Project Report On

ONLINE BOOK STORE

Submitted in partial fulfilment for the award of Diploma in Advance Computing PG-DAC

Guided By:

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CERTIFICATE

This is to certify that the project work under the title ***'Online Book Store'*** is done by **Bhushan Gayakwad, Shankar Naikwade** and **Shubham Patil** in partial fulfilment of the requirement for award of Diploma in Advanced Computing Course.

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Course Coordinator

Date:

ACKNOWLEDGEMENT

This project "**ONLINE BOOK STORE**" was truly a great learning experience for us and we are submitting this work to Advanced Computing Training School (CDAC Netcom Jaipur). We are very glad to mention **Mr. Mahesh Shittlani Sir** for his valuable guidance to work on this project. His guidance and support helped us to overcome various obstacles and intricacies during project work.

Our heartfelt thanks go to **Mr. Kalpesh Tripathi**, our Course Coordinator, PG-DAC who gave all the required support and kind coordination to provide all the necessities.

Contents

1. Introduction

In the world of technology everything has come to our fingertips. We can do a lot of day-to-day activities by using technology. Every sector and industry are using and implementing the technology in their domain so as to simplify their services. As a user, it really simplifies the task for them. Like one can easily do shopping online, order food to eat from his/her favourite restaurant, do online booking for hotels, do online bookings for bus tickets, train tickets, airplane tickets, etc. just by sitting in their comfort using a laptop, desktop or mobile.

Online Book store is an online web application where the customer can purchase books online. Through a web browser the customers can search for a book by its title or author, later can add to the shopping cart and finally purchase using UPI 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 books are divided into many categories based on subject like Software, Database, English, Architecture etc. The Online Book Store Website provides customers with online shopping through a web browser. A customer can, create, sign in to his account, place items into a shopping cart and purchase using his credit card details. The backend of the project has been created using Servlet, and Jdbc.

Whereas the technologies used to develop the front end are HTML, CSS, JavaScript, and jsp.

The relational database i.e. MySQL is used to store the data of the user and the books.

2. Project Overview

2.1 Purpose:

The main objective of the project is to create an online book store that allows users to search and purchase a book based on title, author and subject. The selected books are displayed in a tabular format and the user can order their books online through credit card payment. The Administrator will have additional functionalities when compared to the common user.

2.2 Scope:

The scope of the project was to provide a one-stop solution for the process of Buying books for all the users.

1. The admin/owner of the store can add, update or delete the book details as per the stock.
2. The admin can easily manage user data and their order details.
3. The user can go through the list of all the books.
4. Users can easily check the book details and the prices.
5. Users can easily order books efficiently and conveniently.

2.3 Feasibility Study:

A feasibility study is carried out to select the best system that meets performance requirements. The main aim of the feasibility study activity is to determine whether it would be financially and technically feasible to develop the product. The feasibility study activity involves the analysis of the problem and collection of all relevant information relating to the product such as the different data items which would be input to the system, the processing required to be carried out on these data, the output data required to be produced by the system as well as various constraints on the behaviour of the system.

Before developing and implementing a system we have sure that our system is feasible in the following ways:

- **Technical Feasibility:**

This is concerned with specifying equipment and software that will successfully satisfy the user requirements. The technical needs of the system may vary considerably, but might include:

1. The facility to produce outputs in given time.
2. Response time under certain conditions.
3. Ability to process a certain volume of transaction at a particular speed.
4. Facility to communicate data to distant locations.

In examining technical feasibility, configuration of the system is given more importance than the actual makes of hardware. The configuration should give the complete picture about the system's requirements.

- **Operational Feasibility:**

This is mainly related to human organizational and political aspects. This feasibility study is carried out by a small group of people who are familiar with information system technique and are skilled in system analysis and design process.

Proposed projects are beneficial only if they can be turned into information system that will meet the operating requirements of the organization. This test of feasibility asks if the system will work when it is developed and installed.

- **Economical Feasibility:**

Economic analysis is the most frequently used technique for evaluating the effectiveness of a proposed system. More commonly known as cost/Benefit analysis, the procedure is to determine the benefits and savings that are expected from a proposed system and compare them with costs. If benefits outweigh costs, a decision is taken to design and implement the system. Otherwise, further justification or alternative in the proposed system will have to be made if it is to have a chance of being approved. This is an outgoing effort that improves in accuracy at each phase of the system life cycle.

3. Overall Description: -

3.1 Product Features

Online Book store is an online web application where the customer can purchase books online. Through a web browser 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 Software, Database, English, Architecture etc.

3.2 Technology Used

- **BACK END**
  - Servlet
  - JDBC
  - MySQL
  - Maven

- **FRONT END**

  JSP
  HTML
  CSS
  JavaScript
  Bootstrap

3.3 User Classes

- **Admin**

The admin class represents complete authority over the system an admin can

1. Admin can update his own profile.
2. Admin can update and delete the books.
3. The purchased by customer for particular book can be viewed by admin by searching customer Id
4. Admin can add book, delete a particular book, and edit the information

- **Customer**

1. This system customer can easily register using Signup.
2. The customer can easily see his profile and update profile.
3. Customer can see books and print the details.
4. 4. Customer can see all details of the booked movie
5. Customer can see booking history.

3.3 General Constraints

The "Online Book Store" should run on all Internet Browser and all processors which supports the Internet Browser.

➢ Software Requirements Specification

1. Functional Requirements

- **Complete System**

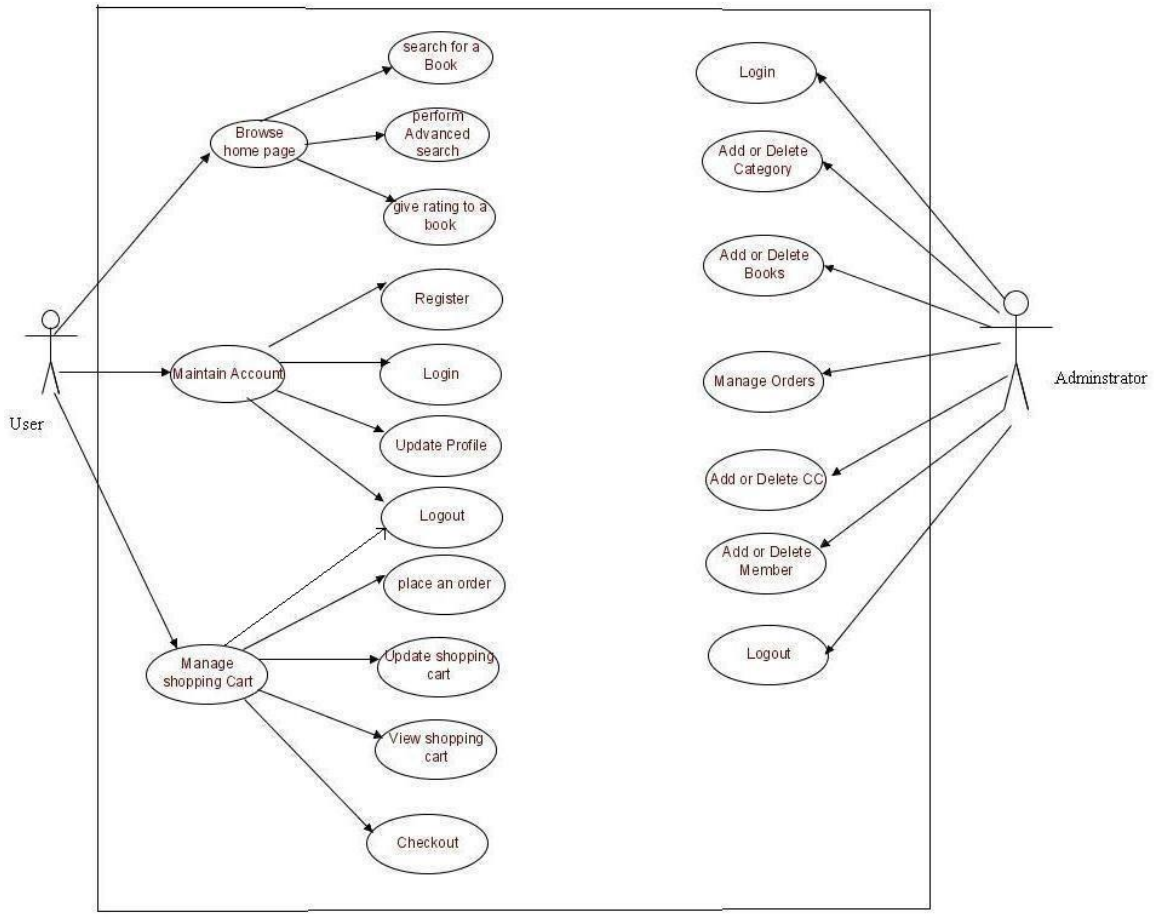


Figure 2: Use case diagram

There is entry interface that is intended to admin, and customer to login to the system from their own account. If the customer is not registered, he/she can register using sign- up. User must enter the login credentials i.e., Email-Id and Password information for Login. ➢

Scenario 1: Mainline Sequence

1. **Admin:** Enter Admin Email-Id and Password.
2. **System:**
    1. Display the Admin dashboard where admin can see admin profile and update profile.
    2. Admin can add book.
    3. View number of customers.
    4. Edit particular book details.
    5. Can also remove book.

➢ **Scenario 2: Mainline Sequence**

1. **Customer:** Enter customer Email-Id and Password
2. **System:**
    1. Display the Home Page.
    2. View details of book and buy Books.
    3. Customer can view order details.

➢ Sequence Details

1) Search for a Book

- **Purpose**: 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.
- **Actor:** User
- **Input:** The user will select a category and enter title in a text box provided.
- **Output:** 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.

2) Register

- **Purpose**: If the user doesn't have an account then he will be asked to register.
- **Actor:** User
- **Input:** The user will enter details in the registration form according to the required fields. The fields include

1. Username
2. Password
3. name
4. email
5. Address
6. Phone

• **Output:** After registration the user will be directed to the main home page.

3) Login

Purpose: If the user wants to get access to all the functionalities of Online Book Store he should login using his username and password.

- **Actor:** User
- **Input:** The user will enter his username and password.
- **Output:** If it is a successful login the user will be directed to the main home page. Else if the user enters invalid information he will be asked to check the entered information.

4) Logout

- **Purpose**: If the user wants to end his session and sign out of the website then he can use the logout option.
- **Actor:** User
- **Input:** The user will click the logout button.
- **Output:** The user's account session comes to an end and he should login again if he wants to enter into the website.

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.

Administrator

1) Login

- **Purpose**: If the Administrator wants to get access to all the functionalities of Online Book Store he should login using his username and password.
- **Actor:** Administrator
- **Input:** The Administrator will enter his username and password.
- **Output:** If it is a successful login the Administrator will be directed to his menu page. Else if the Administrator enters invalid information he will be asked to check the entered information.

2) Add or Delete Category

- **Purpose**: If the Administrator wants to add or delete a book category then he can insert or delete a book category using his administration rights and the category table will be updated in the database.
- **Actor:** Administrator
- **Input:** If the Administrator wants to add a book category the he should click the insert link button in the category page else he can delete a particular selected book category.
- **Output:** The updated categories list will be displayed in the main home page.

3) Add or Delete Book

- **Purpose**: If the Administrator wants to add or delete a book then he can insert or delete a book using his administration rights and the book table will be updated in the database.
- **Actor:** Administrator
- **Input:** If the Administrator wants to add a book the he should click the insert link button in the book page and fill the following fields related to the book.
    1. Title
    2. Author
    3. Price
    4. Category
    5. Notes

6. Product url

If he wants to delete a book he can click the delete button to remove it from the database.

- **Output:** The updated books list will be displayed in the main home page under their particular category.

4) Manage Orders

- **Purpose**: If the Administrator wants to add or delete an order then he can insert or delete an order using his administration rights.
- **Actor:** Administrator
- **Input:** If the Administrator wants to add an order the he should click the insert link button in the orders page else he can delete a particular selected order **Output:** The updated orders list will be processed to the users.

5) Logout

- **Purpose**: If the Administrator wants to end his session and sign out of the website then he can use the logout option.
- **Actor:** Administrator
- **Input:** The Administrator will click the logout button.
- **Output:** The Administrator's account session comes to an end and he should login again if he wants to enter into the website.

➢ **Non-Functional Requirements**

❖ **Performance Requirement**

1. The time between request and response should be less
2. Minimum time should be taken by the application to display the result.
3. In case of power failure, the data should be stored in the state that was last saved by the user

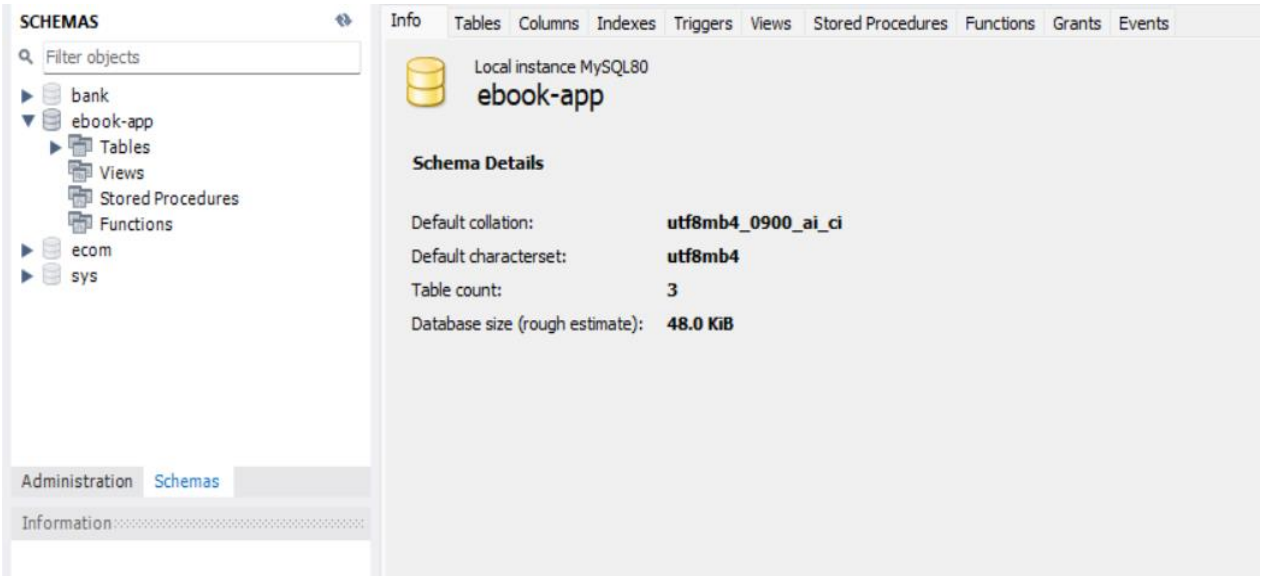
❖ **Security Requirement**

❖ Passwords shall never be viewable at the point of entry or at any other time.

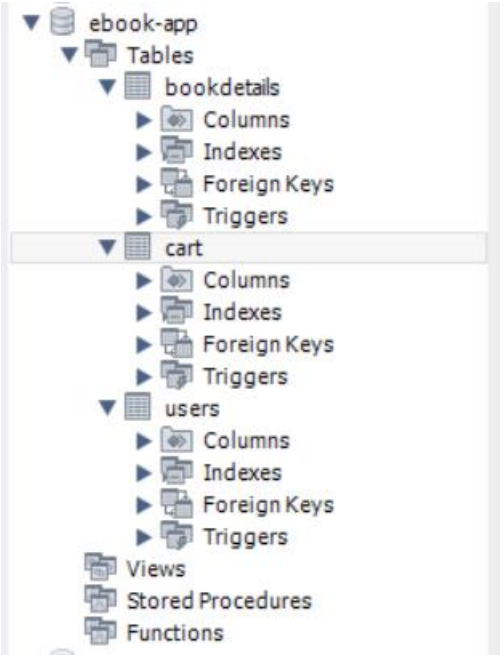
❖ Duplicate invoice will not be generated of same seats for same show.

➢ Database Tables

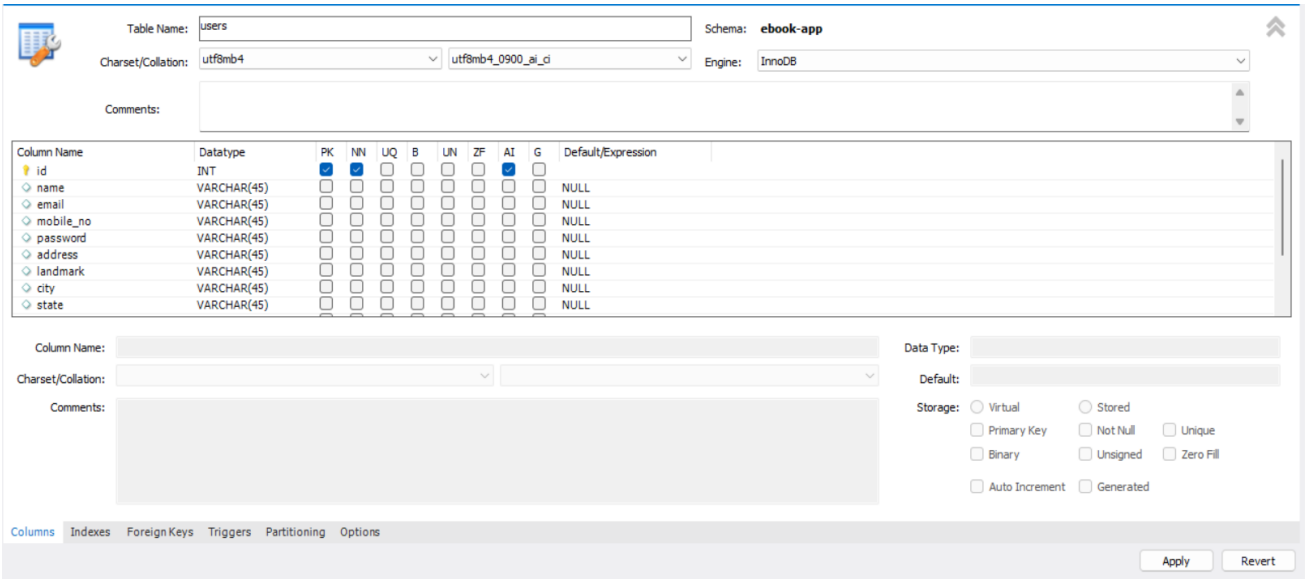
Database



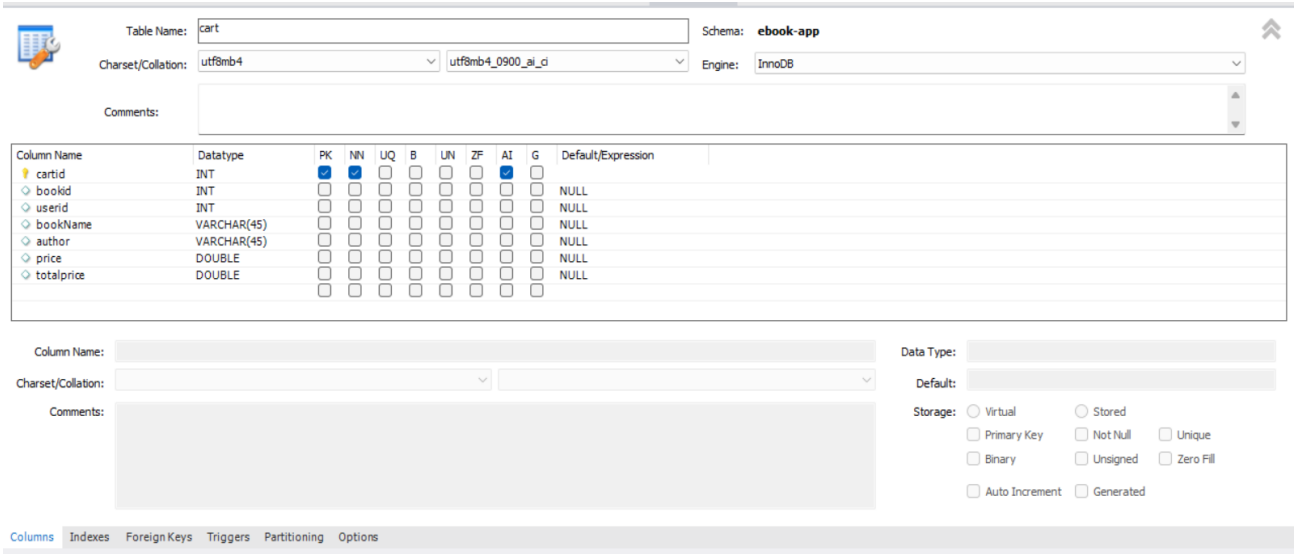
Tables in Database



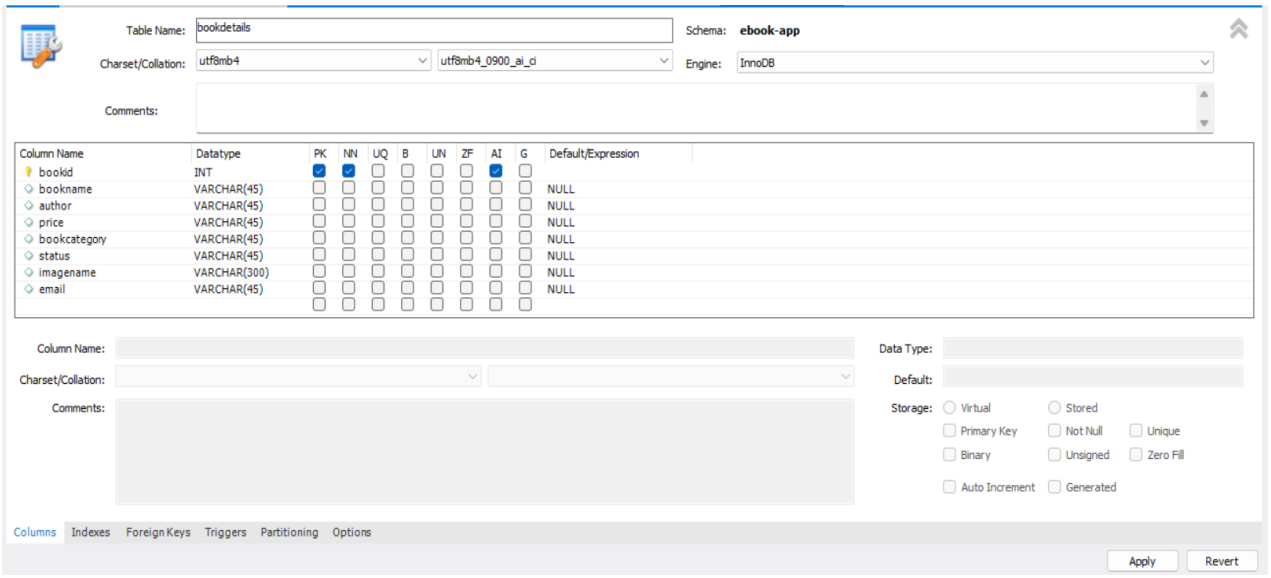
User Table



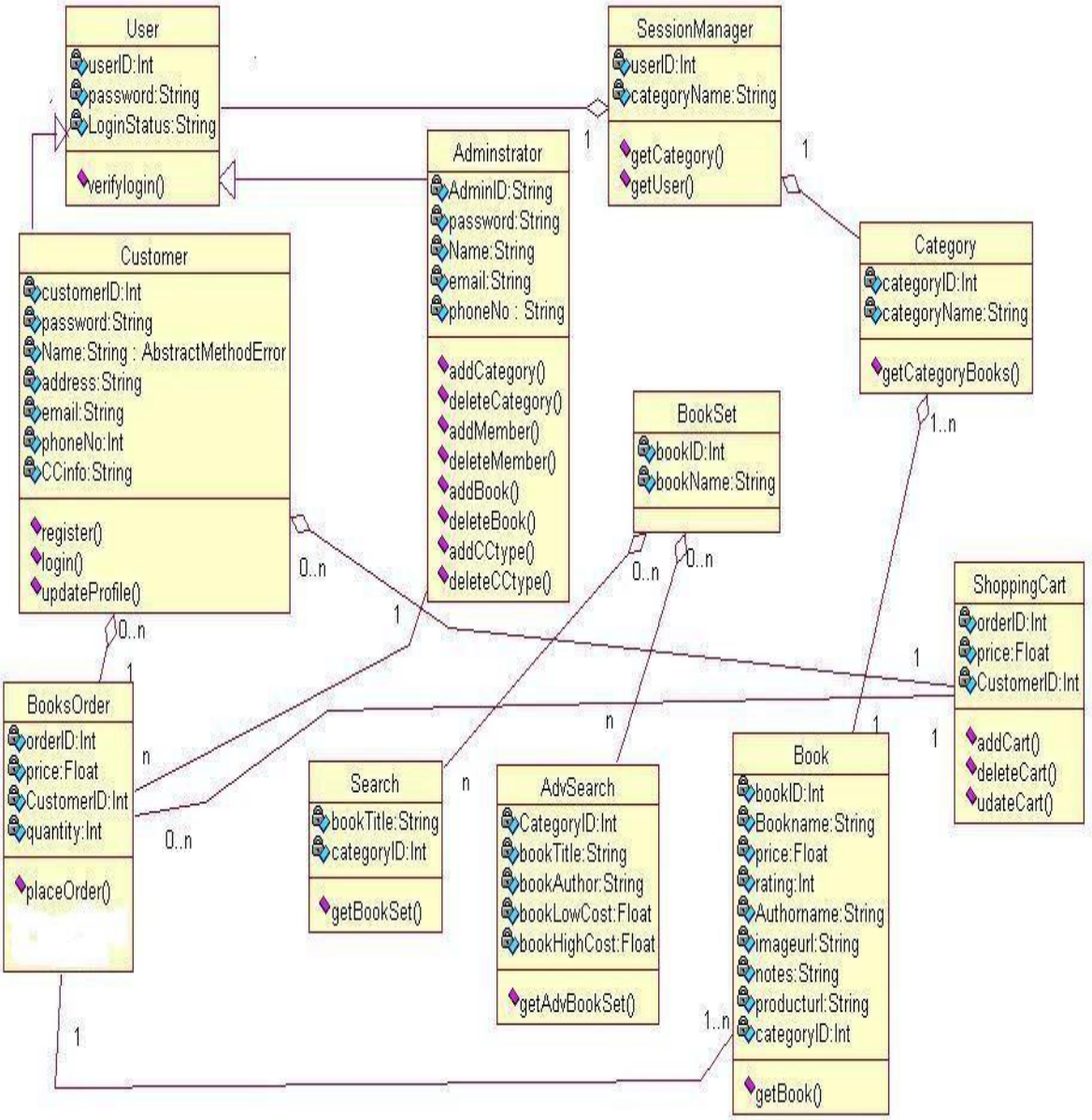
Cart Table



Product Table



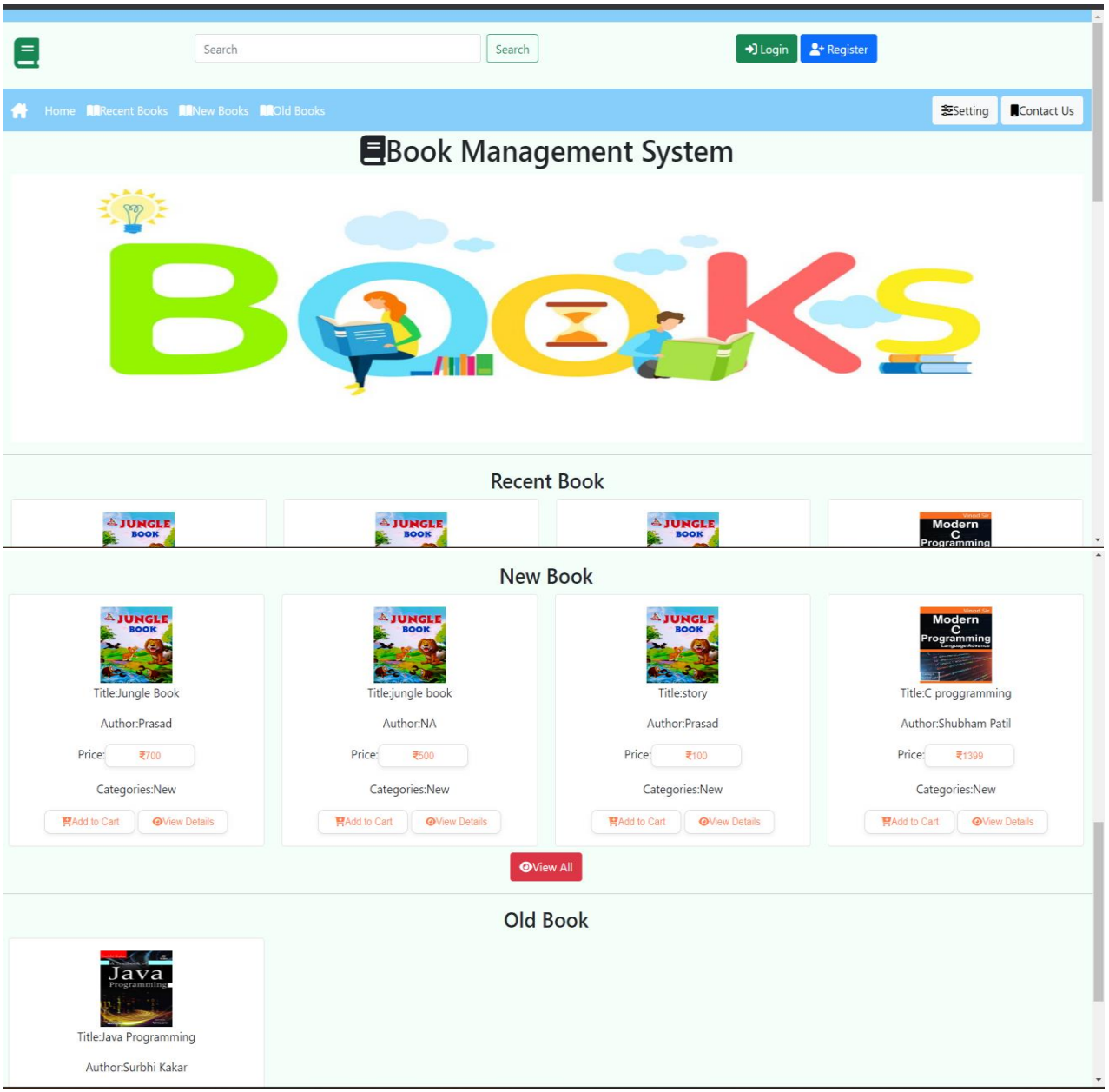
Entity Relationship Diagram



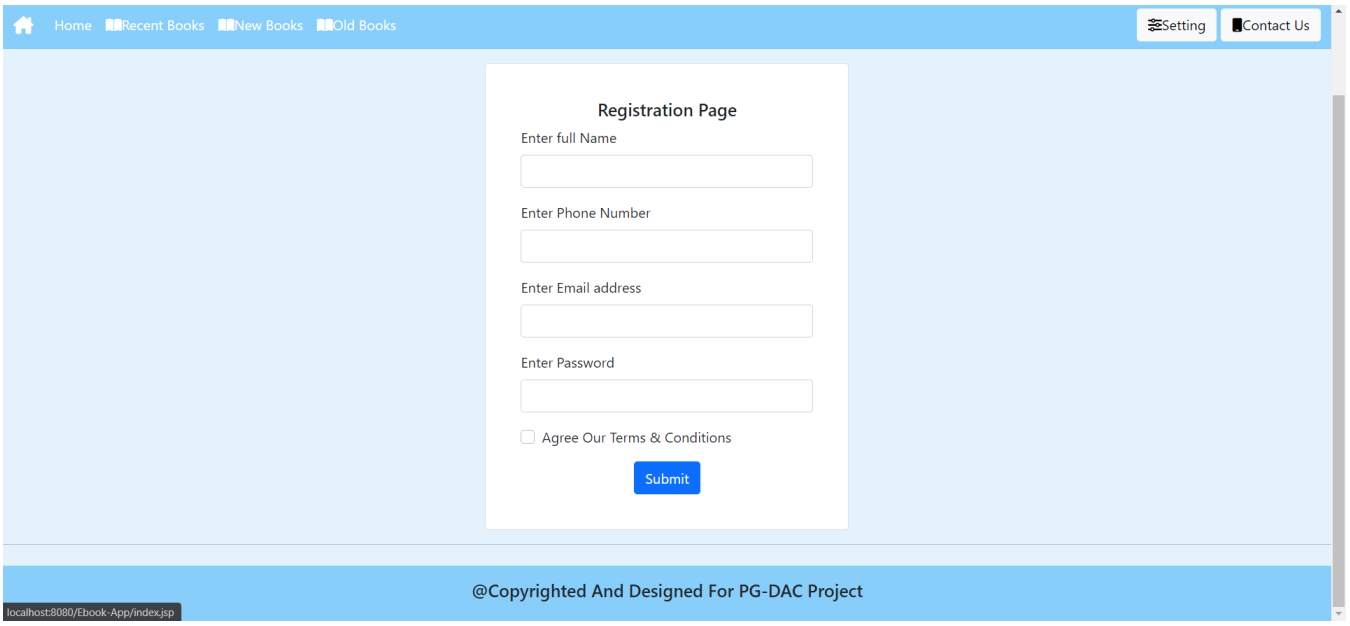
1. Admin and Customer Activity Diagram

➢ Interface

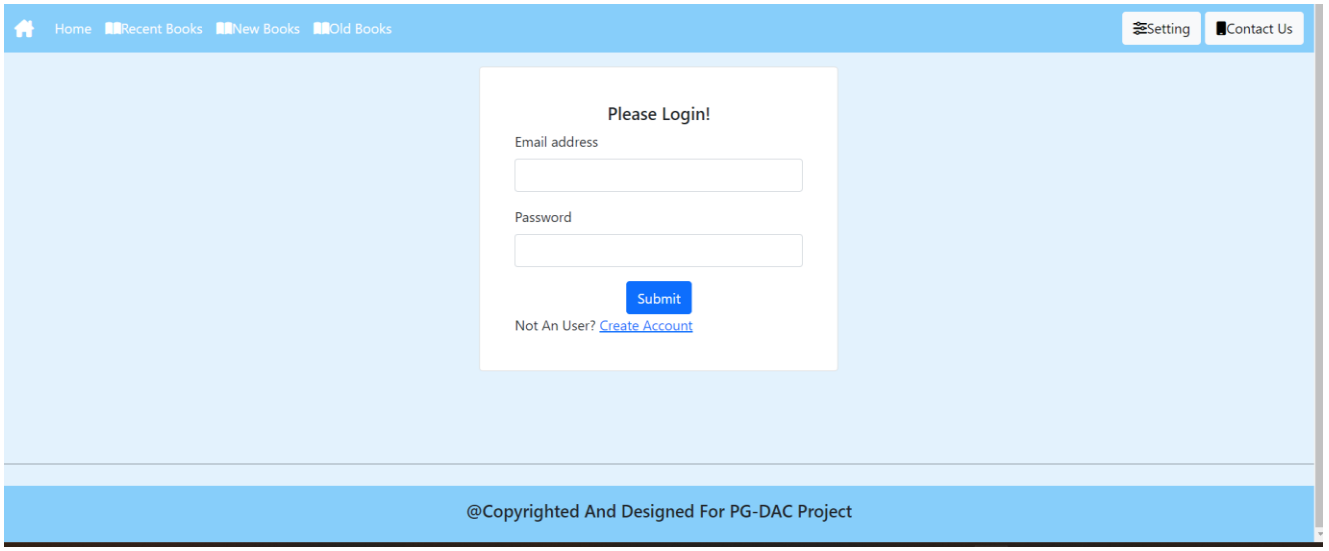
1) Home Page



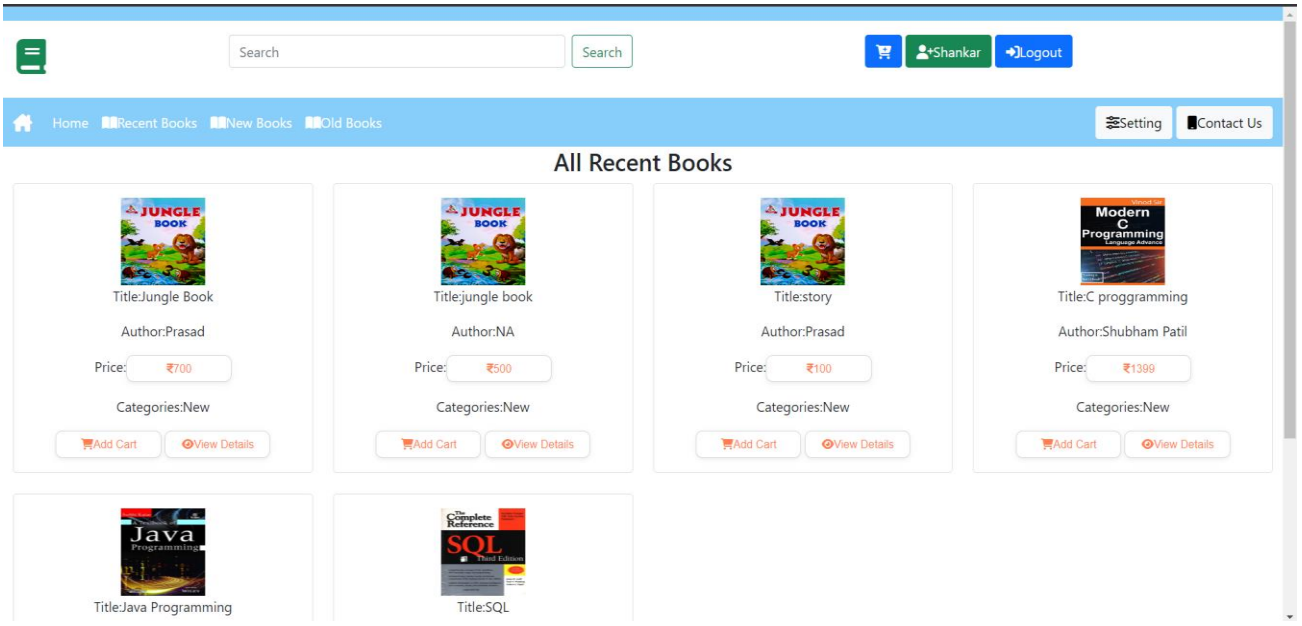
2) Registration Page



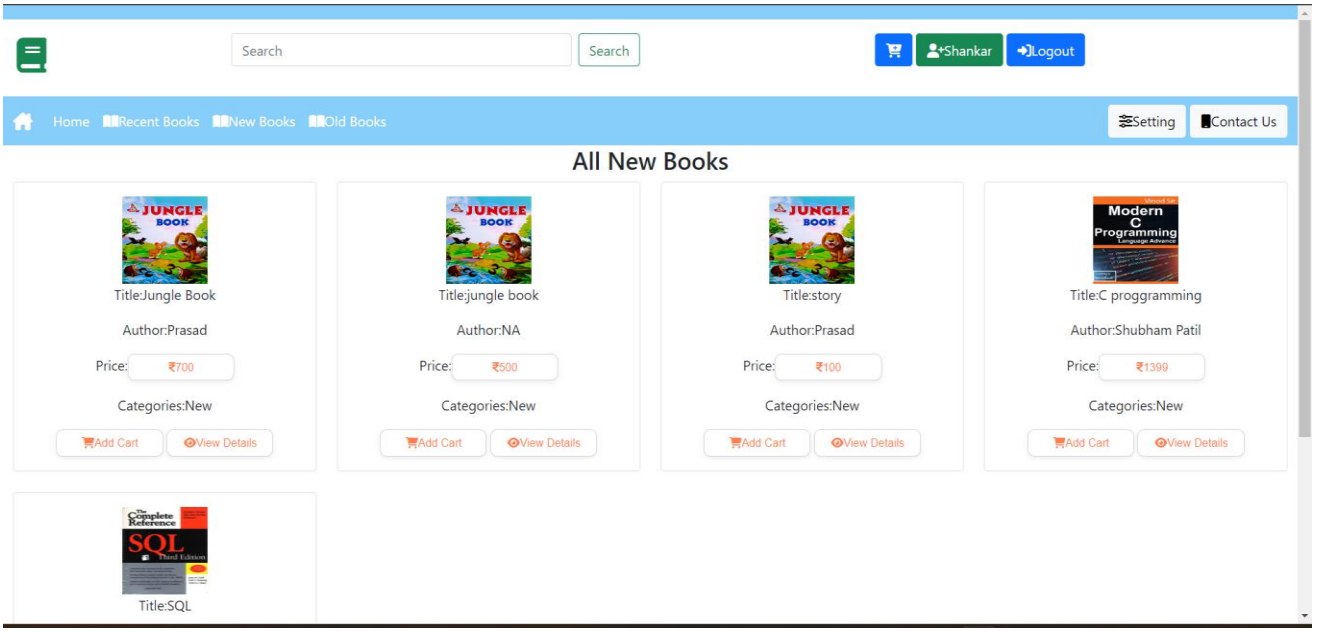
3) Login



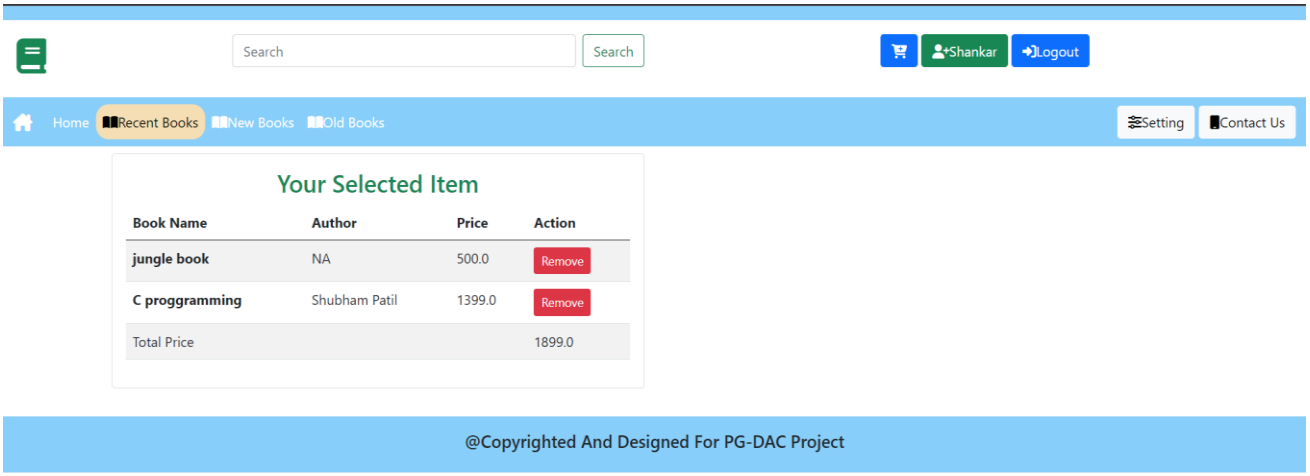
4) All Recent Book lists



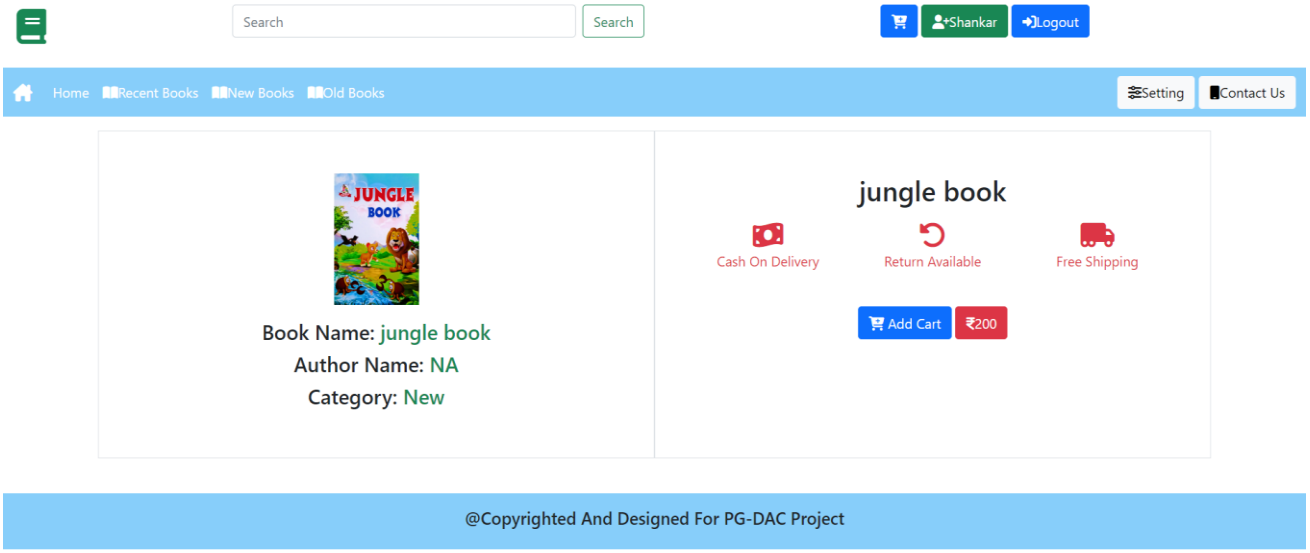
5) All New Book



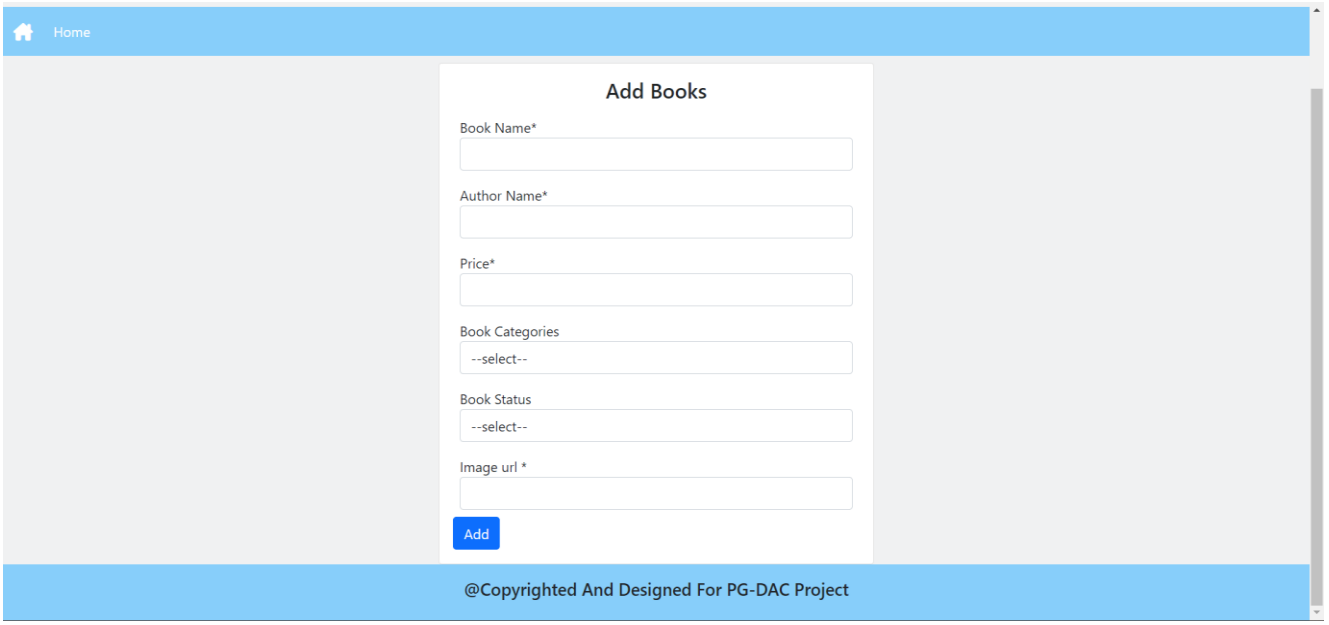
6)**Cart Page**



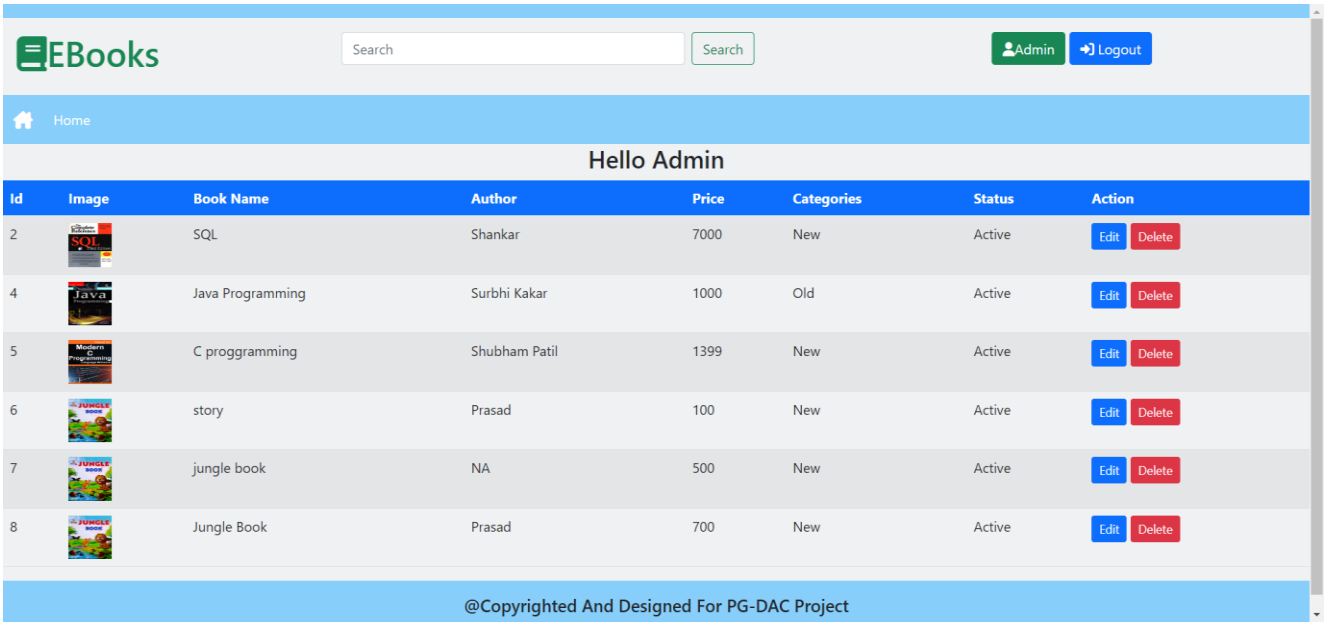
7)**View Details Page**



8)Admin-Add Books Page



9)Admin-All Books Page



1. TESTING

Software testing is an investigation conducted to provide stakeholder with information about the quality of the product or service under test, software testing can be stated as the process of validating and verifying that a software that a software program/product:

1) Meets the requirement that guided its design and development
2) Works as expected and
3) Can be implemented with the same characteristics

UNIT TESTING: Unit testing also known as compound testing refers to tests that verify the functionality of a specific section of code, usually at the function level, In an object oriented, this is usually at the class level and the minimal unit tests include the construction and destruction. In this project we have been tested every from for input to check for script applied to the forms and stored efficiently in the database. INTEGRATION TESTING: Data can be across an interface and verify the interface between compound against a software design. Software compounds may be integrated in an iterative way or all together ("big bang")

BLACK BOX TESTING :

It treats the software as a black box without any knowledge of internal implementation. Black box testing is a technique of software testing which examines the functionality of software without peering into its internal structure or coding. The primary source of black box testing is a specification of requirements that is stated by the customer. In this method, tester selects a function and gives input value to examine its functionality, and checks whether the function is giving expected output or not.If the function produces correct output, then it is passed in testing, otherwise failed. The test team reports the result to the development team and thentests the next function. After completing testing of all functions if there are severe problems, then it is given back to the development team for correction.

AD HOC TESTING :

This testing we do when the build is in the checked sequence, then we go forAd-hoc testing by checking the application randomly. Ad-hoc testing is also known as Monkey testing and Gorilla testing. It is negative testing because we will test the application against the client's requirement

Futures Scope:

The system excludes the need of maintaining paper movie ticket as all the ticket records are managed electronically. Administrator does not have to keep a manual track of the users. The system automatically calculates number of tickets the system excludes manual bill calculation. Users do not have visit the theatre for ticket booking. There is no need of manually going to theatre fir booking tickets thus it saves human efforts and resources

References:

1.www.w3school.co m
2.https://docs.oracle.com/javase/8/docs/api/index.html?overvi ew- summary.html

Conclusion:

This software reduces the amount of manual data entry and gives greater efficiency. The User Interface of it is very friendly and can be easily used by anyone. It also decreases the amount of time taken to write details and other modules.