

A PROJECT ON Online Book Shop

SUBMITTED IN

PARTIAL FULFILLMENT OF THE REQUIREMENT

FOR THE COURSE OF DIPLOMA IN ADVANCED COMPUTING FROM CDAC



SUNBEAM INSTITUTE OF INFORMATION TECHNOLOGY

Hinjawadi, Pune

SUBMITTED BY

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ACKNOWLEDGEMENT

A project usually falls short of its expectation unless aided and guided by the right persons at the right time. We avail this opportunity to express our deep sense of gratitude towards Mr. Nitin Kudale (Center Coordinator, SIIT, Pune) and Mr. Yogesh Kolhe (Course Coordinator, SIIT ,Pune) .

We are deeply indebted and grateful to them for their guidance, encouragement and deep concern for our project. Without their critical evaluation and suggestions at every stage of the project, this project could never have reached its present form.

Last but not the least we thank the entire faculty and the staff members of Sunbeam Institute of Information Technology, Pune for their support.

Mr. Prajyot P. Pomannawar

DAC Aug 2019 Batch,
SIIT Pune

CERTIFICATE

This is to certify that the project work under the title 'Online Book Shop' is done by Mr. Prajyot P. Pomannawar in partial fulfillment of the requirement for award of Diploma in Advanced Computing Course.

Project Guide

**Mr. Yogesh Kolhe
Course Co-Coordinator**

Date: 30th Jan, 2020

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1. INTRODUCTION TO PROJECT

The web based “Online Book Shop” project is an attempt to stimulate the basic concepts of online book shopping. The system enables the customer to do the things such as, register to website, login, search for their favourite book, choose a particular book, view its description and availability, add books to cart, make payment and order book, manager address, change password, edit profile and logout.

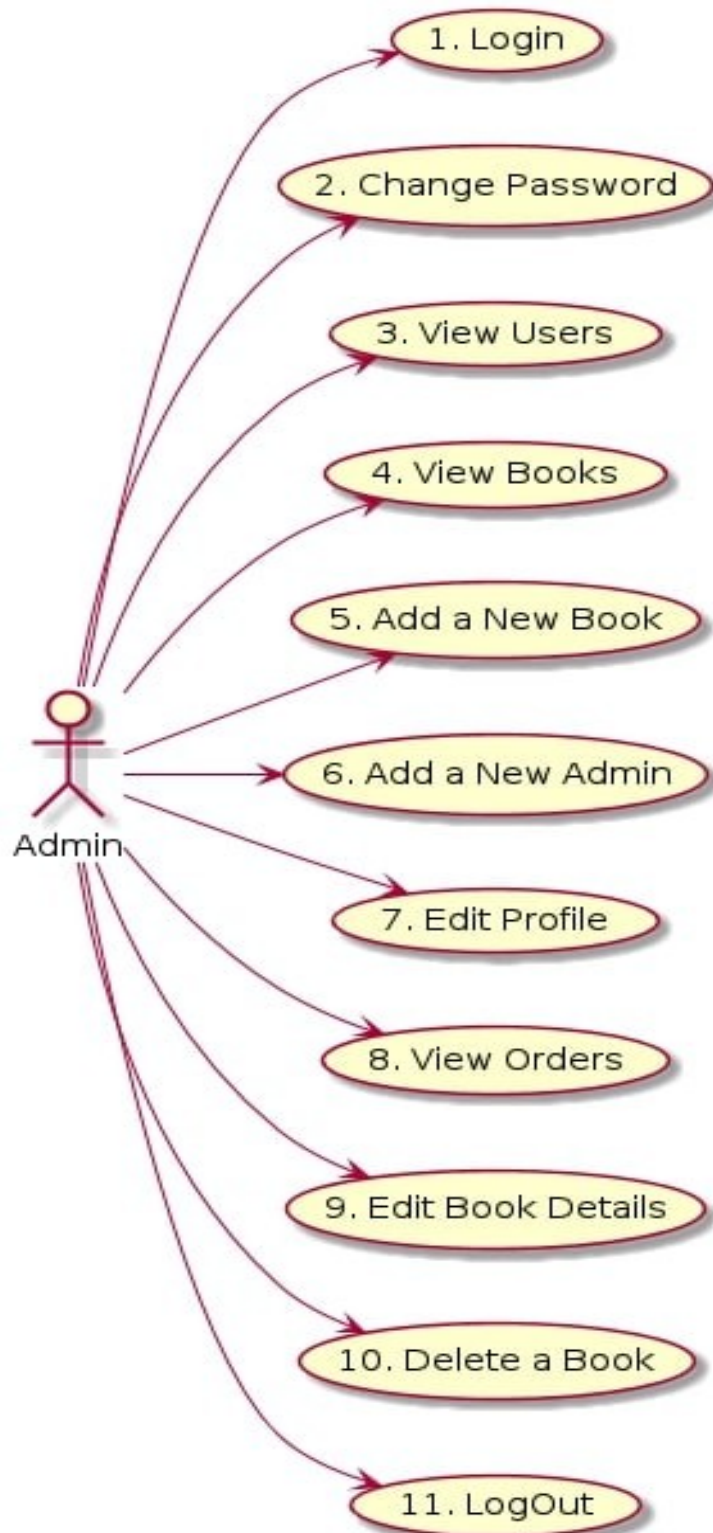
The system provides you Quick Search facility that provides you details about books . But if user want to order a particular book then he/she must require login into your account.

The system allows the admin person to register a new admin, add a new book, edit book details, delete a particular book, view orders, edit password, edit his/her own profile etc.

To store data of books and users, this project uses mysql database at the backend and to perform various operation on that database, it uses J2EE+Spring-hibernate-RestController technology on server side. To develop attractive UI pages, Angular version 8 is used on front end side.

2. REQUIREMENTS

2.1 Admin Side Functional Requirements:-



2.1.1 Log In:

When user will login, he/she will be checked for the role of the user. There are mainly two roles, ADMIN and USER. The role is checked at the backend as per email Id which is unique identity of user and according to role, user is navigated to respective web pages.

For admin role, many functionalities are provided as shown in above diagram.

2.1.2 Change Password:

On clicking on “change password” link, admin is navigated to a new page where by default his/her email is shown, and 2 input boxes are provided one for entering old password and another for entering new password. After entering these details and clicking on submit button, first of all, admin’s old password is checked with the database details. If submitted old password and old password provided at the time of registration is same then only new password is saved in the database other wise a popup message is shown for wrong old password. Once new password is set, these changes are reflected in the backend and from next login, user can login with new password.

2.1.3 View Users:

On Clicking on “View Users” link, admin is navigated to a page where list of all registered users appear in tabular format. Here three buttons provided. On clicking delete button, record of particular user is deleted from the database. On this page a button is provided for adding a new admin. For adding a new admin, admin has to provide all the necessary information of new admin such as first name, last name, email, password, age, gender, mob number etc which are columns of user table in backend database. And third button is back to previous page.

2.1.4 View Books:

On Clicking on “View Books” link, admin is navigated to a page where list of all books appear in tabular format. Admin can add a new book on clicking “add new” button. While adding a new book, all its necessary information such as title, author, type of book, ISBN No, price, and qty. Admin can update book details. On clicking update button in front of a particular book, admin is navigated to another page where, previously stored information of that

respective book is shown to admin where he can perform changes into the information. After clicking on submit button, changes are saved on backend side.

2.1.5 Edit Profile:

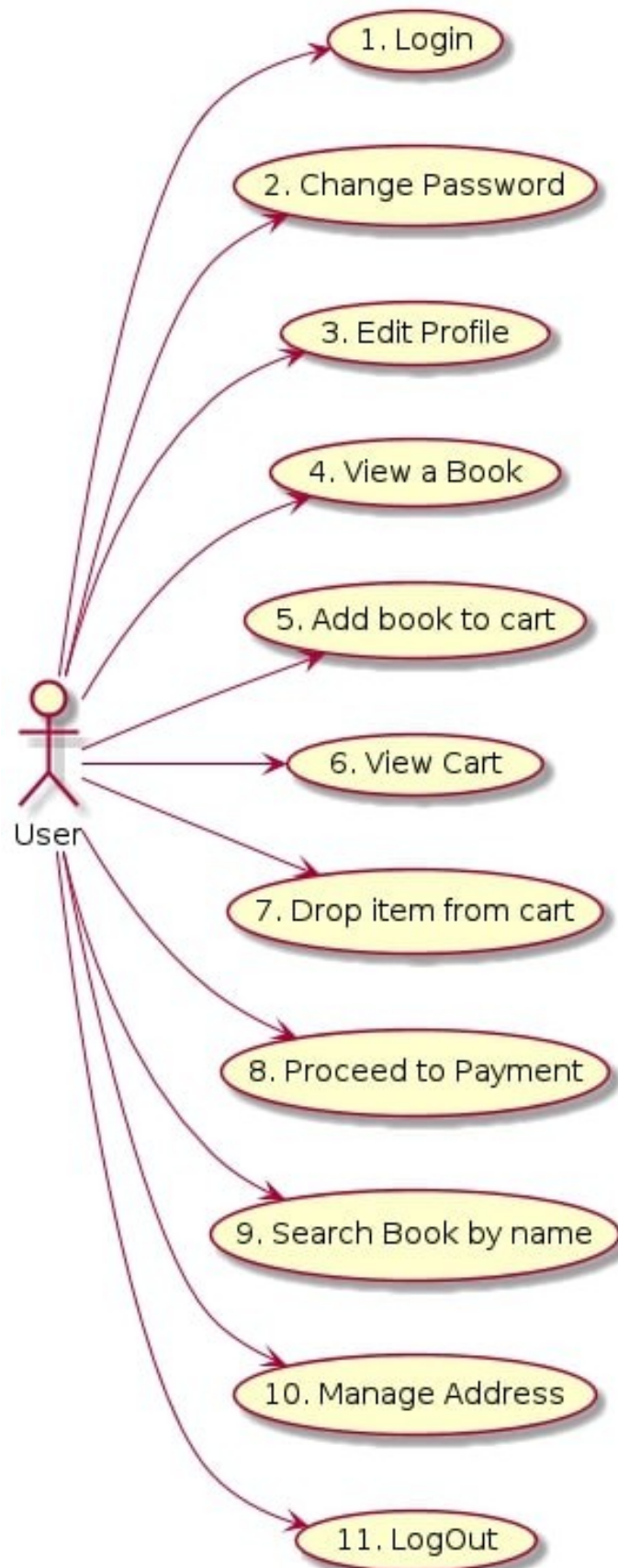
After clicking on this link, user is navigated to a new page where previously stored information of that logged admin is displayed where he can perform changes and after clicking on submit button those changes are permanently saved on backend side.

2.1.6 View Orders:

All orders from all customers are displayed in tabular format to the admin. He can use this information for developing order reports.

So these are the different functionality provided for admin side. For every functionality, from front end a method is called written in the user controller at the backend via logic written in data service. From controller, control is passed to dao layer where business logic is written to perform operations on database side. After completing all the work, admin can log out simply by clicking on logout button and respective users session gets destroyed.

2.2 Customer Side Functionalities:



2.2.1 Log In:

When user will login, he/she will be checked for the role of the user. There are mainly two roles, ADMIN and USER. The role is checked at the backend as per email Id which is unique identity of user and according to role, user is navigated to respective web pages.

For user role, many functionalities are provided as shown in above diagram.

2.2.2 Change Password:

On clicking on “change password” link, user is navigated to a new page where by default his/her email is shown, and 2 input boxes are provided one for entering old password and another for entering new password. After entering these details and clicking on submit button, first of all, user’s old password is checked with the database details. If submitted old password and old password provided at the time of registration is same then only new password is saved in the database other wise a popup message is shown for wrong old password. Once new password is set, these changes are reflected in the backend and from next login, user can login with new password.

2.1.5 Edit Profile:

After clicking on this link, user is navigated to a new page where previously stored information of that logged user is displayed where he can perform changes and after clicking on submit button those changes are permanently saved on backend side.

2.2.6 View a Book:

When user login, after knowing that he is a customer, he is navigated to a default page where he can see all books in the collection in tabular format. In front of each book, a view button is provided. On clicking on this button, user is navigated to a page where detailed information of that perticular book is displayed on the screen and user is asked to enter the quantity of books he/she wants to purchase. If he is clicking on add to cart button then that perticular book along with user entered qty is added to the users cart. Details are reflected in the cart table. A popup box appears on the screen saying Item Added to Cart!

2.2.7 View Cart

On clicking on this link, user can view all the items he has added to the cart during last login or current login. Information such as Book title, book id, cart id, book quantity, price per book and amount is displayed in cart table. Along with this information, in front of each book added into the cart, a drop button is provided to drop that particular item from the cart. There is a button provided for proceeding to the payment procedure.

2.2.8 Payment

On clicking proceed to pay button provided on cart section, user is navigated to the payment page where sum of all entries in amount column in the cart table is displayed to the user as total payable amount which he needs to pay to complete the order process. User needs to fill all the card payment details to complete the transaction. After filling all details when user click on “pay” button, a message box popup on screen saying “Order placed Successfully”.

2.2.9 Manage Address:

Each user is asked for one address as delivery address at the time of registration process. Later on he/she can manage this address. Facility is provided such that user can edit this address. After clicking on edit button, Previously stored address details are displayed to the user and he/she can edit it as per requirement and then can save those changes to the backend side.

So these are the different functionality provided for customer side. For every functionality, from front end a method is called written in the user controller at the backend via logic written in data service. From controller, control is passed to dao layer where business logic is written to perform operations on database side and results of those operations are sent back from dao to controller and from controller to service in angular and from service to respective component in angular. After completing all the work, User can log out simply by clicking on logout button and respective users session gets destroyed.

Authorization is provided for each page except the login and home page. So that if user tries to access any other page directly then each time it is checked whether user is logged in or not. User gets navigated to the searched page if and only if he is logged in to the system, if not then he is navigated first to the login page and then he/she can go to required page. This checking is carried out using another service named AuthService in the front end side.

3. DATABASE DESIGN

3.1 Database Design

The following table structures depict the database design.

Table 1: User_Info:

Field	Type	Null	Key	Default	Extra
u_id	int(11)	NO	PRI	NULL	auto_increment
age	int(11)	YES		NULL	
email	varchar(20)	YES	UNI	NULL	
first_name	varchar(20)	YES		NULL	
gender	varchar(10)	YES		NULL	
image	longblob	YES		NULL	
last_name	varchar(20)	YES		NULL	
mob_no	varchar(10)	YES		NULL	
password	varchar(20)	NO		NULL	
role	varchar(20)	YES		NULL	

Table 2: Book_Info:

Field	Type	Null	Key	Default	Extra
b_id	int(11)	NO	PRI	NULL	auto_increment
ISBN	int(11)	YES		NULL	
author	varchar(30)	YES		NULL	
count	int(11)	YES		NULL	
image	longblob	YES		NULL	
price	double	NO		NULL	
publication	varchar(30)	YES		NULL	
title	varchar(30)	YES		NULL	
type	varchar(30)	YES		NULL	

Table 3: Cart:

Field	Type	Null	Key	Default	Extra
cart_id	int(11)	NO	PRI	NULL	auto_increment
amount	double	YES		NULL	
book_id	int(11)	YES		NULL	
title	varchar(50)	YES		NULL	
price	double	YES		NULL	
Qty	int(11)	YES		NULL	
user_id	int(11)	YES	MUL	NULL	

Table 4: Address:

Field	Type	Null	Key	Default	Extra
a_id	int(11)	NO	PRI	NULL	auto_increment
city	varchar(20)	YES		NULL	
country	varchar(20)	YES		NULL	
house_no	int(11)	YES		NULL	
pin	int(11)	YES		NULL	
state	varchar(20)	YES		NULL	
street	varchar(20)	YES		NULL	
u_id	int(11)	YES	MUL	NULL	

Book_Info and User_Info are two independent tables as these tables dont contain any foreign key. There is one-to-one association between user and address (Each user has one address.) In this relation, User is inverse entity and address is owining entity There is one-to-many association exist between user and cart (each user may have multiple items in cart). In this case user is inverse entity and cart is owninig entity.

4. CODING STANDARDS IMPLEMENTED

Naming and Capitalization

Below summarizes the naming recommendations for identifiers in Pascal casing is used mainly (i.e. capitalize first letter of each word) with camel casing (capitalize each word except for the first one) being used in certain circumstances.

Identifier	Case	Examples	Additional Notes
Class	Pascal	User, Book, Address, Cart etc.	Class names should be based on "objects" or "real things" and should generally be nouns . No ‘_’ signs allowed. Do not use type prefixes like ‘C’ for class.
Method	Camel	getUser, getBook updateBookDetails etc.	Methods should use verbs or verb phrases.
Parameter	Camel	userId, bookId etc.	Use descriptive parameter names. Parameter names should be descriptive enough that the name of the parameter and its type can be used to determine its meaning in most scenarios.
Interface	Pascal with "I" prefix	IuserDao, IbookDao etc.	Do not use the ‘_’ sign

5. TEST REPORT

All functionalities of user side and admin side are tested with some input data and checked for exceptions and respective data flow from front end to backend. Result of testing are tabulated as below:

GENERAL TESTING:

SR-NO	TEST CASE	EXPECTED RESULT	ACTUAL RESULT	ERROR MESSAGE
1	Register Page	Redirected to Next page	OK	Nothing
2	Login Page	Pop-up will come	Ok	Please enter username and password again .
3	Reset login	Only users password will be reseted	Ok	Nothing
4	Search a Book	Gives book details	Ok	Nothing
5	View Book	Information of a book should be displayed	Ok	Nothing
6	Add a new Book	Add book info in Book table	Ok	Nothing
7	Add new Admin	Add Admin info in User table	Ok	Nothing
8	Register	Add User info in user table and address info in address table.	Ok	Nothing
9	Add to cart	Entry should be added in cart table	Ok	Nothing
10	Delete a Book	Particular book is deleted	Ok	Nothing
11	Edit a Book	Updated Info should be reflected in database.	Ok	Nothing
12	Logout	It will logout from user profile.	Ok	Nothing
13	Change Password	Only password should be changed after checking old password	Ok	Nothing
14	Edit Profile	Previous info should be displayed and new info updated in database	Ok	Nothing

6. PROJECT MANAGEMENT RELATED STATISTICS

DATE	WORK PERFORMED	SLC Phase	Additional Notes
JAN 13,2020	Requirements Gathering	Feasibility Study	Discussed with course co-ordinator and project guide about project scope and requirement.
JAN 14,2020	Scope and functionalities finalized. UI creation started	UI design phase	-----
JAN 15,2020	UI Design + POJO classes created. Tables in mysql created	Design Phase	Database Design completed
JAN 16,2020	UI Design	Design Phase	-----
JAN 18,2020	Project Phase 1 evaluation Evaluation of front end part.	Phase 1 Evaluation	UI part Completed and checked by project guide.
JAN 20,2020	Coding for business logic development started	Coding Phase	-----
JAN 21, 2020	Business logic development	Coding Phase	-----
JAN 22, 2020	Backend development + Angular Integration	Coding Phase and Unit Testing	-----
JAN 23, 2020	Backend development + Angular Integration	Coding Phase and Unit Testing	-----
JAN 24, 2020	Phase 2 Evaluation + Backend + angular Integration checking	Phase 2 Evaluaiion	-----
JAN 25, 2020	Project Video prepared. Testing of various functionalities and bug fixing	Testing Phase	-----

JAN 27, 2020	The Errors Found were Removed. Final Evaluation	Final Evaluation	-----
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UI Pages:

1. Home Page:

Activities Google Chrome Sun 08:15

Insert title here x Readers' Club x +

localhost:4200

READER'S CLUB

READERS' CLUB.com
...A Book Worm's Paradise

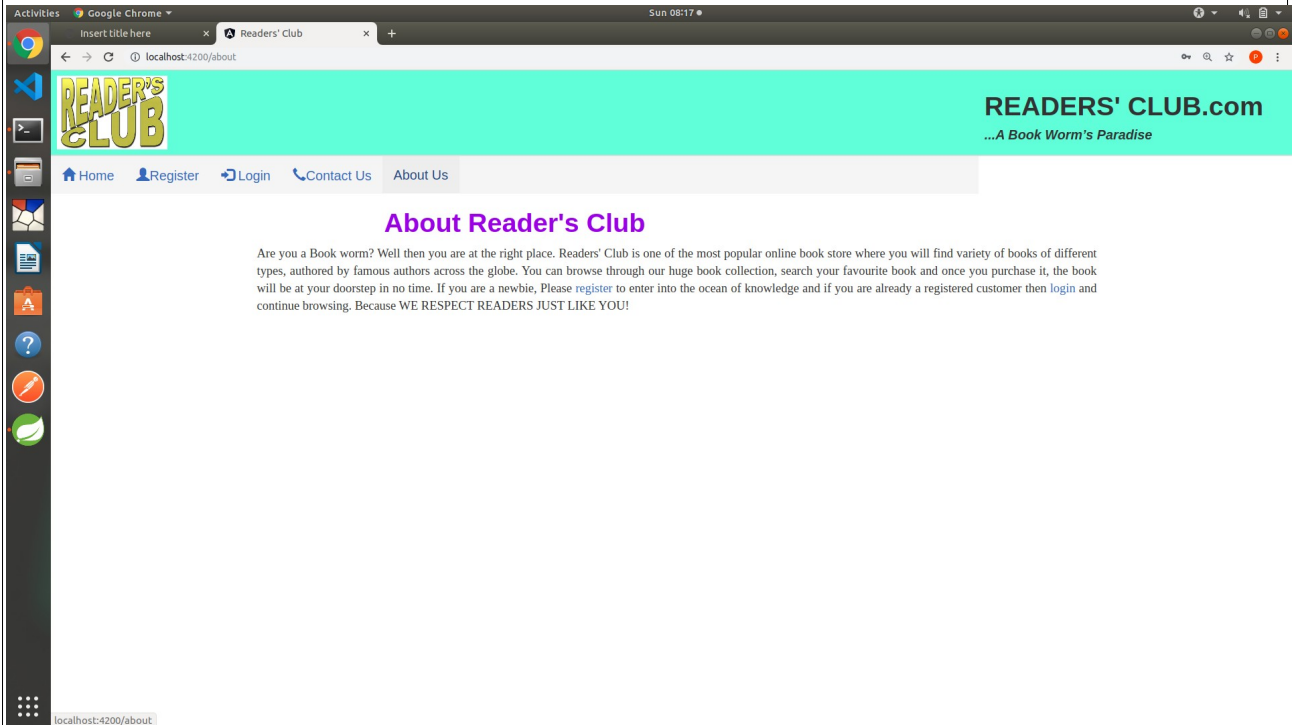
[Home](#) [Register](#) [Login](#) [Contact Us](#) [About Us](#)

Hello Book Lover, What Do You Wish To Read Today? Log in or Sign up to continue browsing

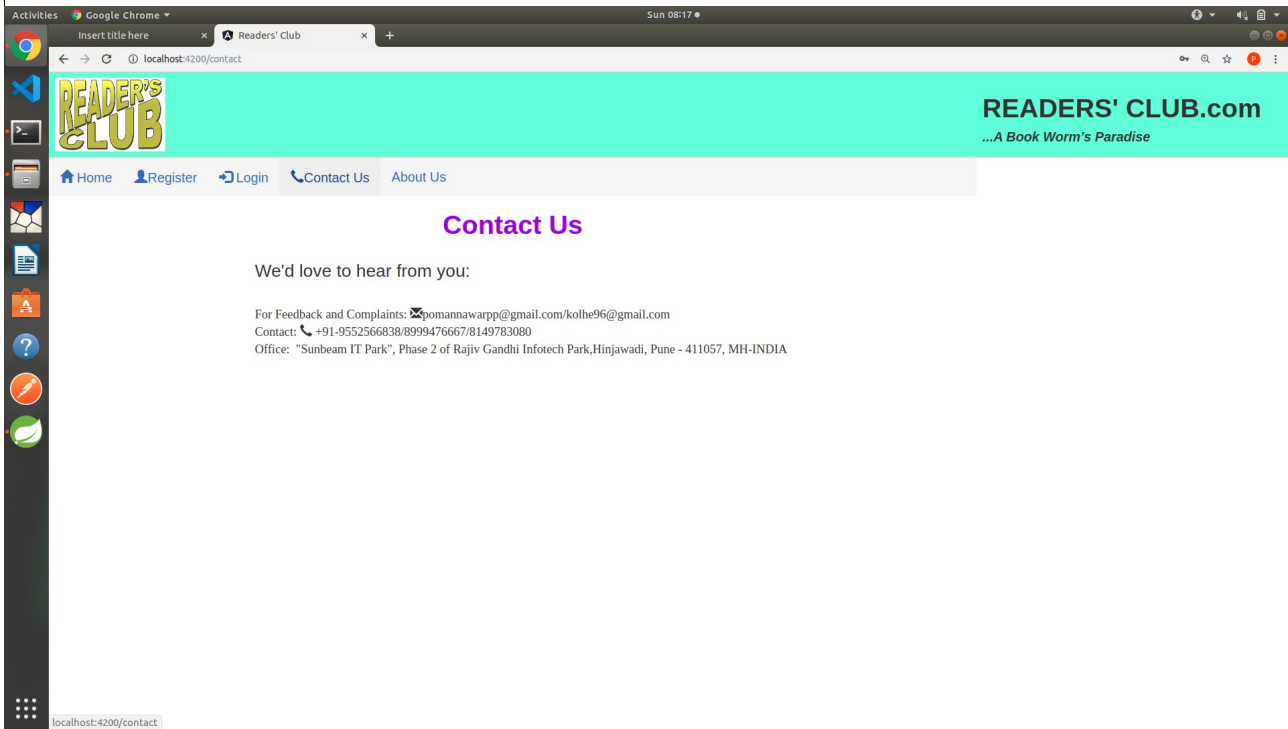
Book List

Id	Title	Author	Publication	Type	ISBN	Price	Image
1	hound of baskervilles	conan doyle	george newnes	suspense	1111	1000	
2	panipat	vishwas patil	rajhans	memoire	1112	400	
3	wings of fire	apj abdul kalam	universities	autobiography	1113	322	
4	mega living	robin sharma	rajan	motivational	1114	235	
9	abc	pqr	xyz	lmn	1117	101	
16	c++ complet	yashwant kanitkar	sanjivan	academic	1119	1275	

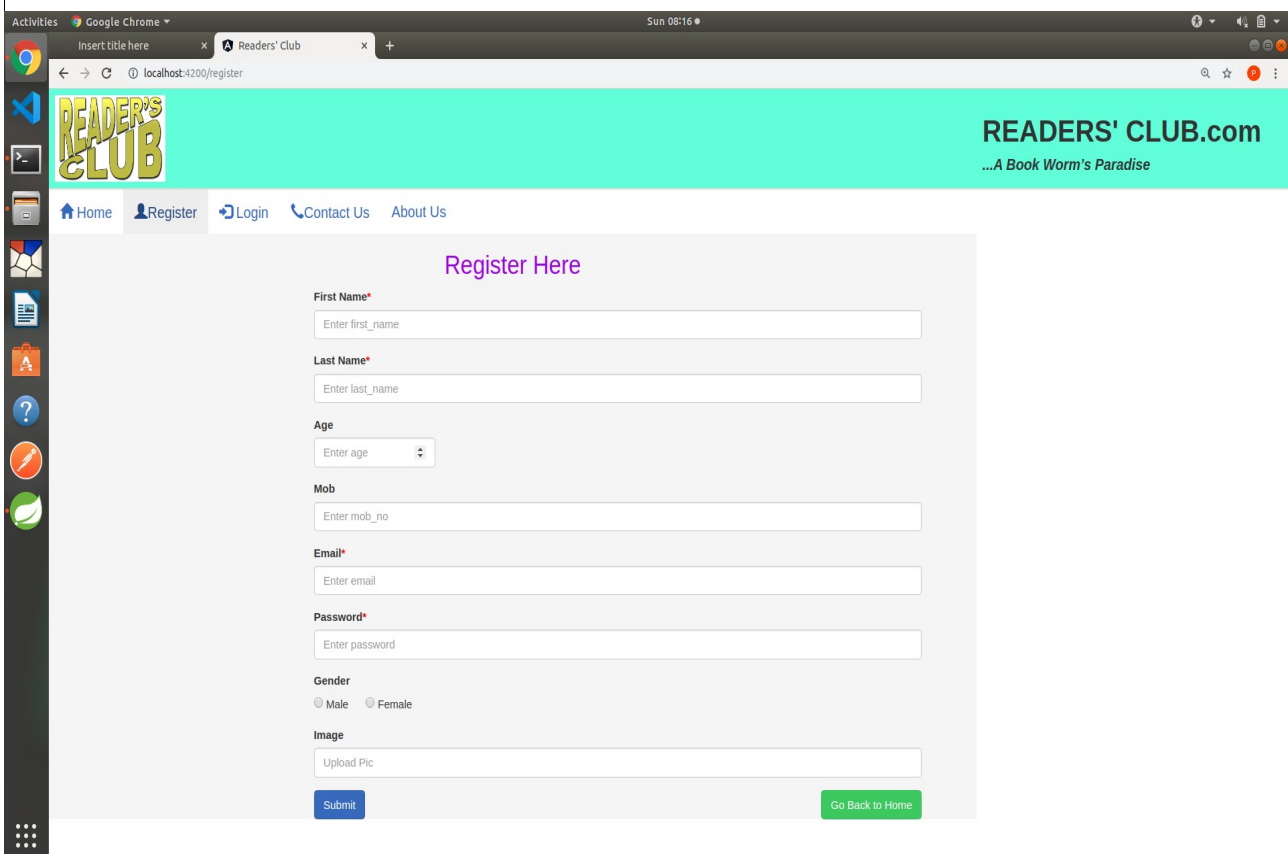
2 About Us:



3. Contact Us:



4. Registration Page:



localhost:4200 says
You have Registered Successfully. One More Step to Go...Add Your Address

Cancel OK

READERS' CLUB.com
...A Book Worm's Paradise

Home Register Login Contact Us About Us

Register Here

First Name*
saurabh

Last Name*
gadekar

Age
26

Mob
345678987

Email*
saurabh@gmail

Password*

Gender
☒ Male ☐ Female

Image
Upload Pic

Submit

Go Back to Home

5. Add Address:

localhost:4200 says
Address Added Successfully! Now Login and Enjoy Shopping

Cancel OK

READERS' CLUB.com
...A Book Worm's Paradise

Home Register Login Contact Us About Us

Add Your Shipping Address

House No
12

Street
wai road

City: Satala

State: Maharashtra

Country: Aus

PinCode:
456

Add

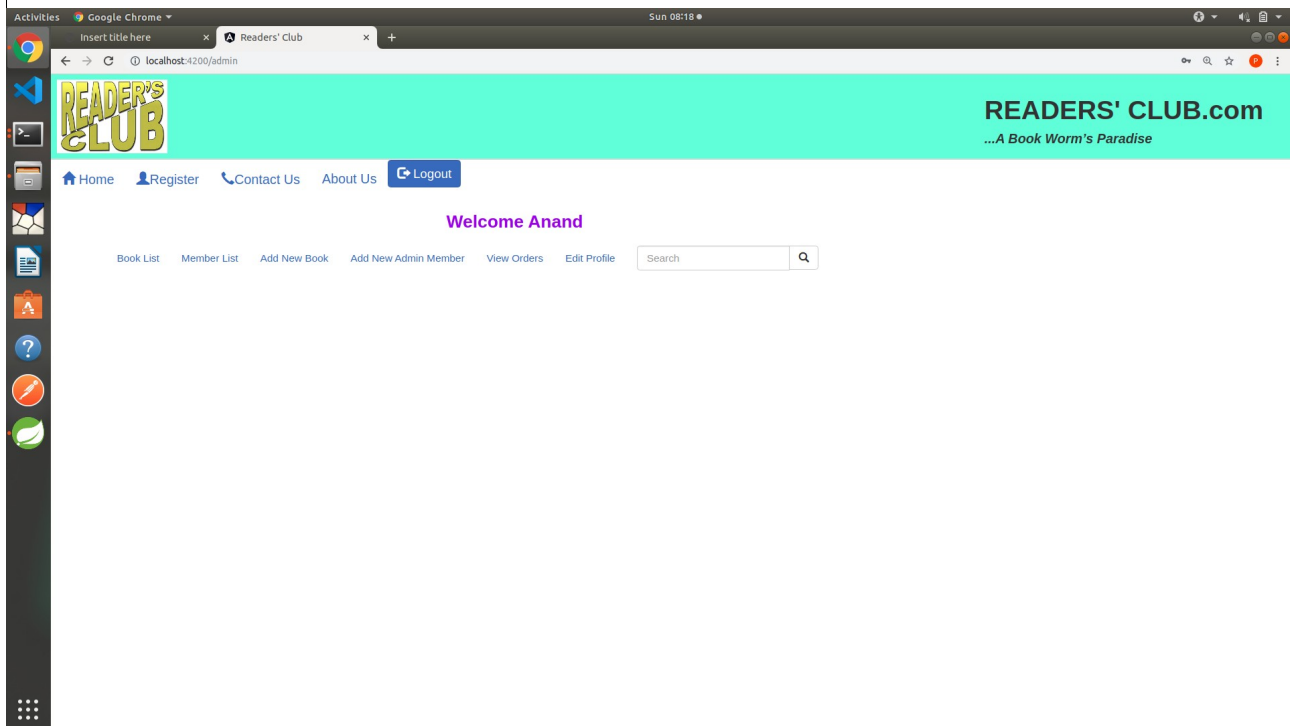
6.Admin Registration:

The screenshot shows a web browser window with the URL `localhost:4200/registerAdmin`. The page header features the "READER'S CLUB" logo on the left and "READERS' CLUB.com ...A Book Worm's Paradise" on the right. A navigation bar includes links for Home, Register, Contact Us, About Us, and a Logout button. The main content area is titled "Register Admin" and contains a form with the following fields: First Name (with a red asterisk), Last Name (with a red asterisk), Age, Mob (mobile number), Email (with a red asterisk), Password (with a red asterisk), Gender (radio buttons for Male and Female), and Image (with an "Upload Pic" button). At the bottom of the form are "Submit" and "Go Back to Home" buttons.

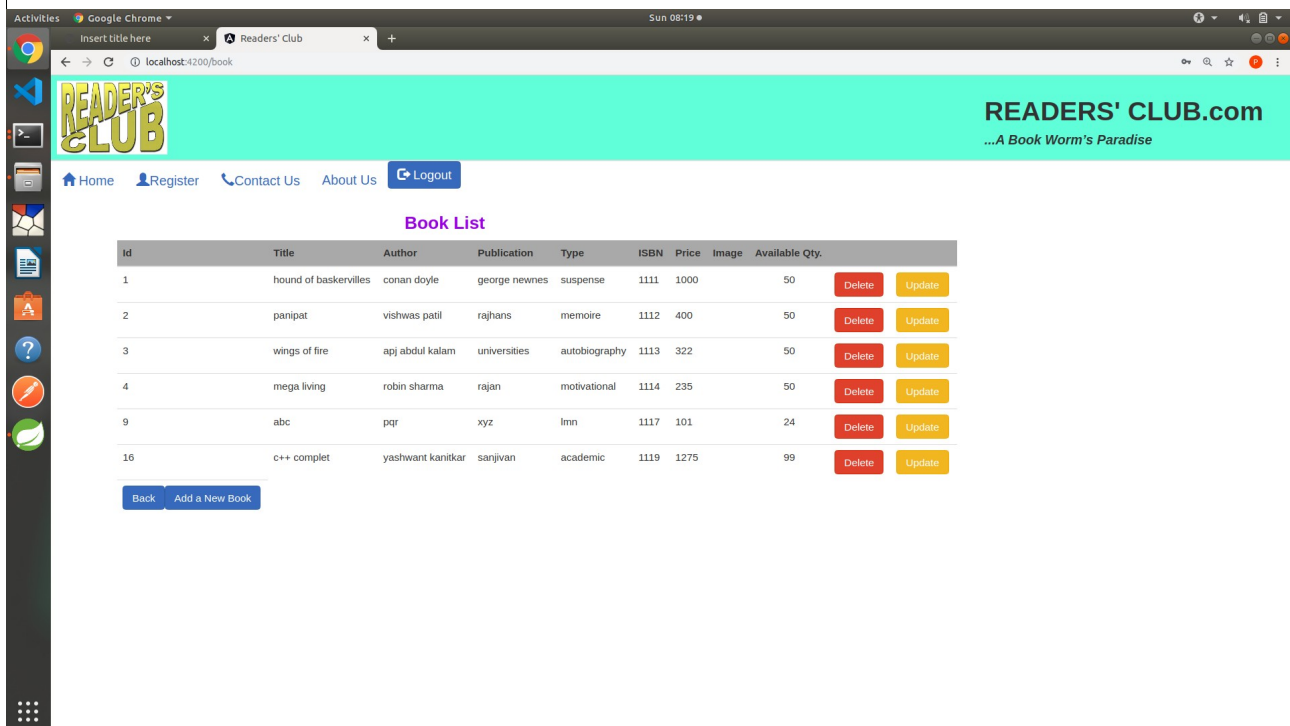
7. Login:

The screenshot shows a web browser window with the URL `localhost:4200/login`. The page header is identical to the previous screenshot. The navigation bar includes links for Home, Register, Login, Contact Us, and About Us. The main content area is titled "Log In" and features a form with "Email" and "Password" fields, each with a placeholder text "Enter Email" and "Enter Password" respectively. Below the fields are three buttons: "Log In" (green), "Cancel" (orange), and "Signup" (blue).

8. Admin Home Page:



9. Book List:



10 Add a Book:

The screenshot shows a web browser window with the URL `localhost:4200/addBook`. The page has a teal header with the 'READER'S CLUB' logo on the left and 'READERS' CLUB.com ...A Book Worm's Paradise' on the right. A navigation bar below the header contains links for Home, Register, Contact Us, About Us, and a Logout button. The main content area is titled 'Add a New Book' in purple. It contains a form with the following fields: Title (placeholder: 'enter name of the book'), Author (placeholder: 'enter Author name'), Publication (placeholder: 'enter publication name'), Type (placeholder: 'enter type name'), ISBN (placeholder: 'enter ISBN'), Count (placeholder: 'enter count name'), Price (placeholder: 'enter price'), and Image (placeholder: 'enter image'). At the bottom of the form are two buttons: 'Add book' (green) and 'Cancel' (red).

11. Edit Book Details:

The screenshot shows a web browser window with the URL `localhost:4200/editBook/1`. The page layout is identical to the previous one, with the same teal header, navigation bar, and 'Edit Book Details' title. The form contains the following fields: Id (value: '1'), Title (value: 'hound of baskervilles'), Author (value: 'conan doyle'), Publication (value: 'george newnes'), Type (value: 'suspense'), ISBN (value: '1111'), Count (value: '50'), Price (value: '1000'), and Image (placeholder: 'enter image'). At the bottom of the form are two buttons: 'Submit' (green) and 'Cancel' (red).

12. User list:

READERS' CLUB.com
...A Book Worm's Paradise

Home Register Contact Us About Us Logout

User List

Id	First name	Last name	Email	Role	Mob No	Age	Image
1	prajya	patil	prajyot@gmail	ADMIN	9552566838	24	
5	preeti	prasanna	preeti@gmail	USER	9999988888	26	
7	sandeep	kalunge	sandeep@gmail	ADMIN	9090909090	45	
8	Anand	Katkar	anand@gmail	ADMIN	9876556789	23	
9	suraj	lonthe	suraj@gmail	ADMIN	1234554321	24	
13	puja	pomannawar	puja@gmail	ADMIN	1234567890	29	
14	ashwini	pomannawar	ashwini@gmail	USER	9876543210	21	
16	aditya	kanase	aditya@gmail	USER	9876567865	23	
18	sagar	patil	sagar@gmail	USER	1234567865	24	
19	sdifg	hgfd	hgfd	ADMIN	65432	34	
20	saurabh	gadekar	saurabh@gmail	USER	345678987	26	

Back Add New Admin

13. Edit Profile:

READERS' CLUB.com
...A Book Worm's Paradise

Home Register Contact Us About Us Logout

Edit Your Profile

User Id
8

First Name*
Anand

Last Name*
Katkar

Age
23

Mob
9876556789

Email*
anand@gmail

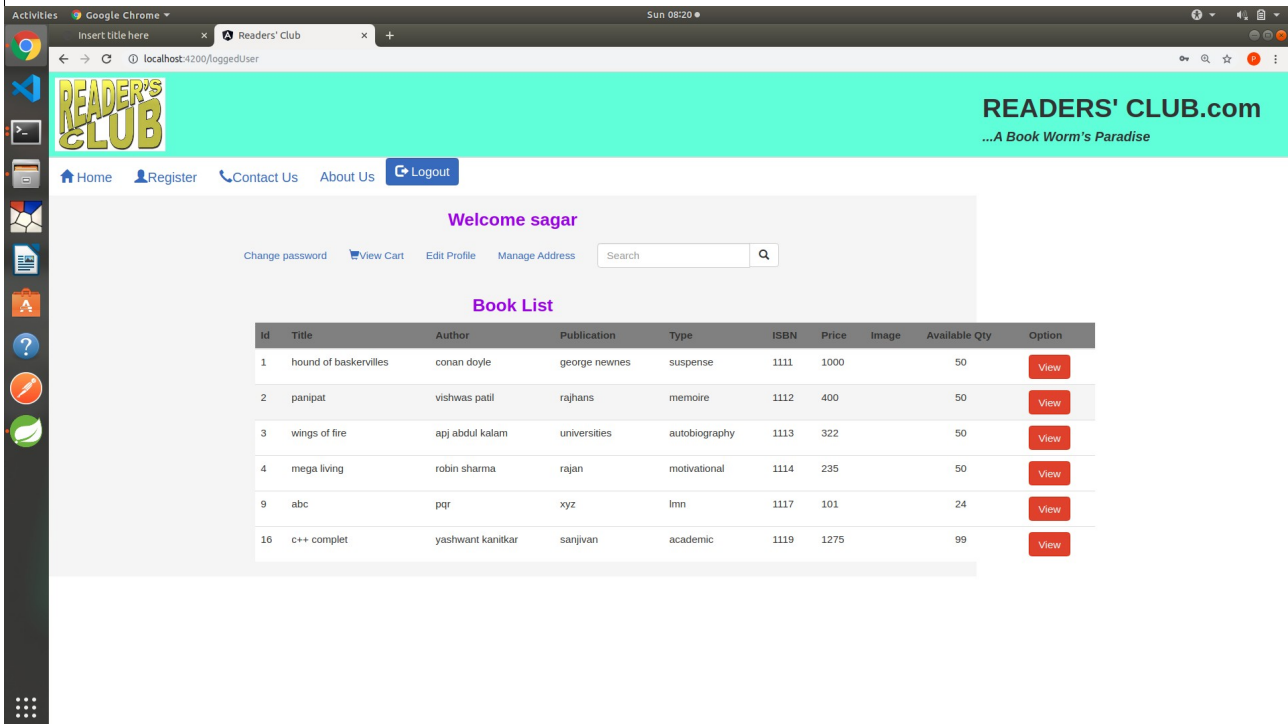
Password*

Gender
☒ Male
 ☐ Female

Image
 Upload Pic

Submit Cancel

14. User Home Page:



The screenshot shows the 'Readers' Club' user home page in a web browser. The page has a teal header with the site logo and name. Below the header is a navigation bar with links for Home, Register, Contact Us, About Us, and a Logout button. The main content area is white and features a 'Welcome sagar' message. Below the welcome message are links for 'Change password', 'View Cart', 'Edit Profile', and 'Manage Address', along with a search bar. A 'Book List' section follows, displaying a table of books with columns for Id, Title, Author, Publication, Type, ISBN, Price, Image, Available Qty, and Option. Each row includes a 'View' button. The browser's address bar shows 'localhost:4200/loggedUser'.

Readers' Club.com
...A Book Worm's Paradise

Home Register Contact Us About Us Logout

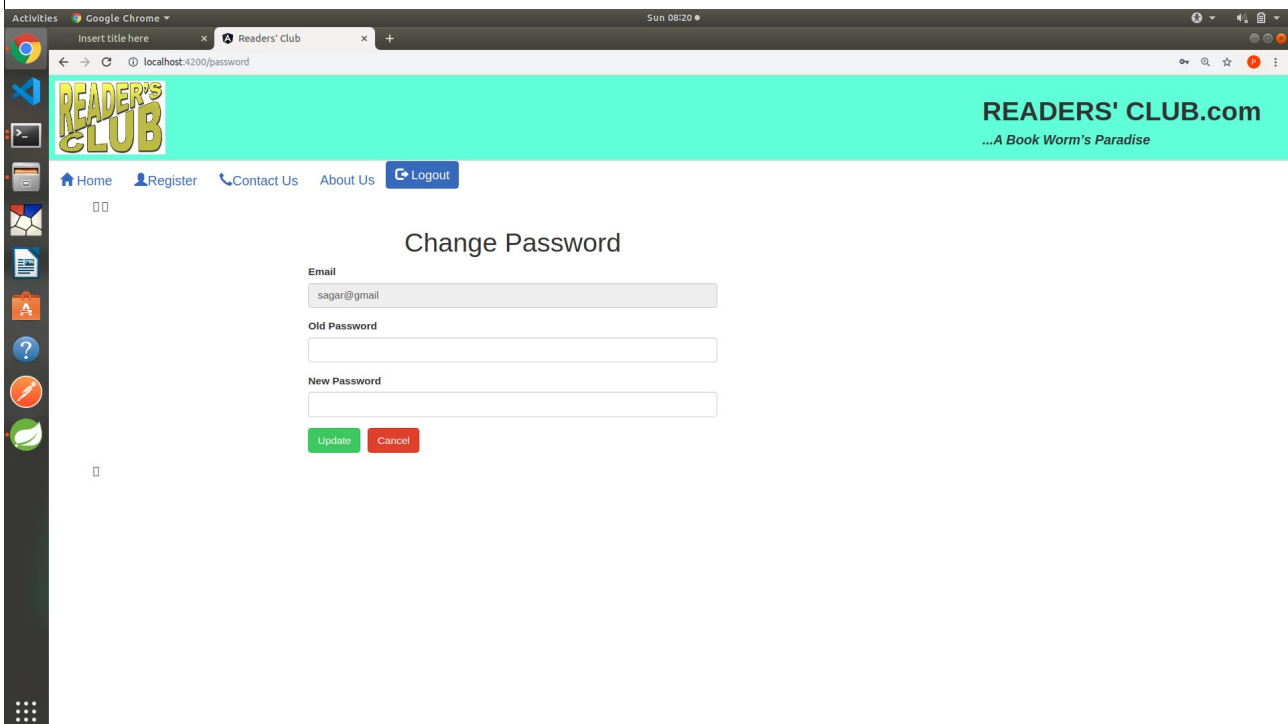
Welcome sagar

Change password View Cart Edit Profile Manage Address Search

Book List

Id	Title	Author	Publication	Type	ISBN	Price	Image	Available Qty	Option
1	hound of baskervilles	conan doyle	george newnes	suspense	1111	1000		50	View
2	panipat	vishwas patil	rajhans	memoire	1112	400		50	View
3	wings of fire	api abdul kalam	universities	autobiography	1113	322		50	View
4	mega living	robin sharma	rajan	motivational	1114	235		50	View
9	abc	pqr	xyz	lmn	1117	101		24	View
16	c++ complet	yashwant kanitkar	sanjivan	academic	1119	1275		99	View

15. Change Password:



The screenshot shows the 'Readers' Club' change password page. The page layout is consistent with the previous one, but the main content area is white and features a 'Change Password' form. The form includes fields for Email (sagar@gmail), Old Password, and New Password, followed by 'Update' and 'Cancel' buttons. The browser's address bar shows 'localhost:4200/password'.

Readers' Club.com
...A Book Worm's Paradise

Home Register Contact Us About Us Logout

Change Password

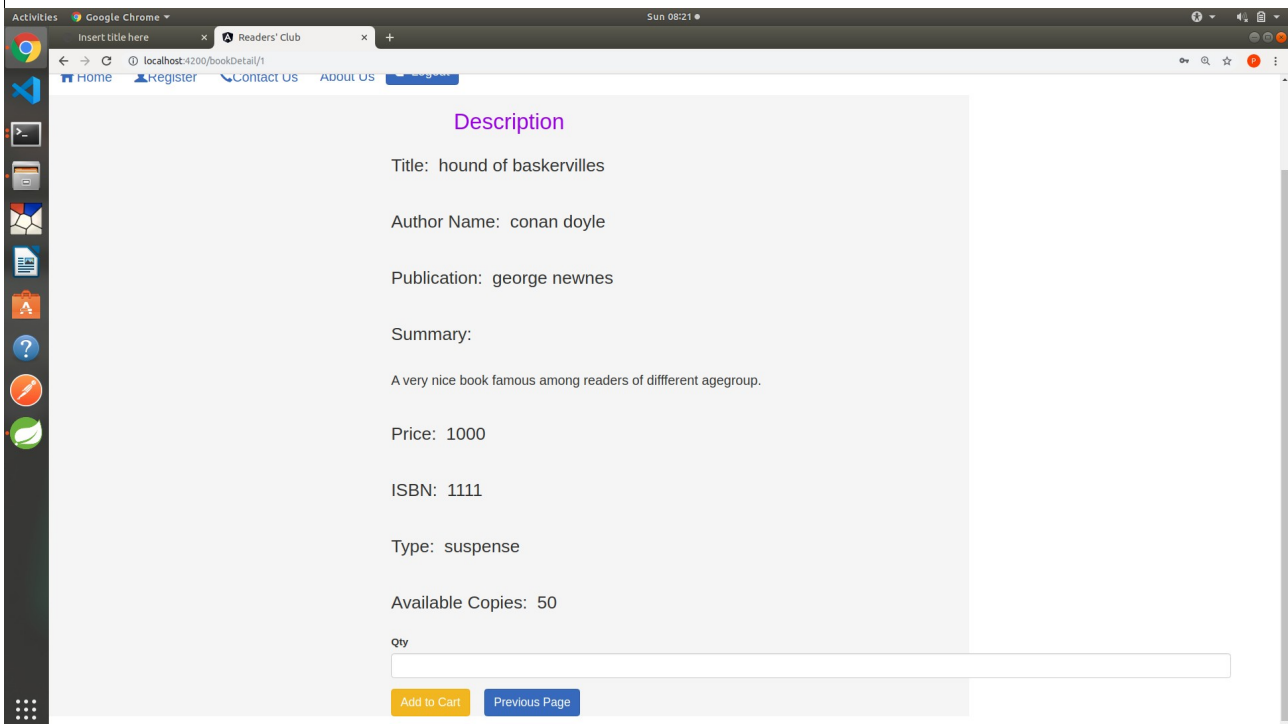
Email
sagar@gmail

Old Password

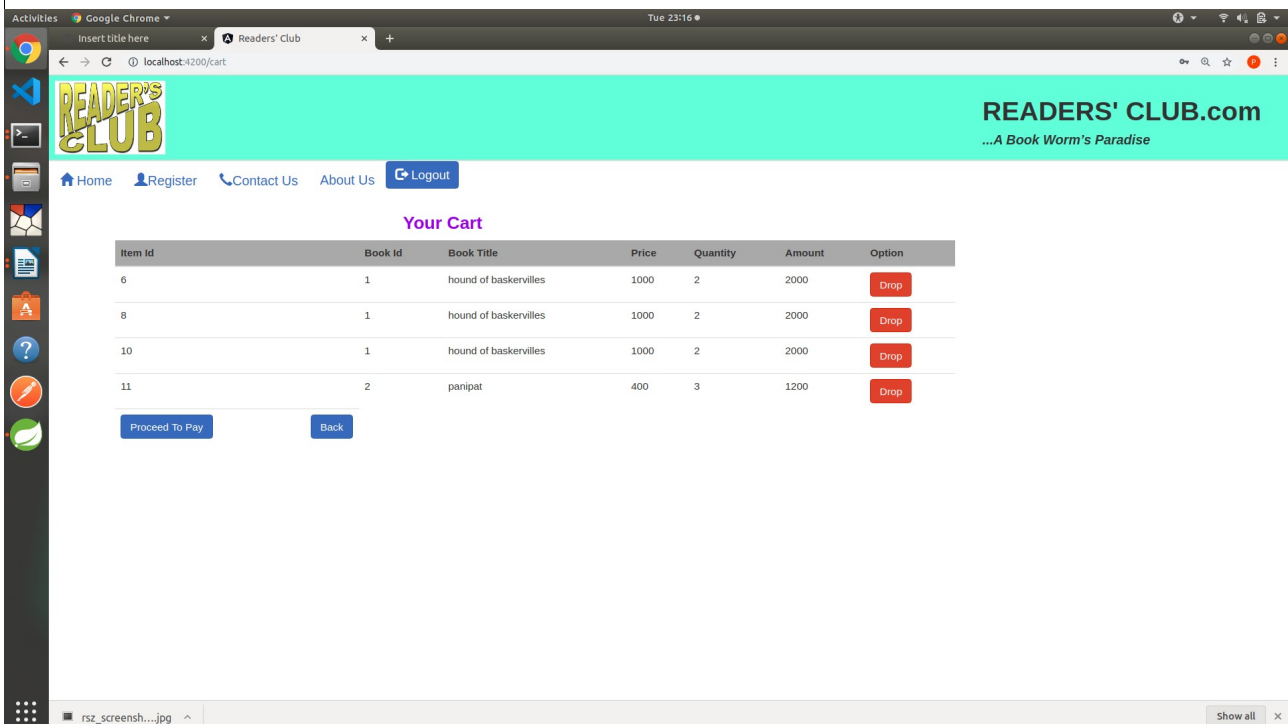
New Password

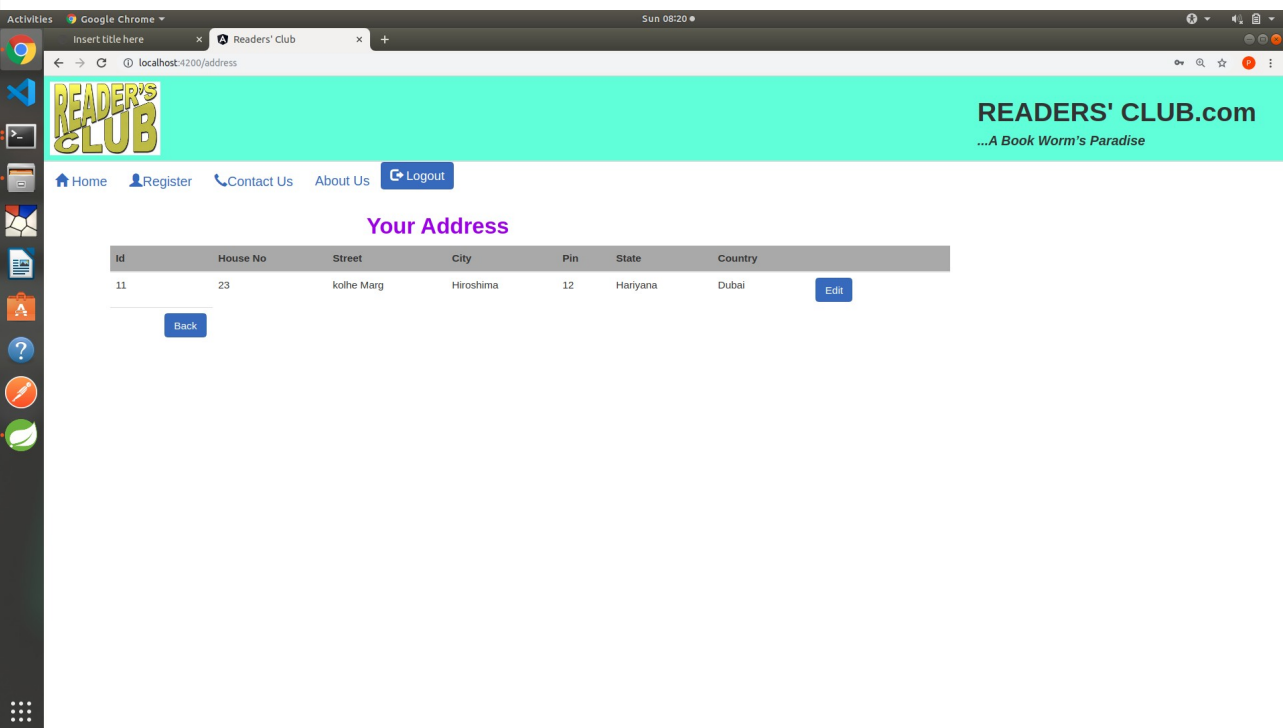
Update Cancel

16. Book details:

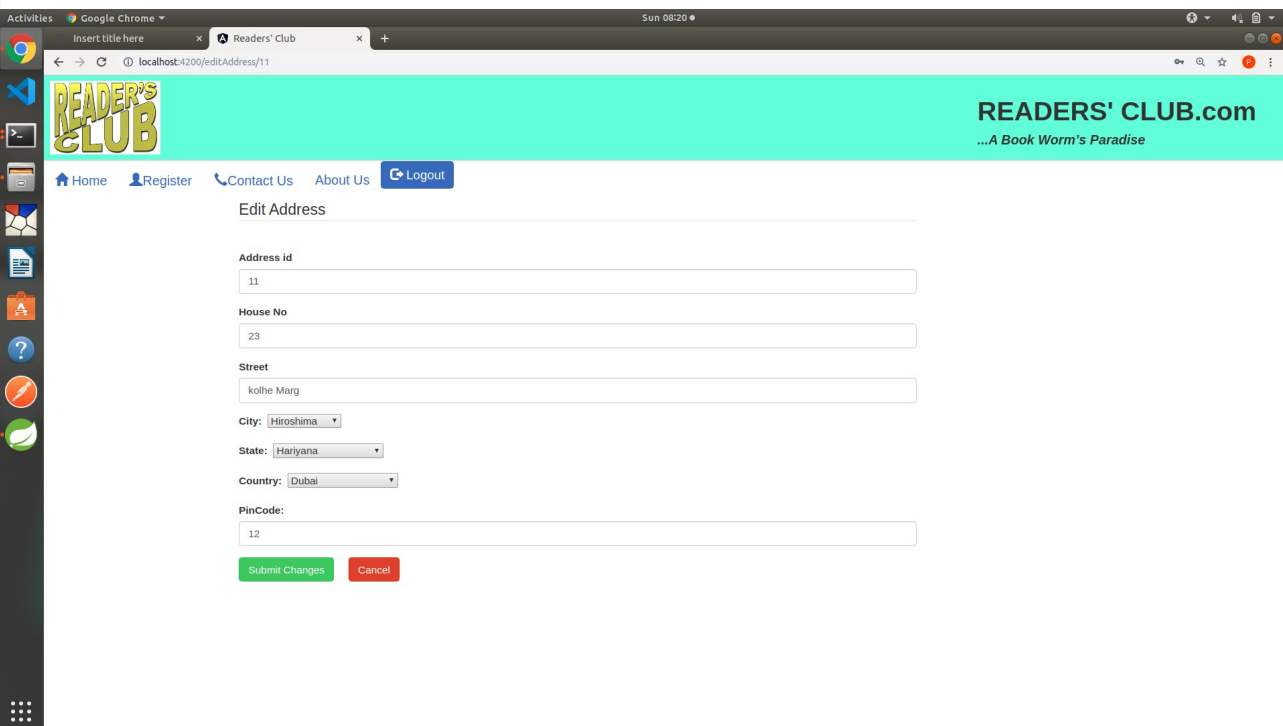


17. View Cart:





19. Edit Address:



20. User Registration:

Activities Google Chrome Sun 08:16

Insert title here x Readers' Club x

localhost:4200/register

READER'S CLUB

localhost:4200 says
You have Registered Successfully. One More Step to Go...Add Your Address
Cancel OK

READERS' CLUB.com
...A Book Worm's Paradise

Home Register Login Contact Us About Us

Register Here

First Name*
saurabh

Last Name*
gadekar

Age
26

Mob
345678987

Email*
saurabh@gmail

Password*

Gender
☒ Male ☐ Female

Image
Upload Pic

Submit Go Back to Home

21. Add Address:

Activities Google Chrome Sun 08:17

Insert title here x Readers' Club x

localhost:4200/addAddress

READER'S CLUB

localhost:4200 says
Address Added Successfully! Now Login and Enjoy Shopping
Cancel OK

READERS' CLUB.com
...A Book Worm's Paradise

Home Register Login Contact Us About Us

Add Your Shipping Address

House No
12

Street
wai road

City: [Satara]

State: [Maharashtra]

Country: [Aus]

PinCode:
456

Add

Class Diagram:



C	AddressCor
dao:AddressDao	
dao1:UserDao	
init()	
listAddress()	
getAddressDetails(@PathVariable in	
addAddress(@RequestBody Address	
updateAddressData(@RequestBody	

7.REFERENCES:

- <http://www.google.com>
- <http://www.BookWagon.com>
- <http://www.amazon.com/>
- <http://www.geeksforgeeks.com>
- <http://www.w3.org>
- <http://www.wikipedia.org>