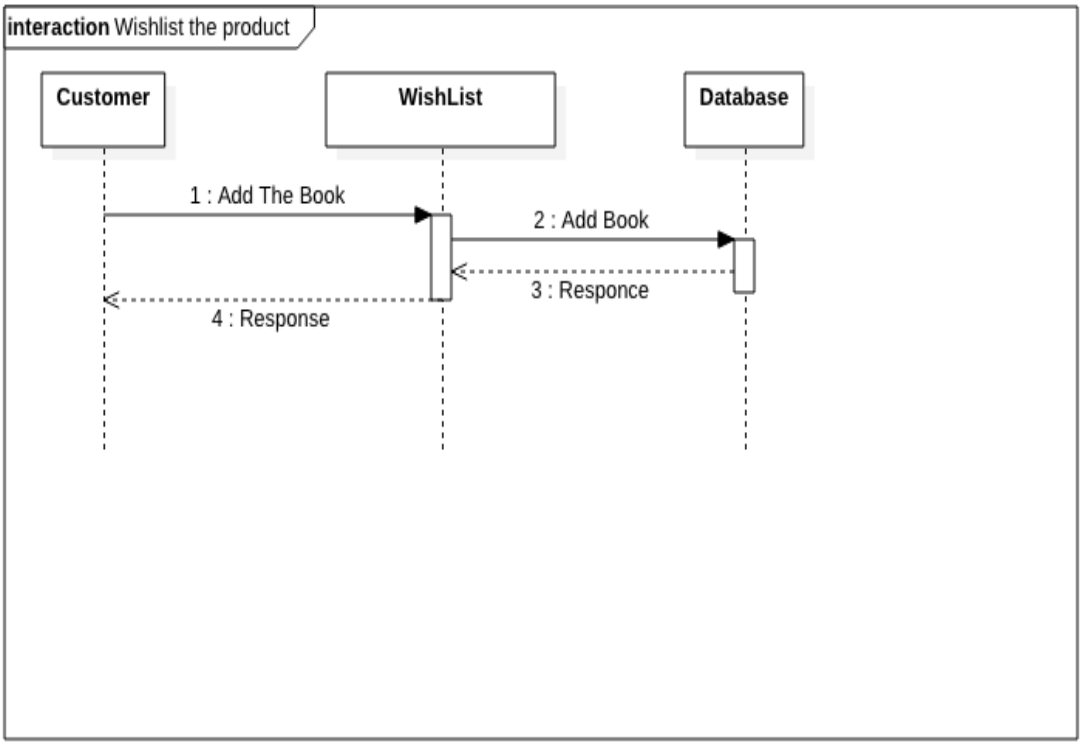

FIGURE 3.12: Wishlist The Book

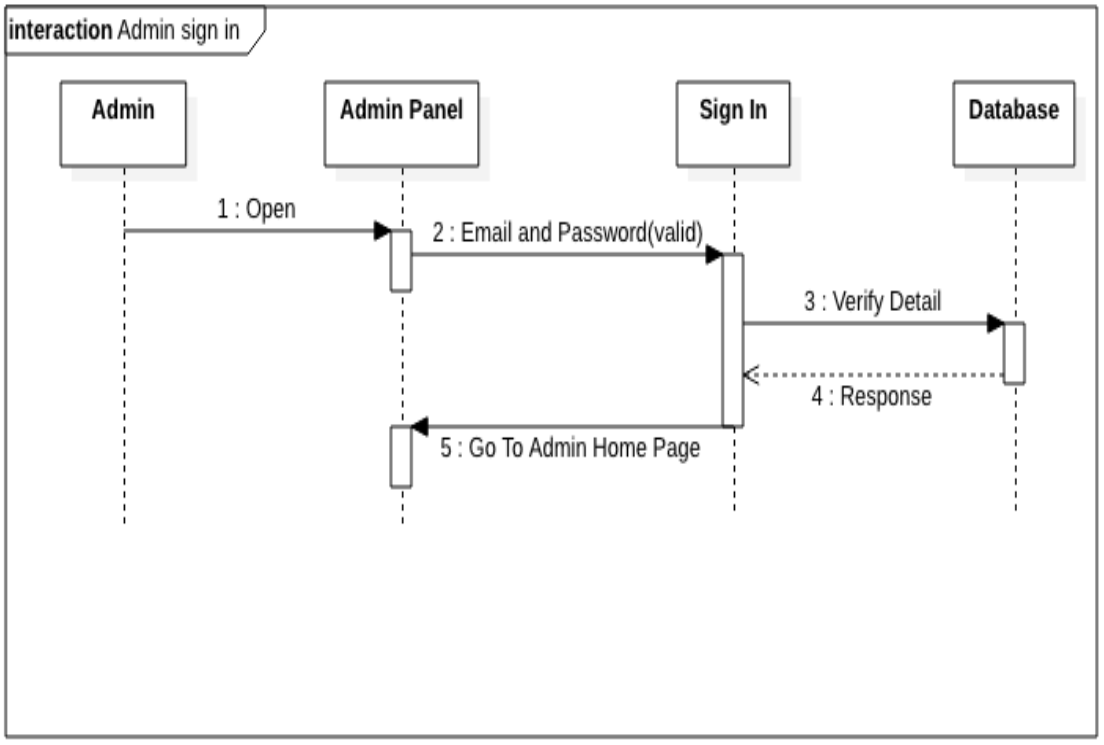

FIGURE 3.13: Admin Sign In

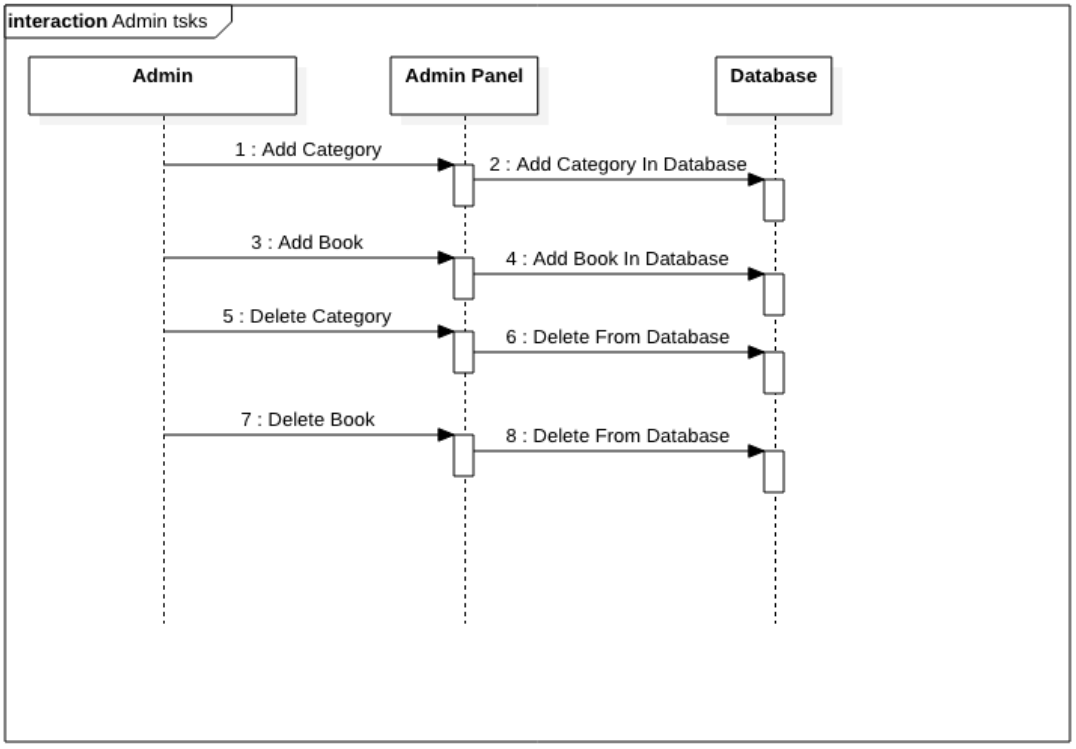

FIGURE 3.14: Admin Tasks

3.7 Collaboration Diagrams

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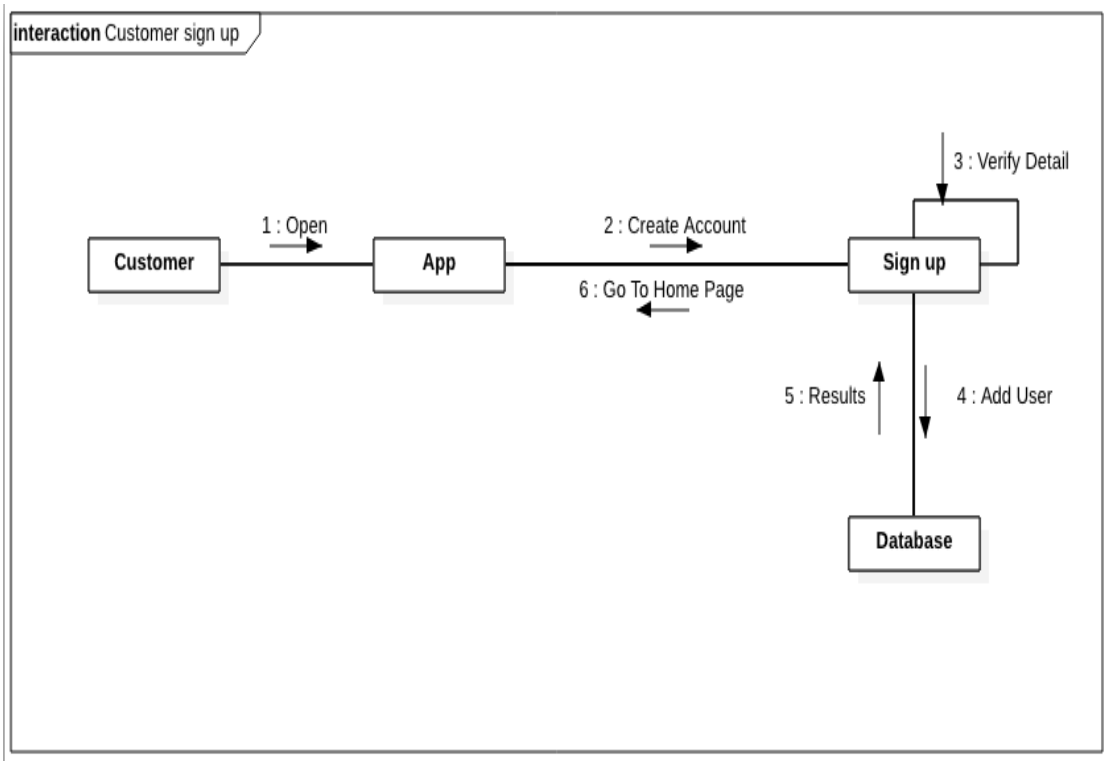

FIGURE 3.15: Customer Sign Up

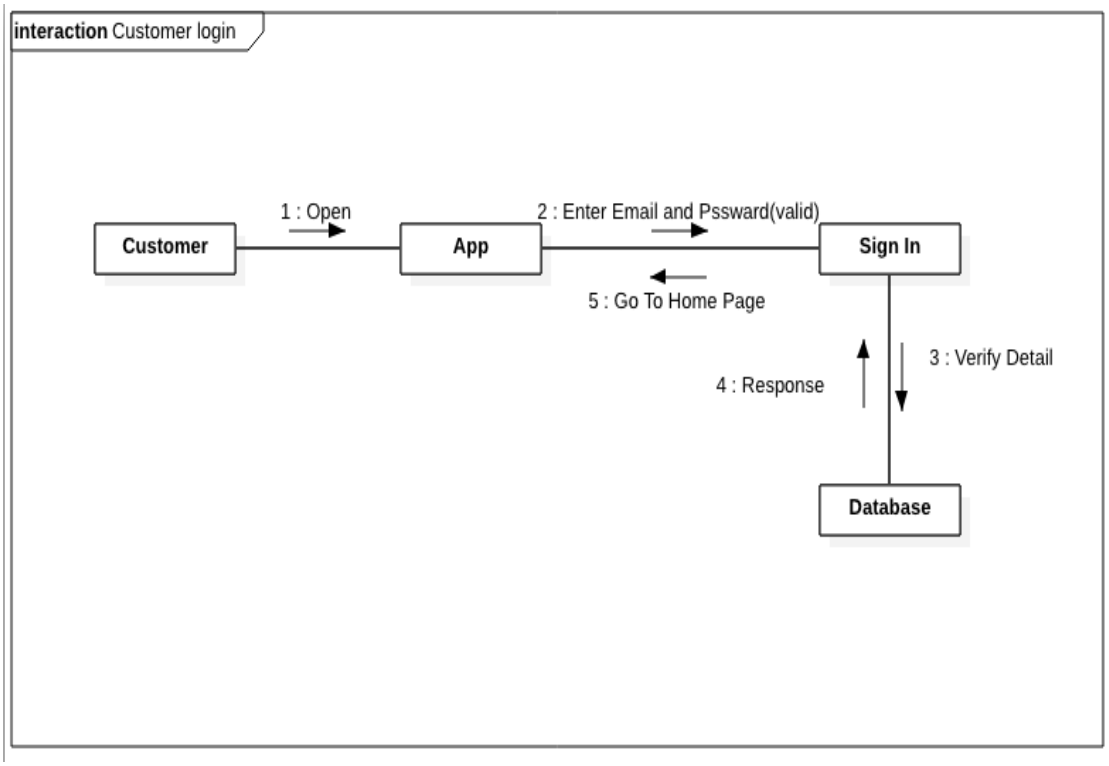

FIGURE 3.16: Customer Sign In

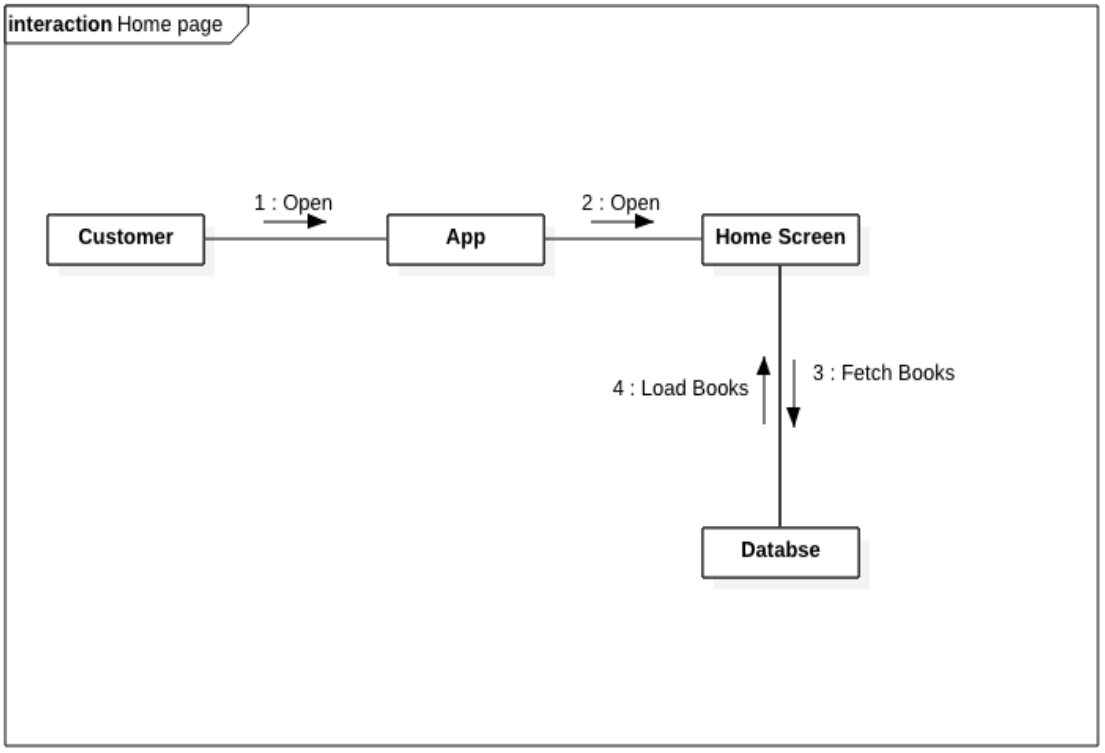

FIGURE 3.17: Visit Home Page

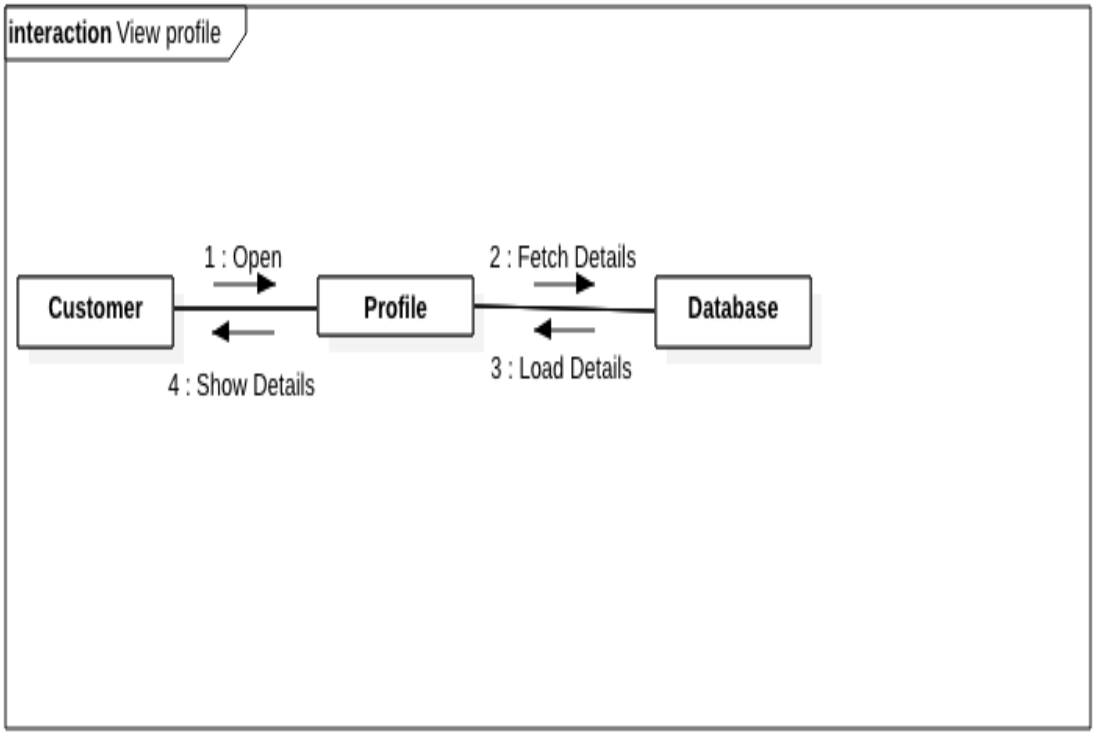

FIGURE 3.18: View Profile

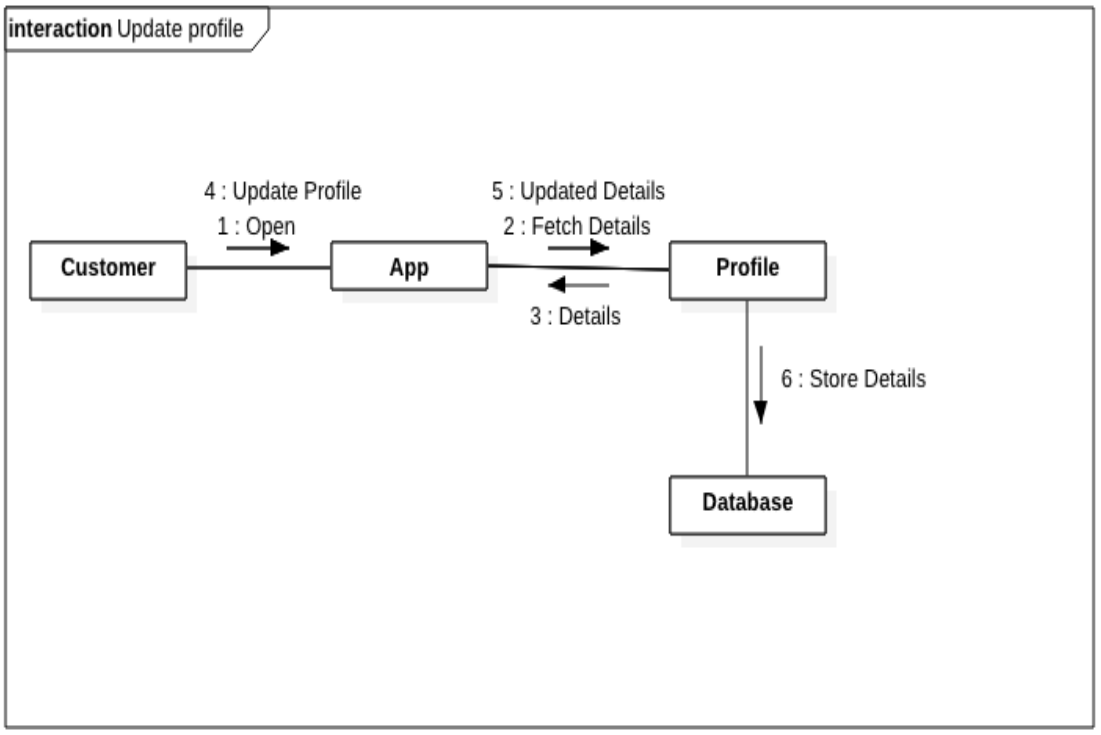

FIGURE 3.19: Update Profile

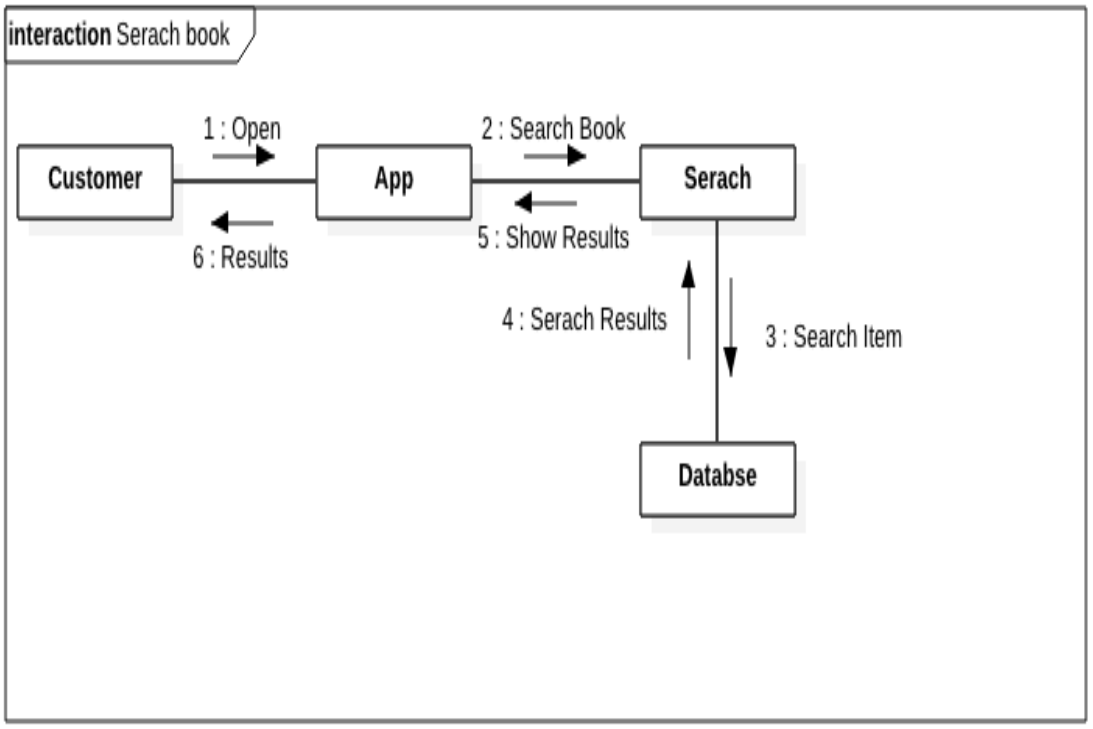

FIGURE 3.20: Search Book

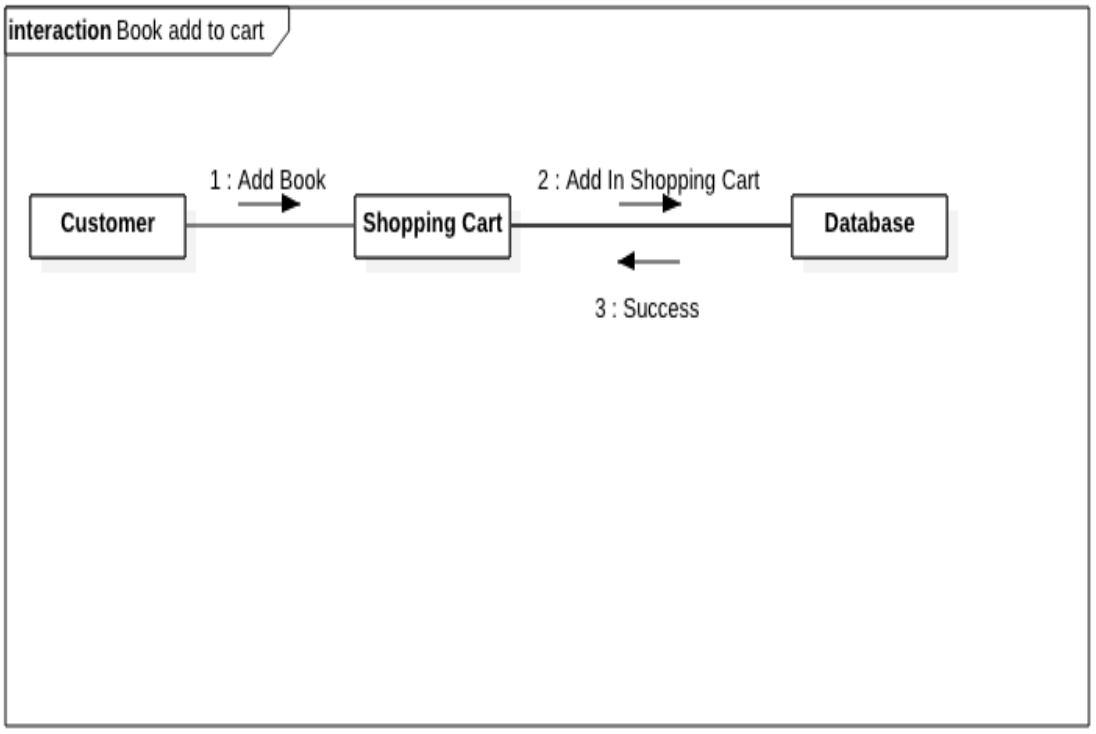

FIGURE 3.21: Add Book To The Cart

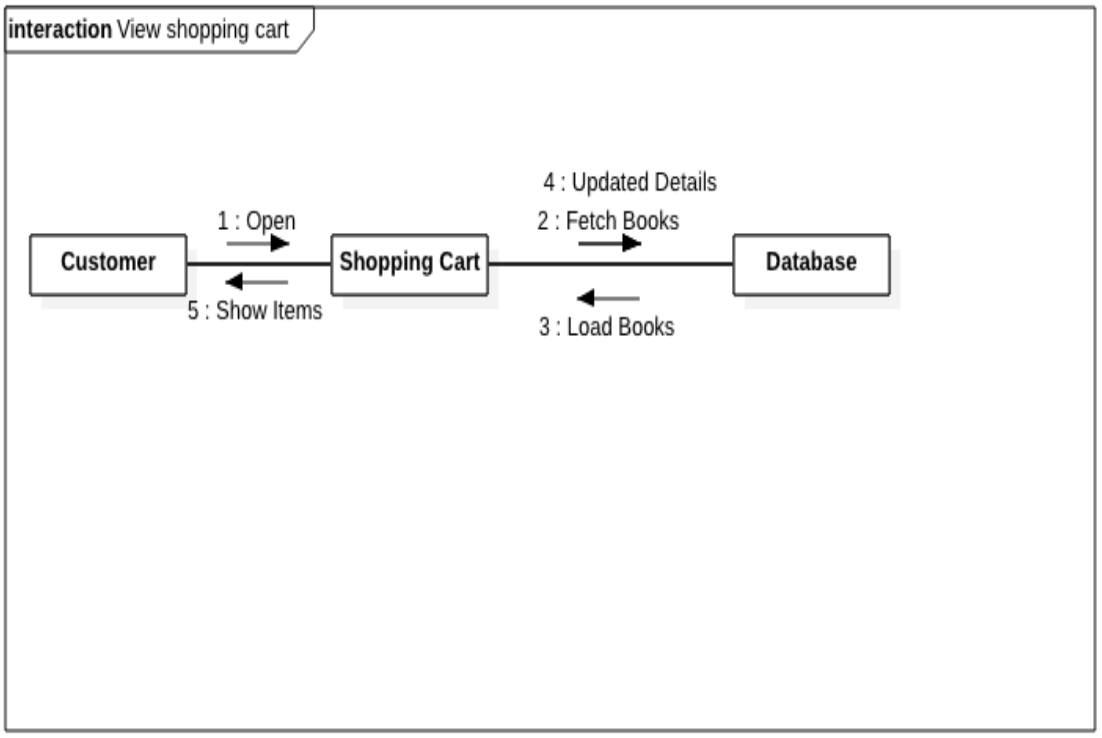

FIGURE 3.22: View Shopping Cart

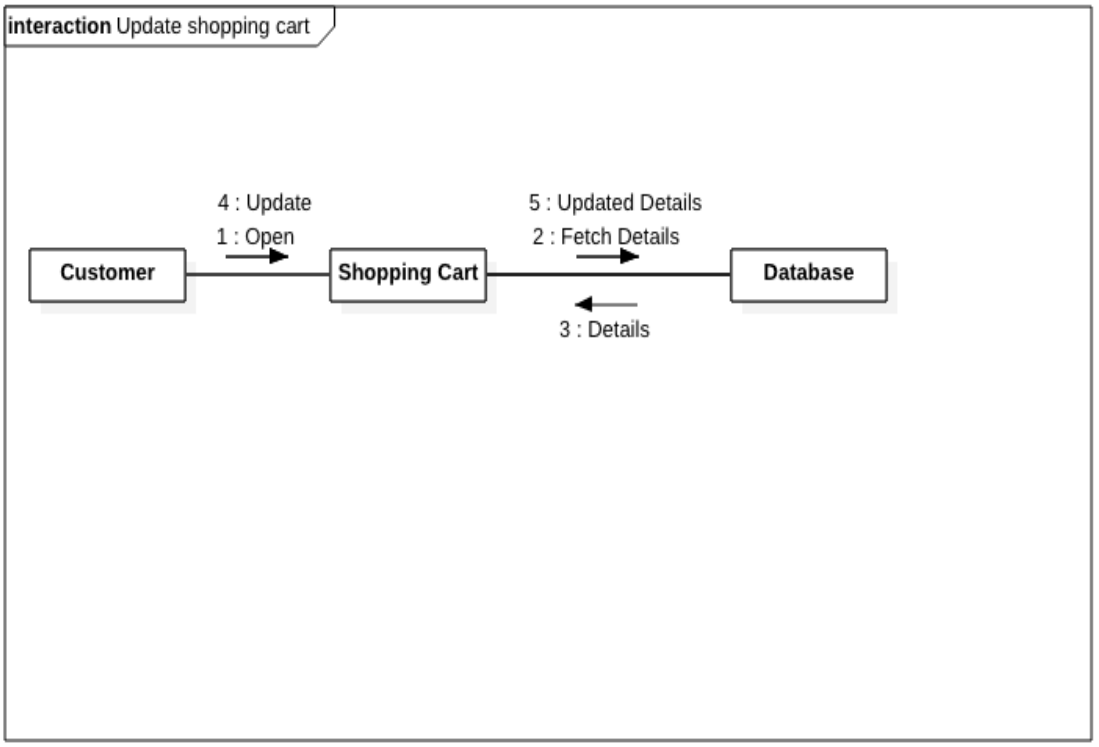

FIGURE 3.23: Update Shopping Cart

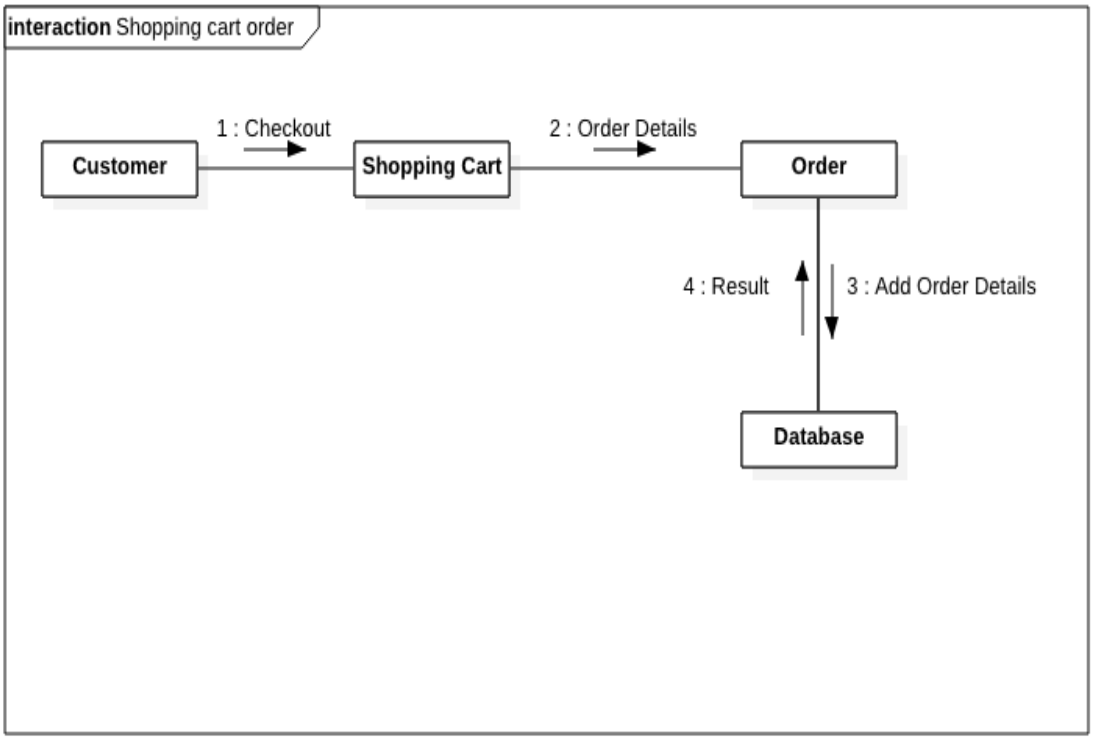

FIGURE 3.24: Order

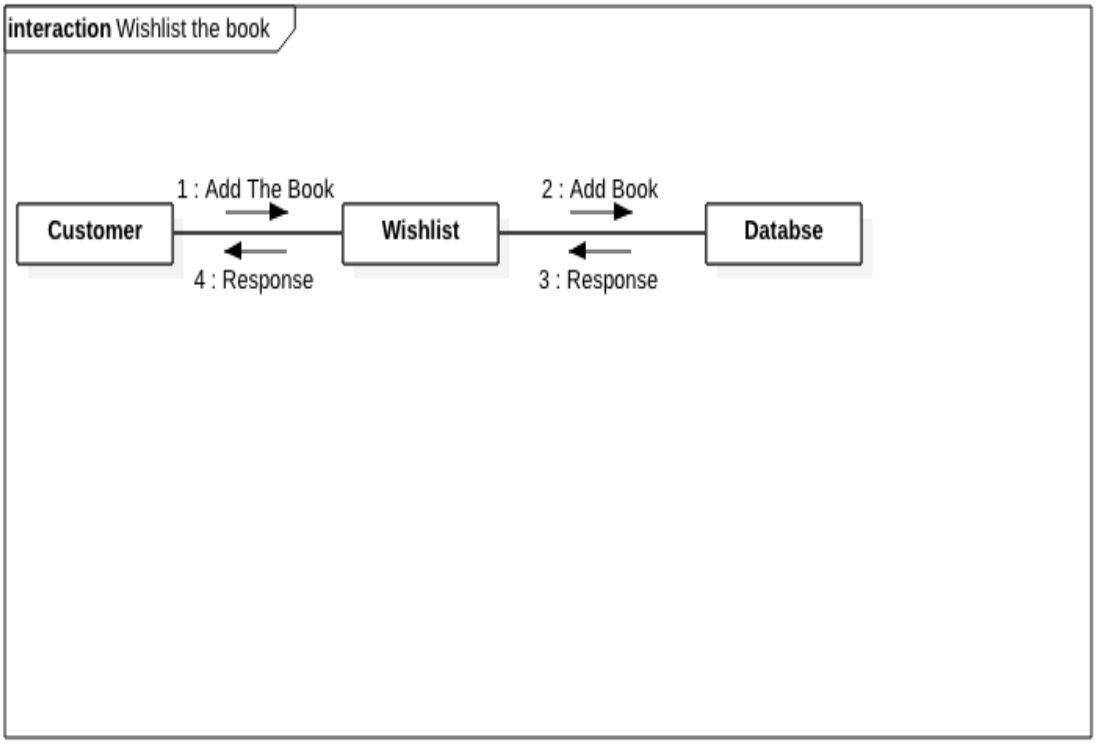

FIGURE 3.25: Wishlist

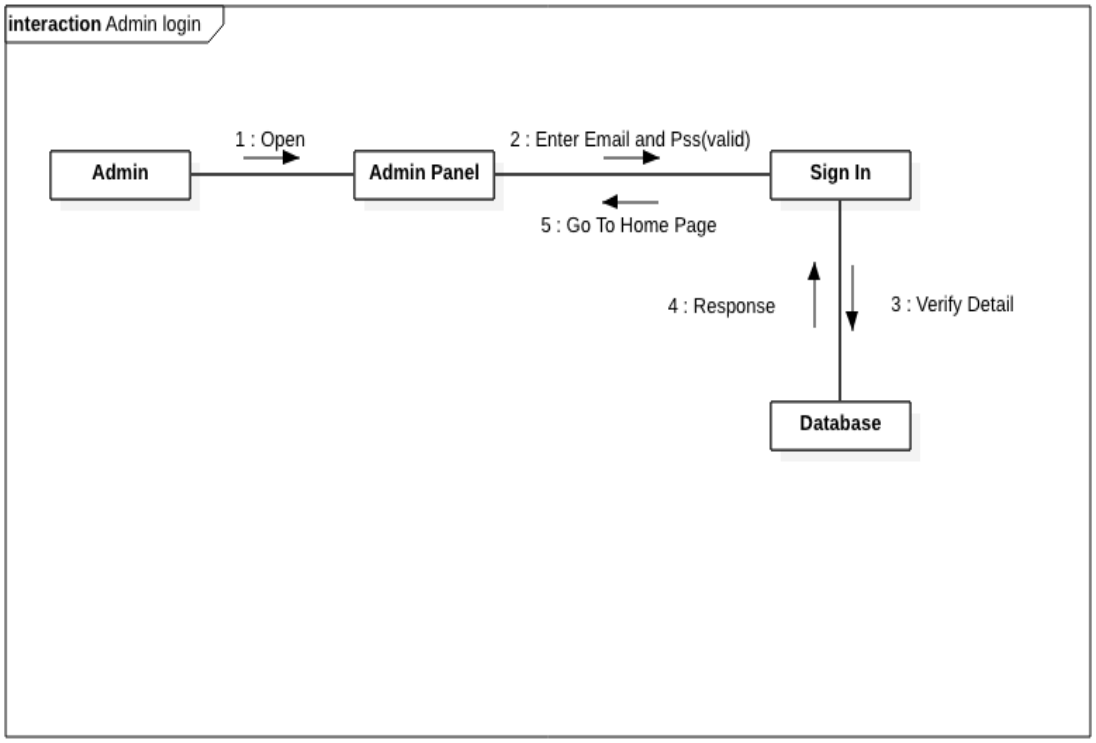

FIGURE 3.26: Admin Sign In

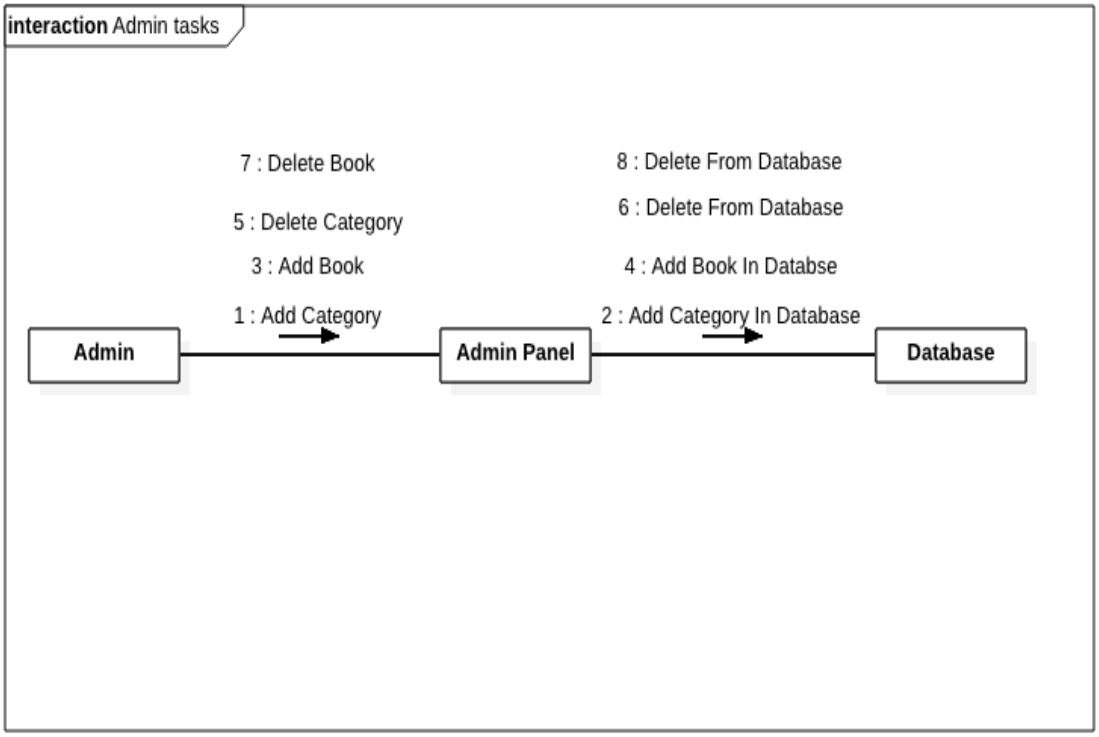

FIGURE 3.27: Admin Tasks

3.8 Activity Diagrams

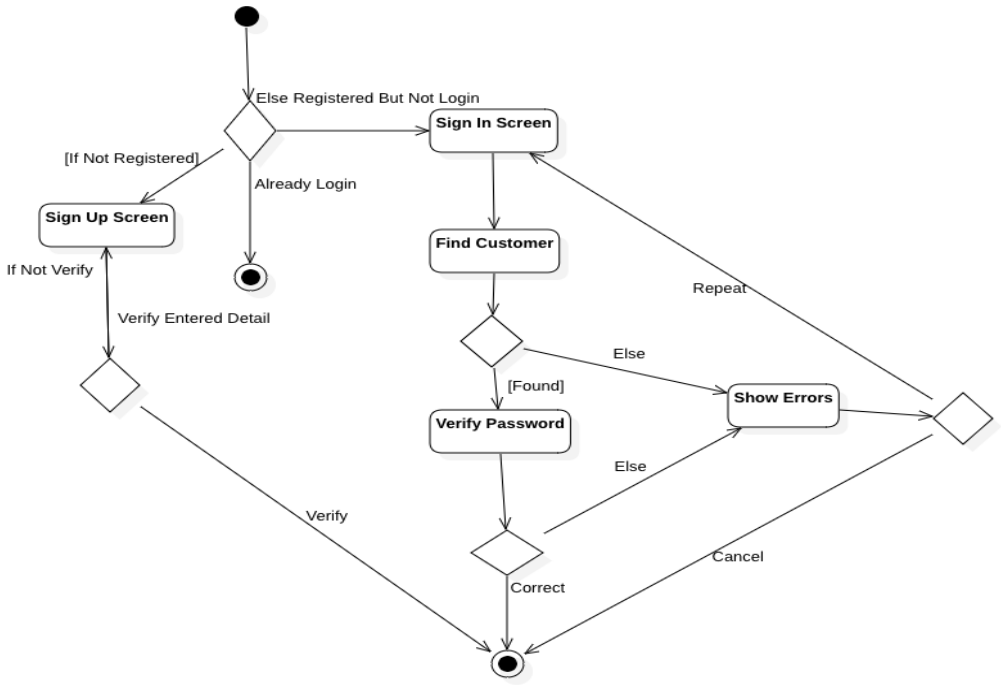

FIGURE 3.28: Customer Signup And Login

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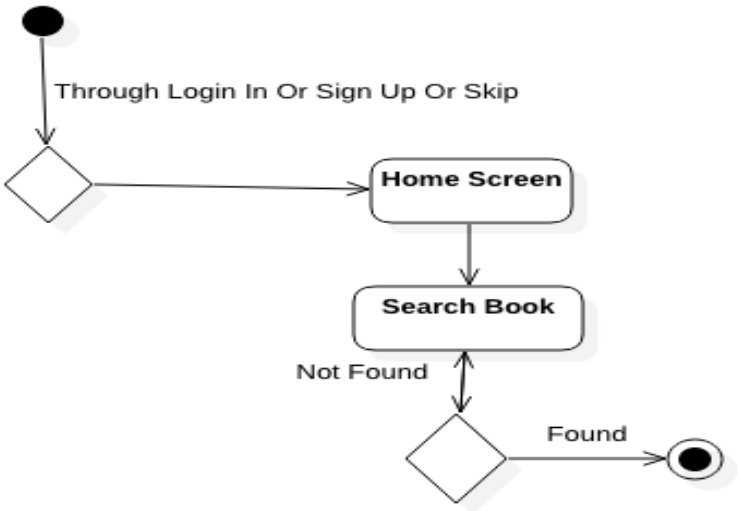

FIGURE 3.29: Search Book

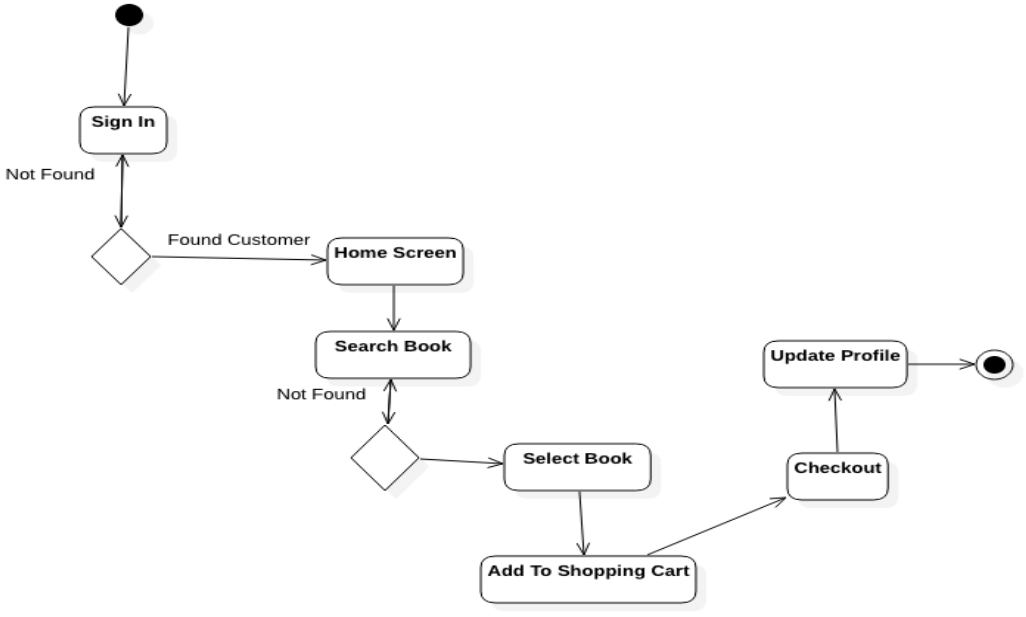

FIGURE 3.30: Add Book To Cart

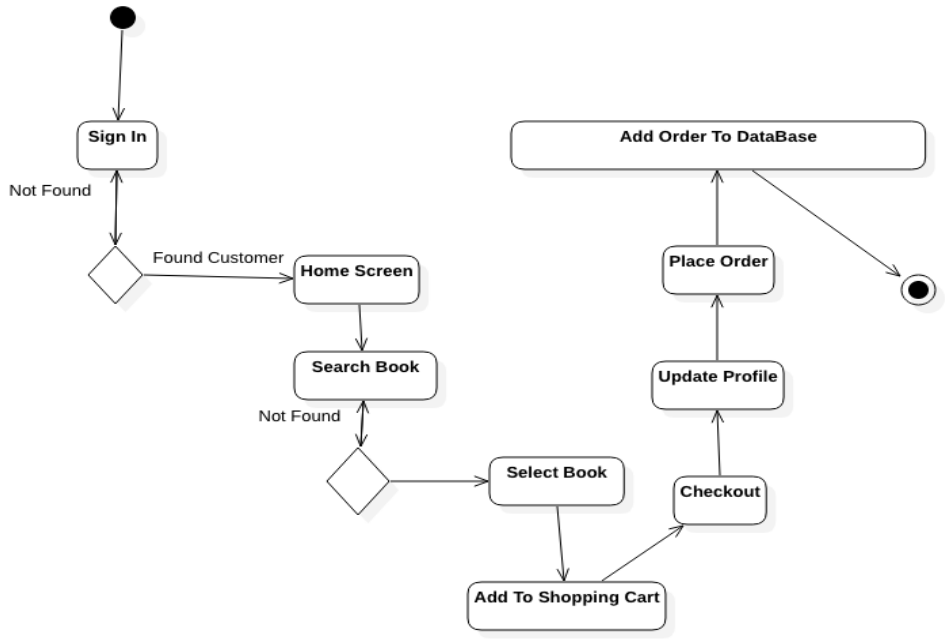

FIGURE 3.31: Order Of Shopping Cart

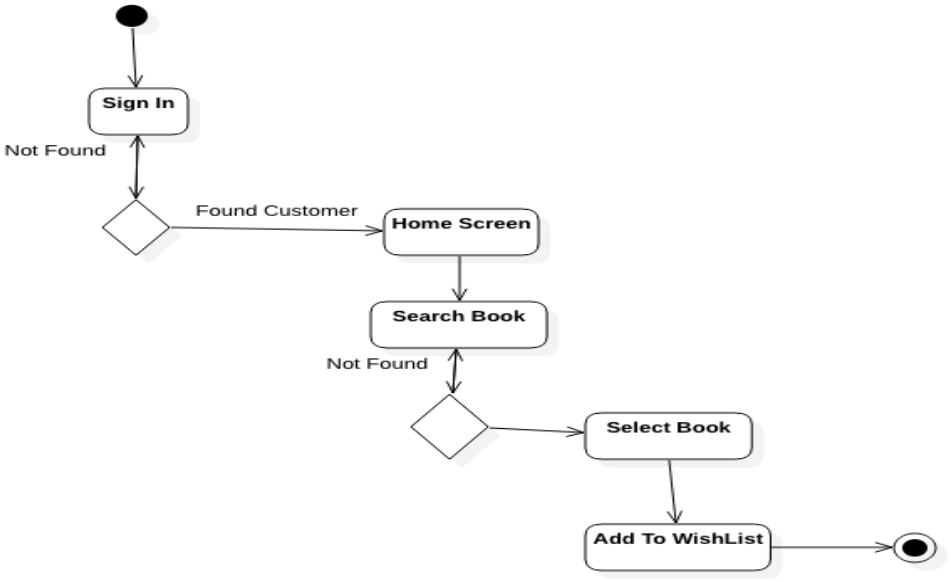

FIGURE 3.32: Book Add To WishList

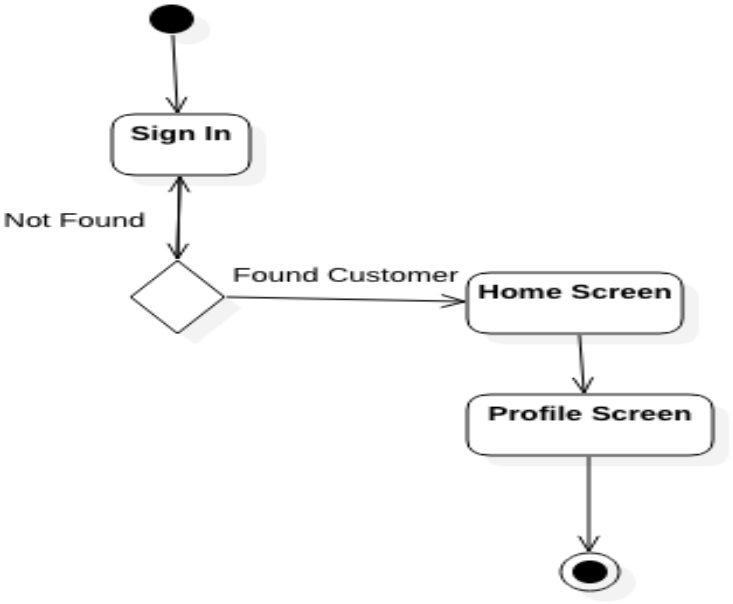

FIGURE 3.33: View profile

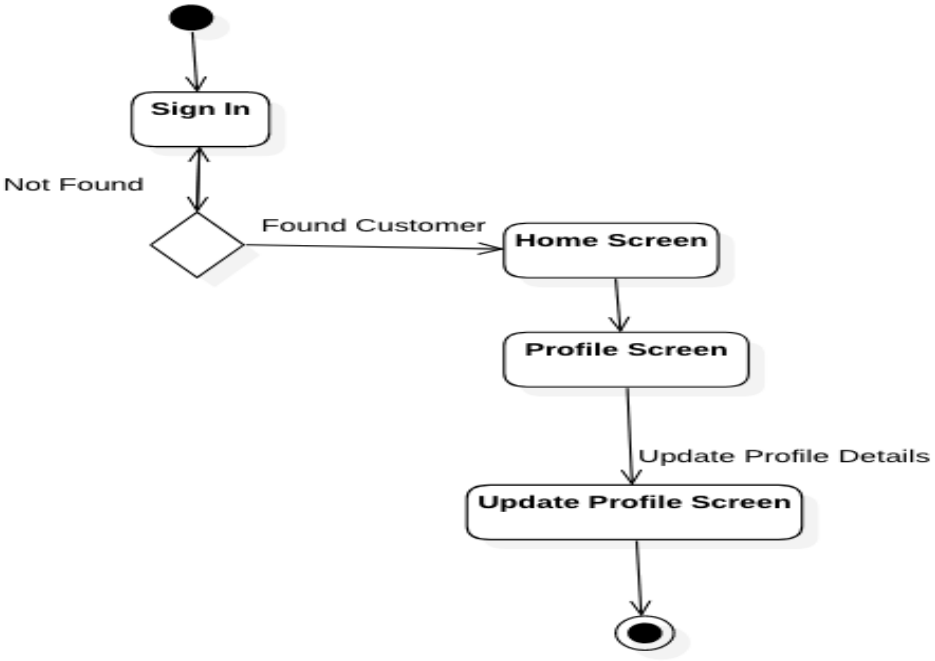

FIGURE 3.34: Update Profile

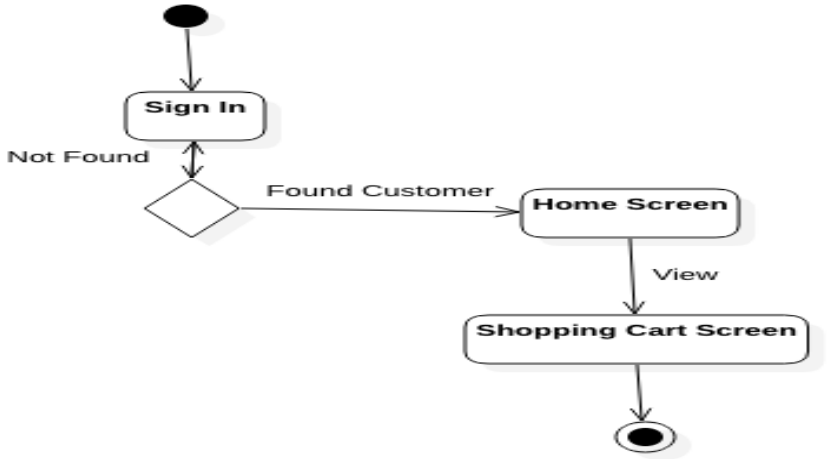

FIGURE 3.35: View Shopping Cart

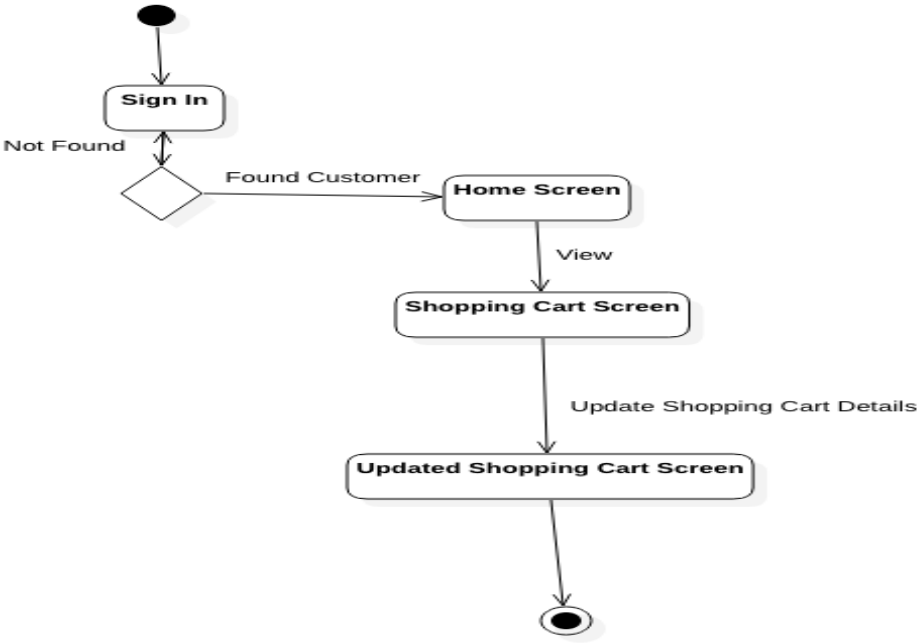

FIGURE 3.36: Update Shopping Cart

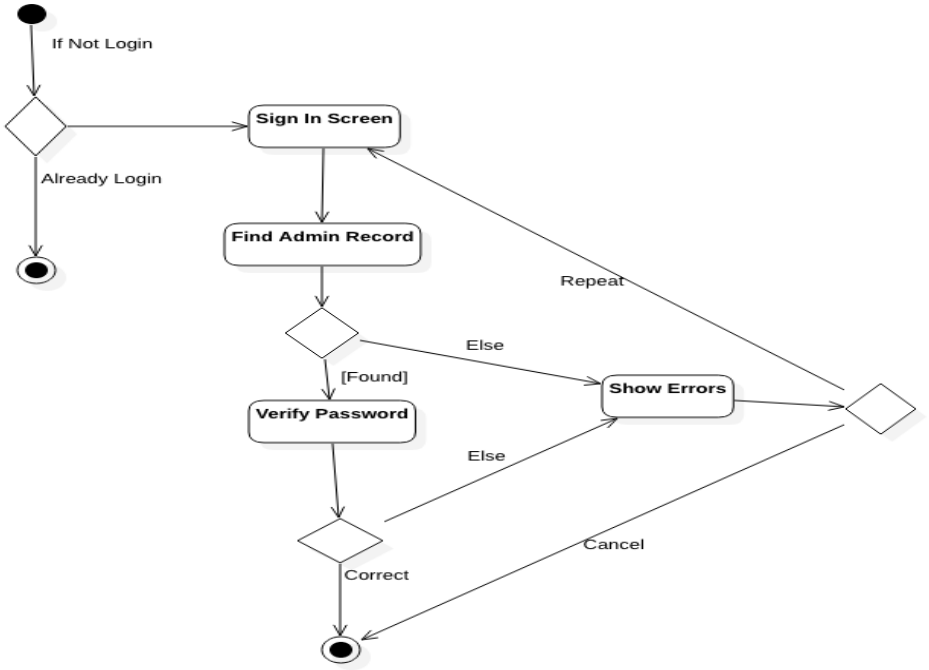

FIGURE 3.37: Admin Login

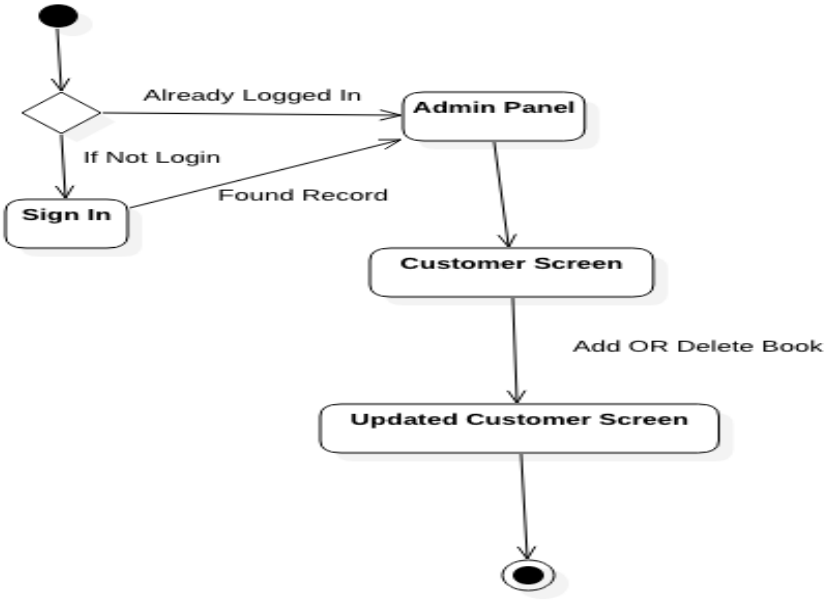

FIGURE 3.38: Delete Customer

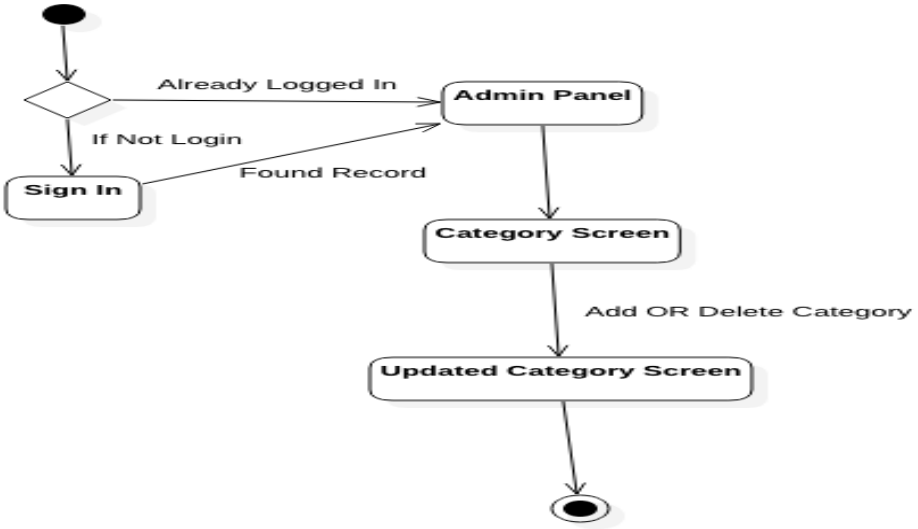

FIGURE 3.39: Add Or Delete Category

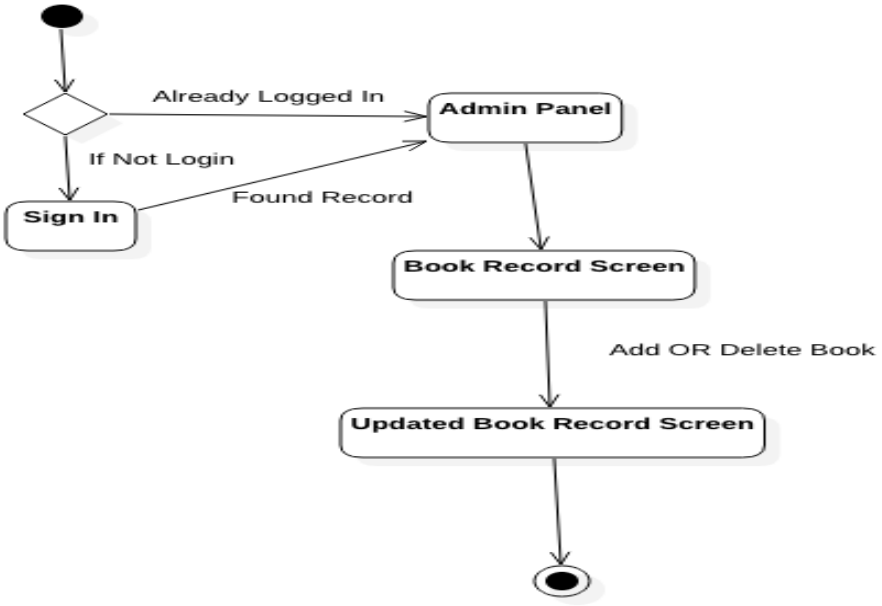

FIGURE 3.40: Add Or Delete Book

3.9 Data Representation Diagram

3.9.1 ER Diagram

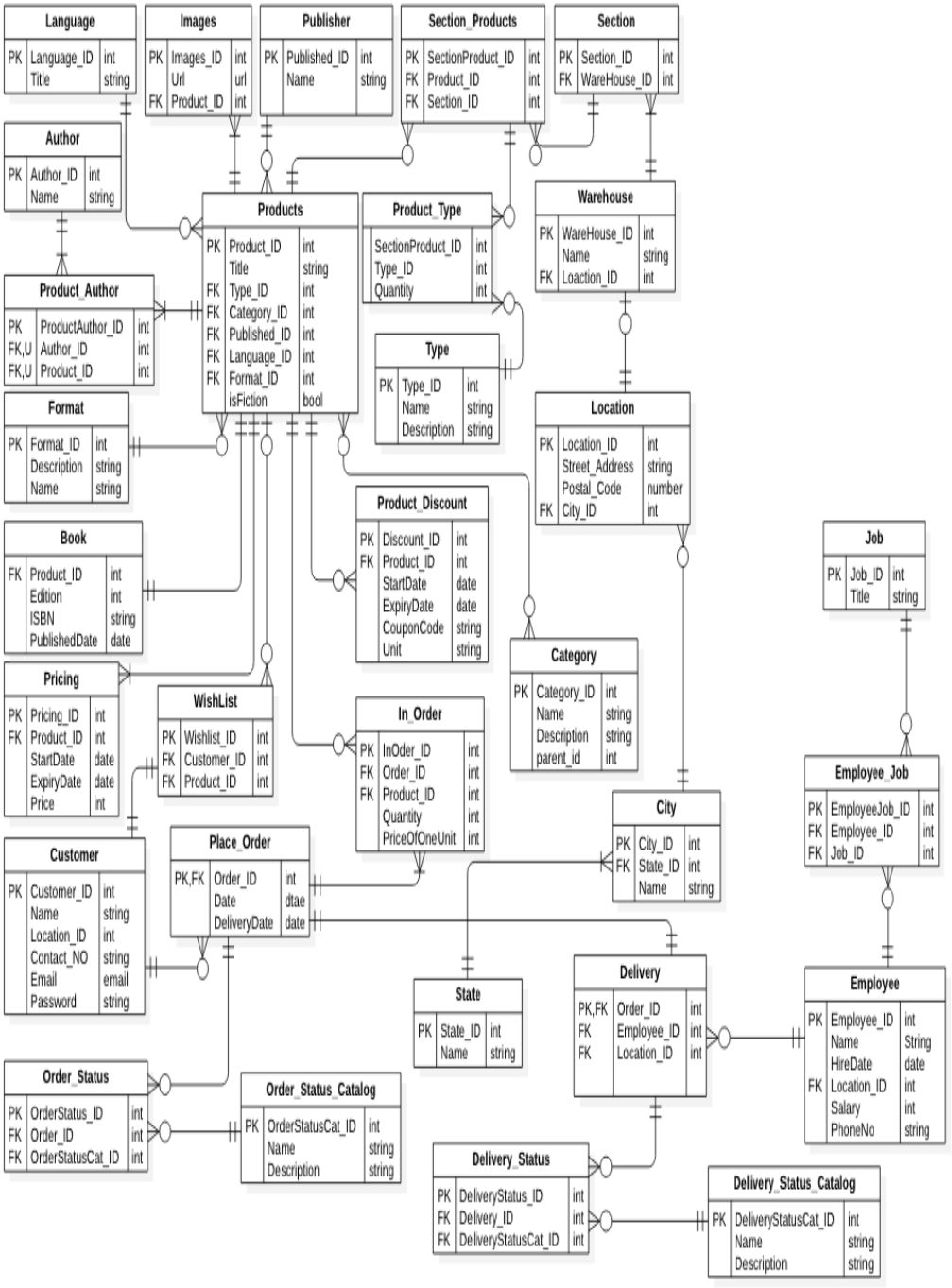

Figure 3.41: ERD

3.9.1.1 Description

Knowledge Store has many books in his list. Each Book has author, publisher, edition, ISBN no, published date, category, format, language,title. One book will have one format, language and publisher. One book can have many authors. One book can have many images associated with it. Each product will be in sections. Each section is related to warehouse. Each warehouse is associated with location. Each location is is city and each city is in state. Customer will be able to add book to shopping cart and can wishlist the book. Customer will be able to place order of shopping cart. Each order has a delivery. Admin assigns a employee to each delivery. Each delivery and order have status.

3.10 Process Flow Diagram

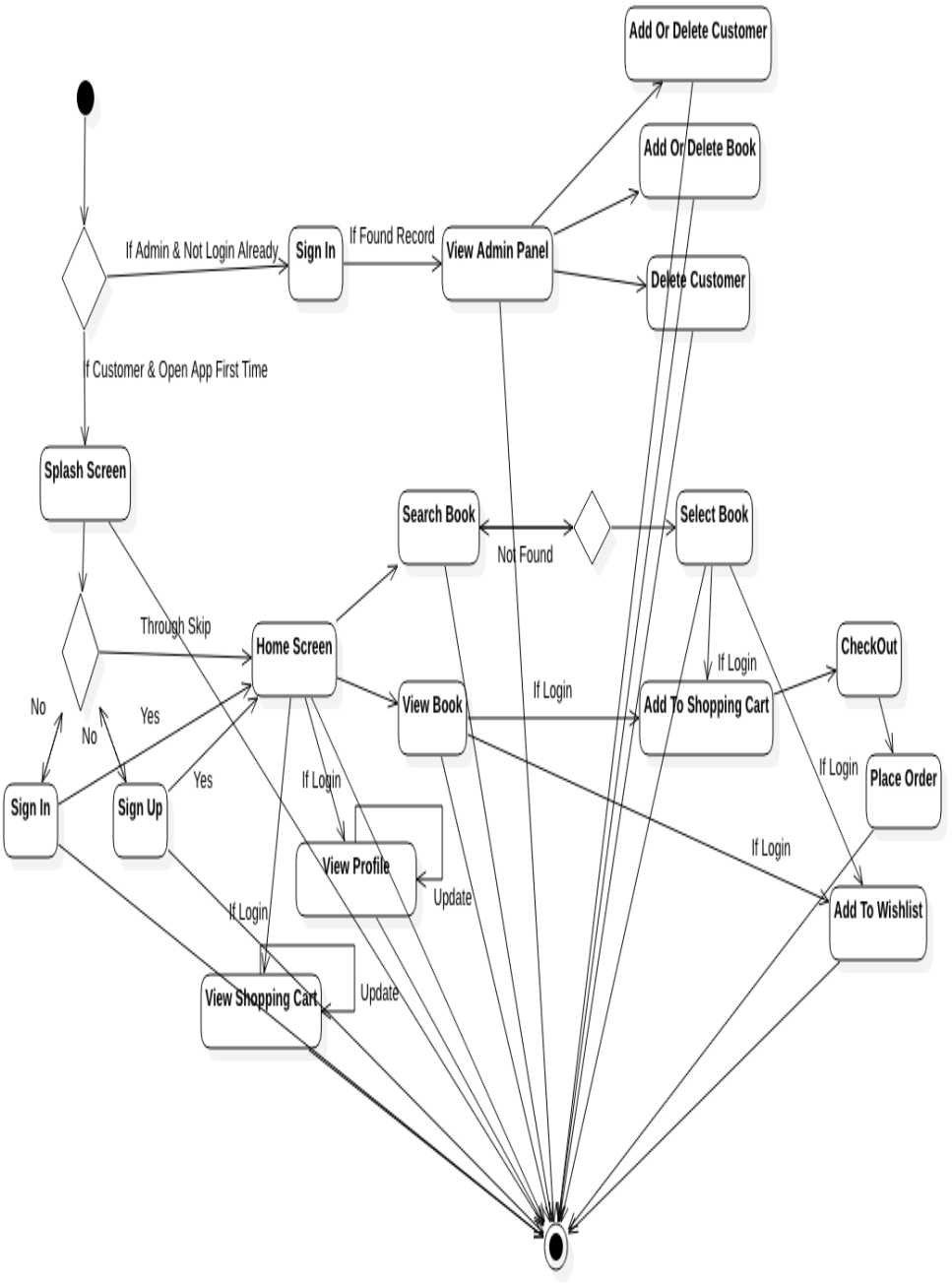

FIGURE 3.42: Process flow Activity Diagram

3.11 Design Models

3.11.1 Data flow Diagrams

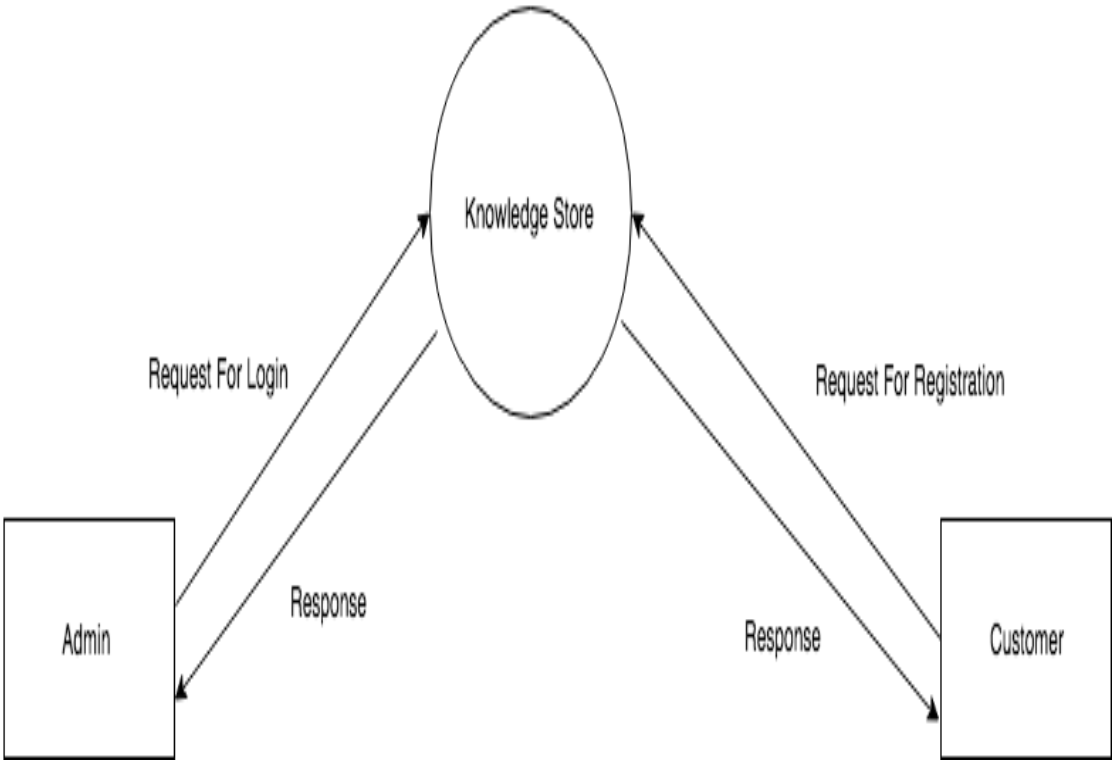

FIGURE 3.43: Level 0

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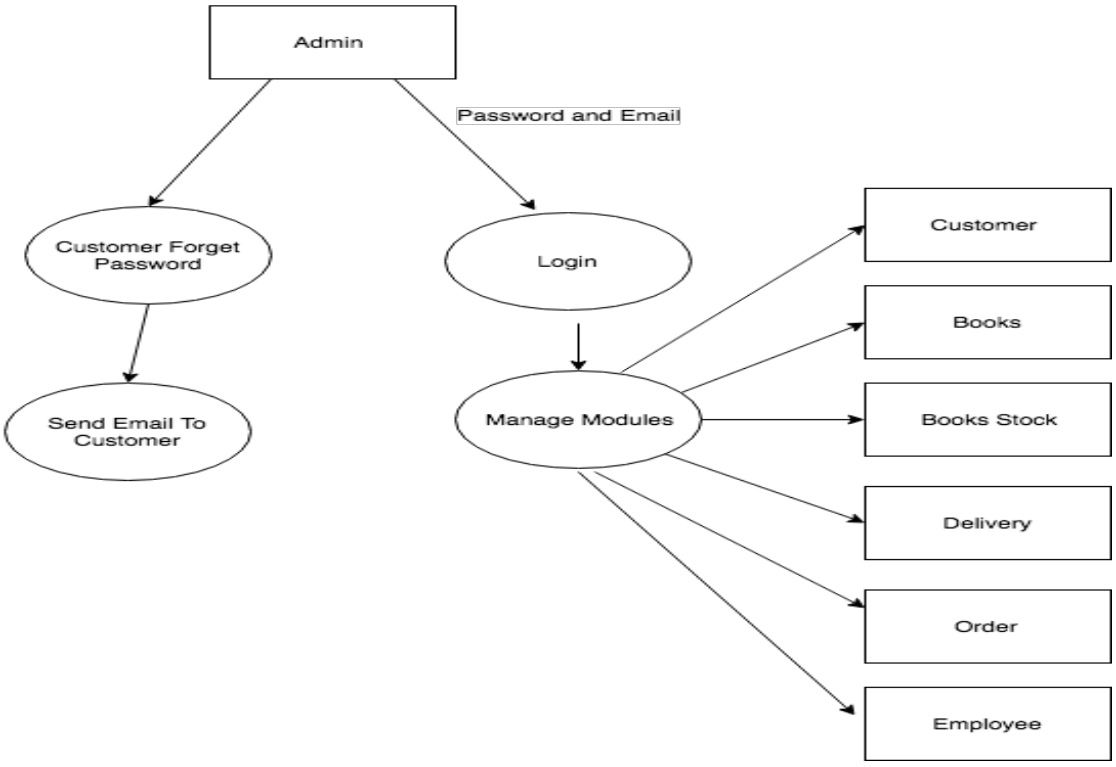

FIGURE 3.44: Admin Level 1

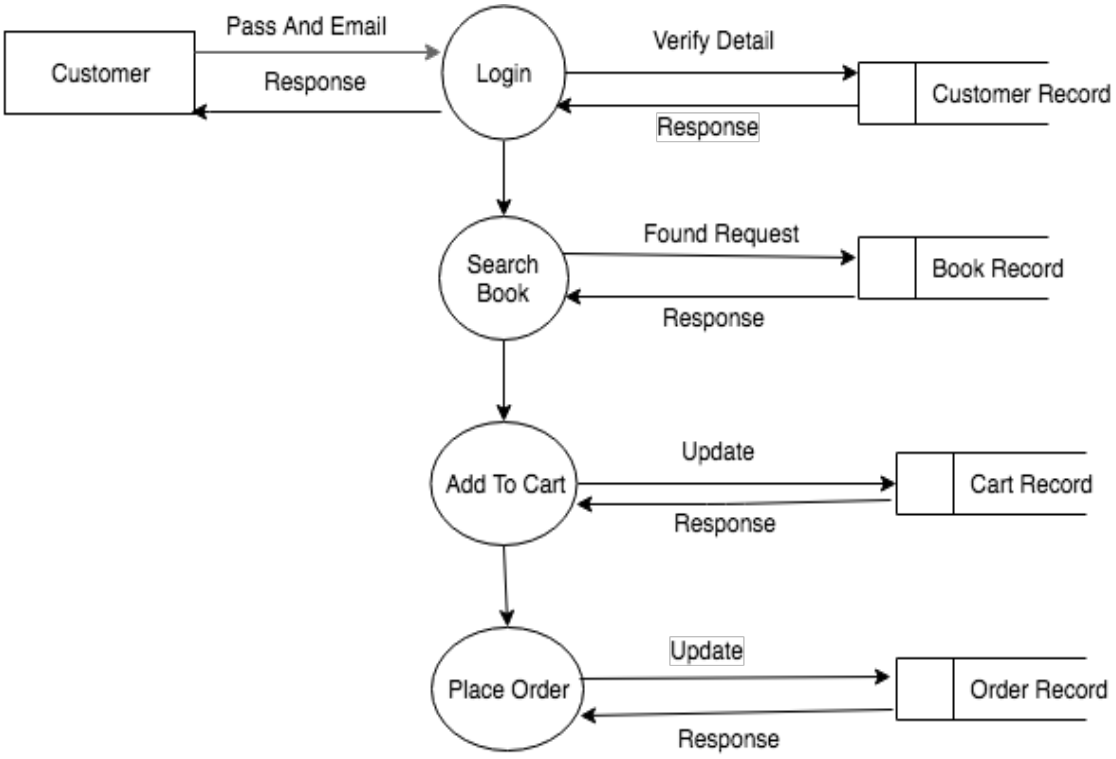

FIGURE 3.45: Customer Level 1

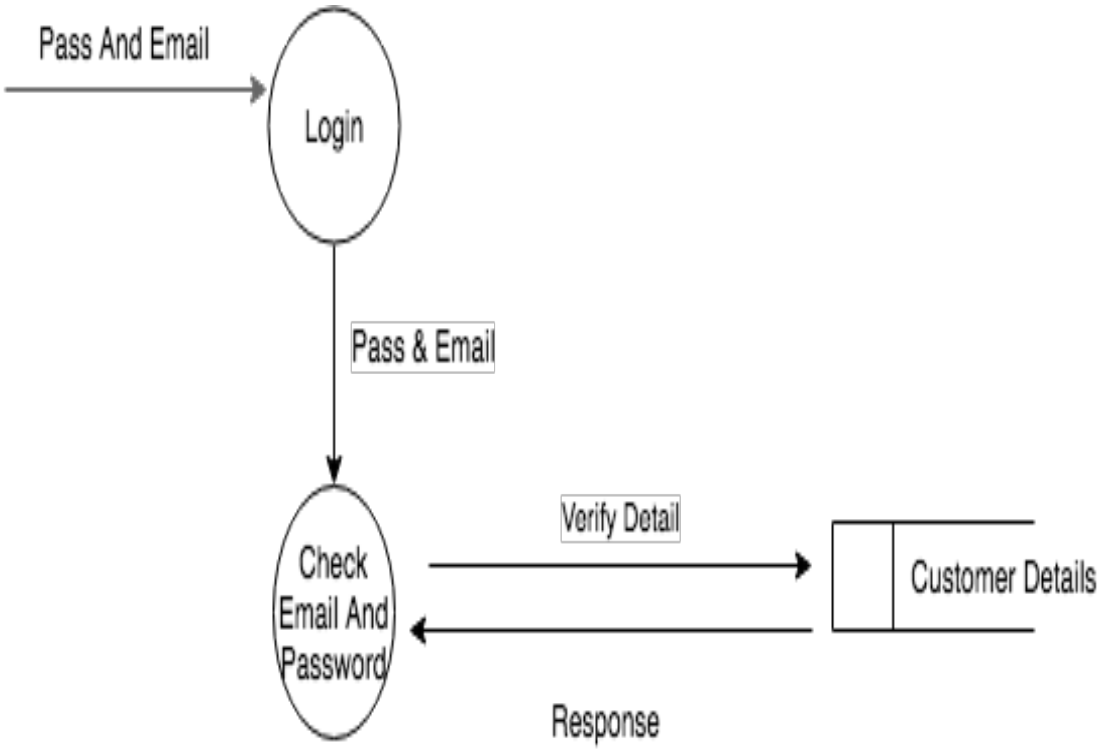

Figure 3.46: Customer Login Level2

Chapter 4

Implementation and Evaluation

4.1 User Interface

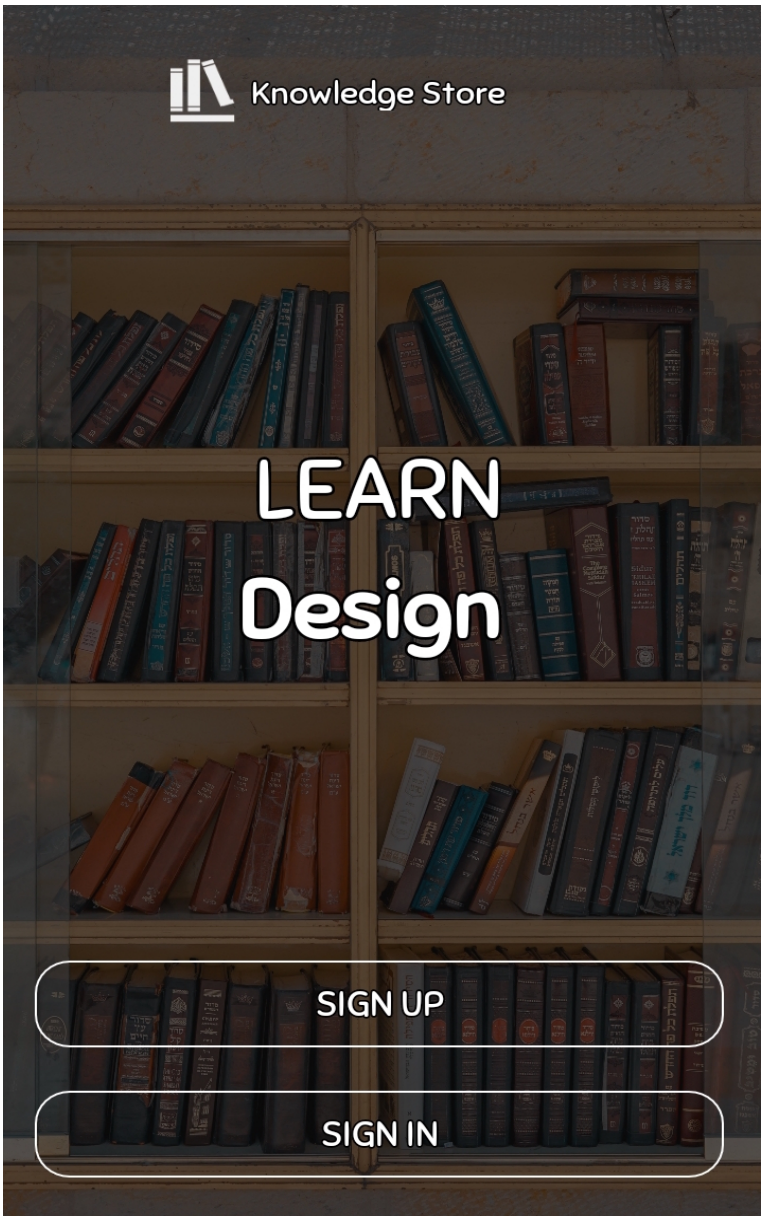

FIGURE 4.1: Splash Screen

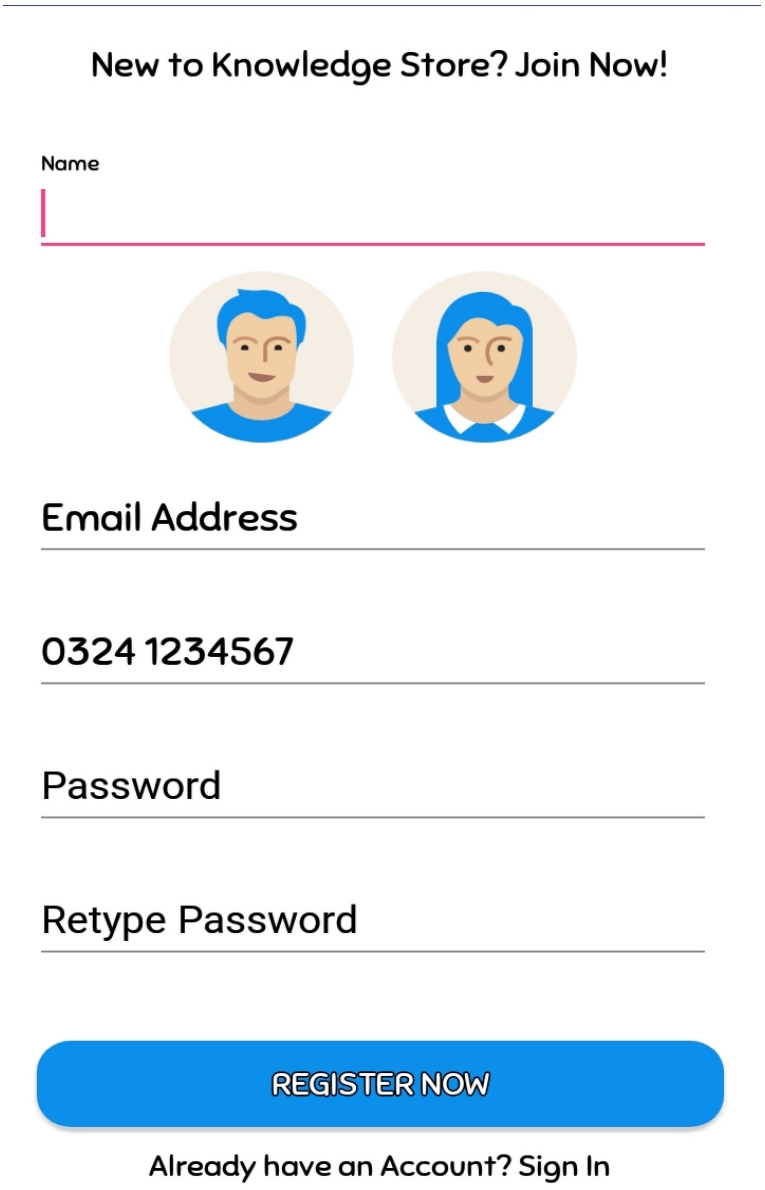

FIGURE 4.2: Customer Sign Up Screen

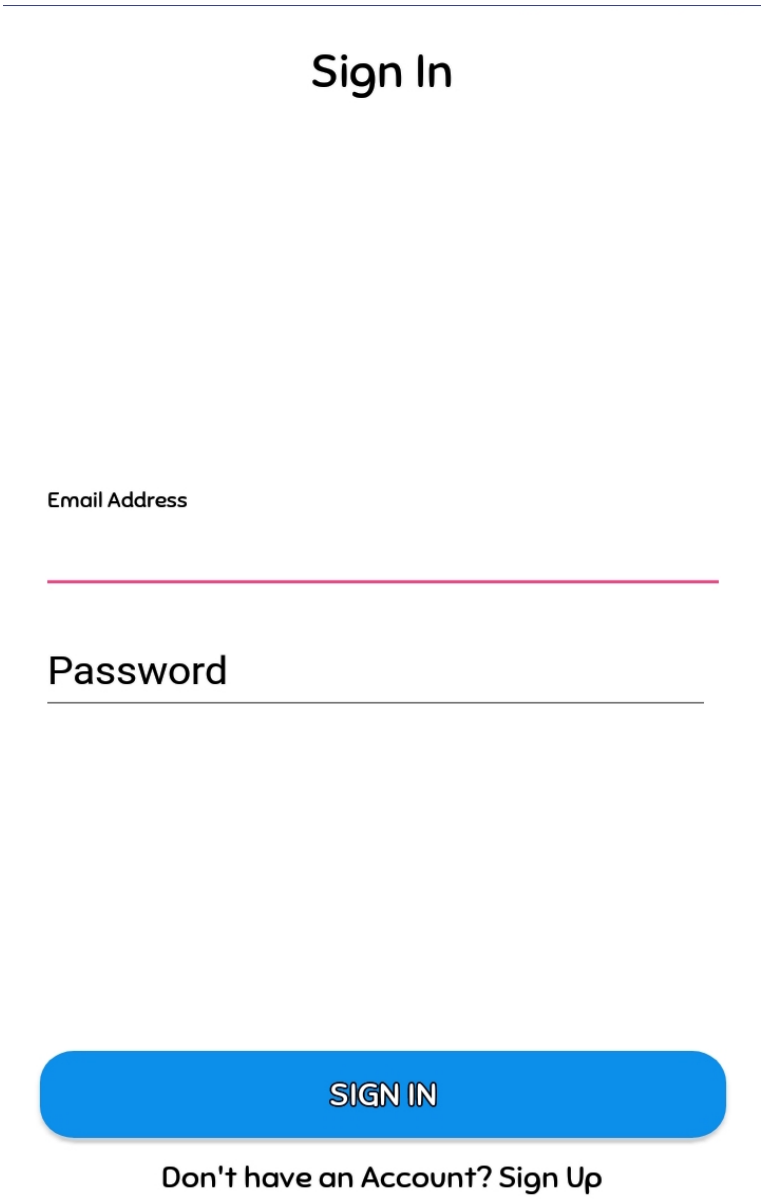

FIGURE 4.3: Customer Sign In Screen

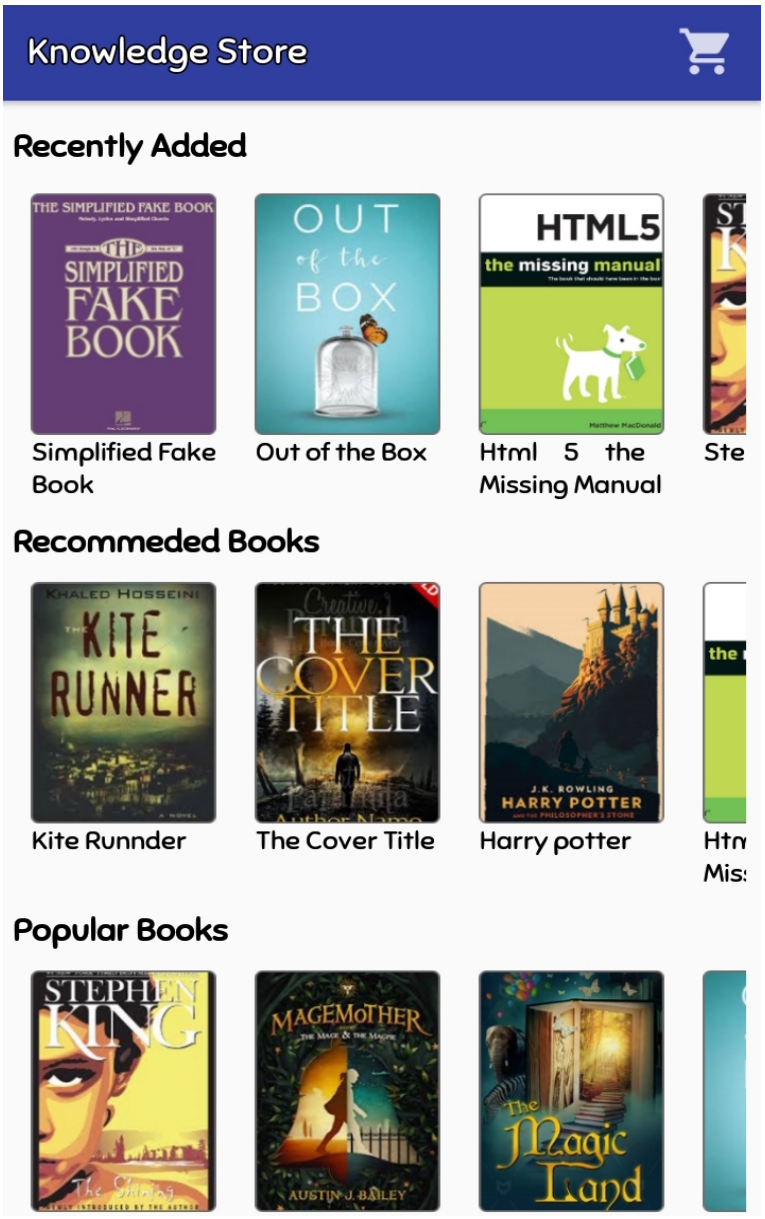

FIGURE 4.4: Home Page Screen

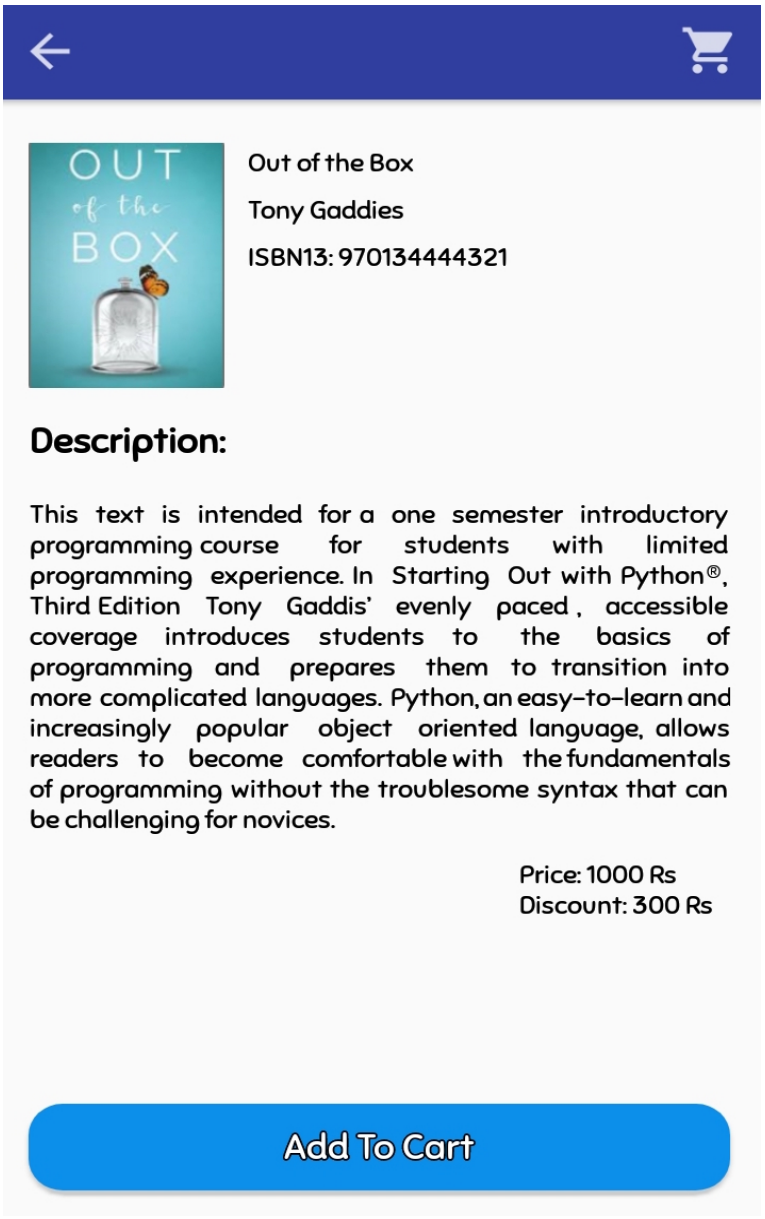

FIGURE 4.5: View Book Screen

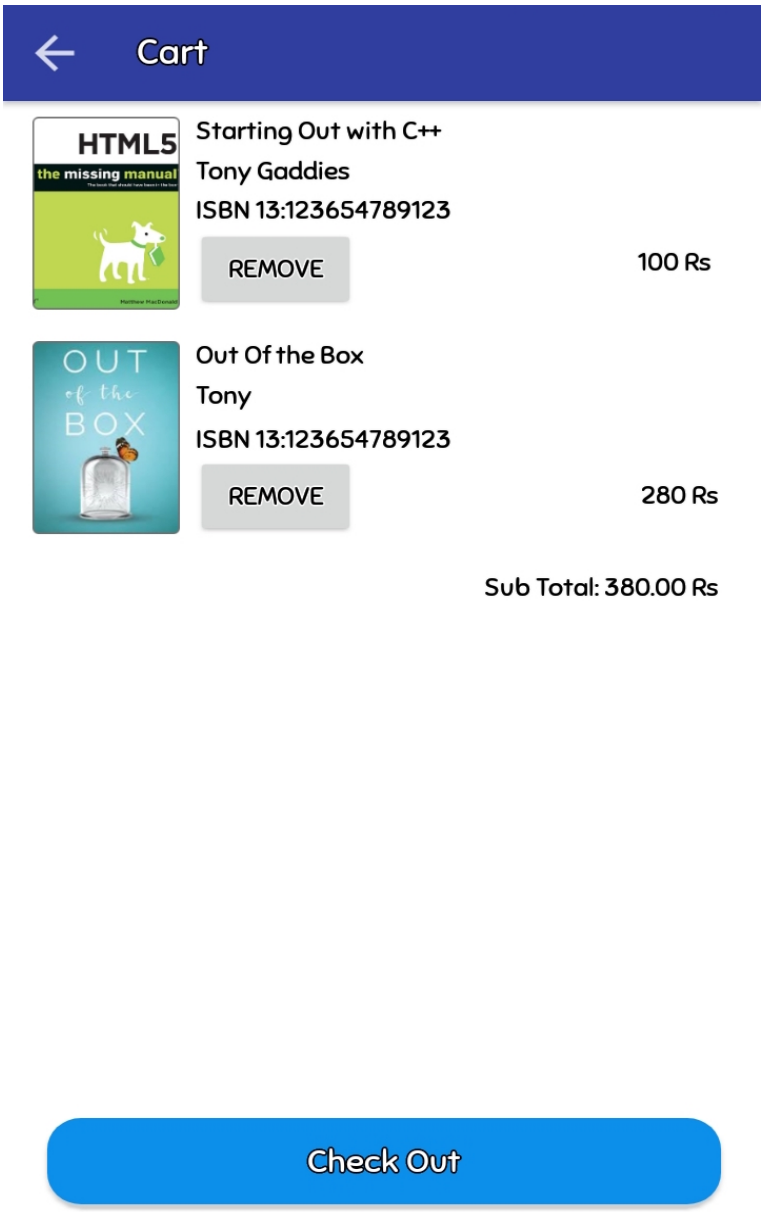

FIGURE 4.6: Shopping Cart Screen