


## ASSIGNMENT 2 FRONT SHEET

<b>Qualification</b>	<b>BTEC Level 5 HND Diploma in Business</b>		
<b>Unit number and title</b>	<b>Unit 30: Application Development</b>		
<b>Submission date</b>	2/11/2002	<b>Date Received 1st submission</b>	
<b>Re-submission Date</b>		<b>Date Received 2nd submission</b>	
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<b>Student declaration</b> I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice.			
		<b>Student's signature</b>	

### Grading grid

P4	P5	P6	M3	M4	M5	D2	D3

☐ **Summative Feedback:**☐ **Resubmission Feedback:****Grade:****Assessor Signature:****Date:****Internal Verifier's Comments:****Signature & Date:**

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# INTRODUCTION

In this part 2 of the project, the author will introduce and explain the system and collect data from survey. Our “The Cool Library” is an internet library, where we sale book for profit. Our team have 3 members, and we work together to develop this website.

## I. PEER REVIEW AND FEEDBACK ANALYSIS

### A)List of questions

#### 1. Do you like our The Cool Library

Do you like our The Cool Library? \*

	1	2	3	4	5	
bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	good

#### 2. Your thought about our system

Your thought about our system \*

	Bad	Ok	Good
User interface	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic features	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Advanced features	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Do you like the interface?

Do you like user interface? \*

	1	2	3	4	5	
Not that much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

4. Do you like our Store Owner page?

Do you like our Store Owner page \*

	1	2	3	4	5	
Not that much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

5. Do you like our Admin page?

Do you like our Admin page \*

	1	2	3	4	5	
Not that much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

6. Which path should we improve?

Which path should we improve? \*

- ☐ User interface
- ☐ Basic features
- ☐ Advanced features
- ☐ Store Owner page
- ☐ Admin page

7. In the registration section, after creating an account, do you think users need to confirm account by email?

In the registration section, after creating an account, do you think users need to confirm account by email? \*

- ☐ Yes
- ☐ No
- ☐ Maybe
- ☐ Other: \_\_\_\_\_

8. Do you like to have a user cart?

Do you like to have a user cart \*

- ☐ Yes
- ☐ No
- ☐ Maybe
- ☐ Other: \_\_\_\_\_

9. What else would you like us to improve?

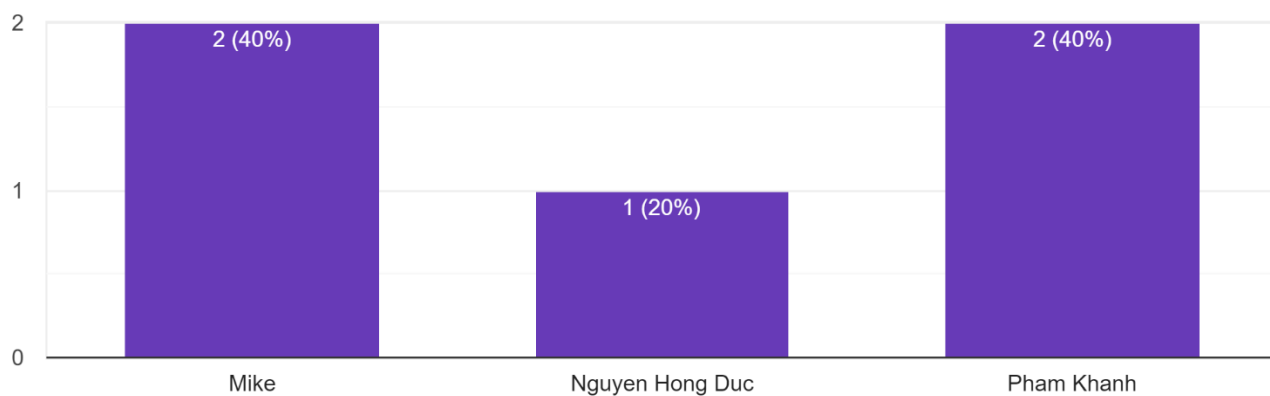
What else would you like us to improve? \*

Your answer

## B) Review feedbacks

What is your name?

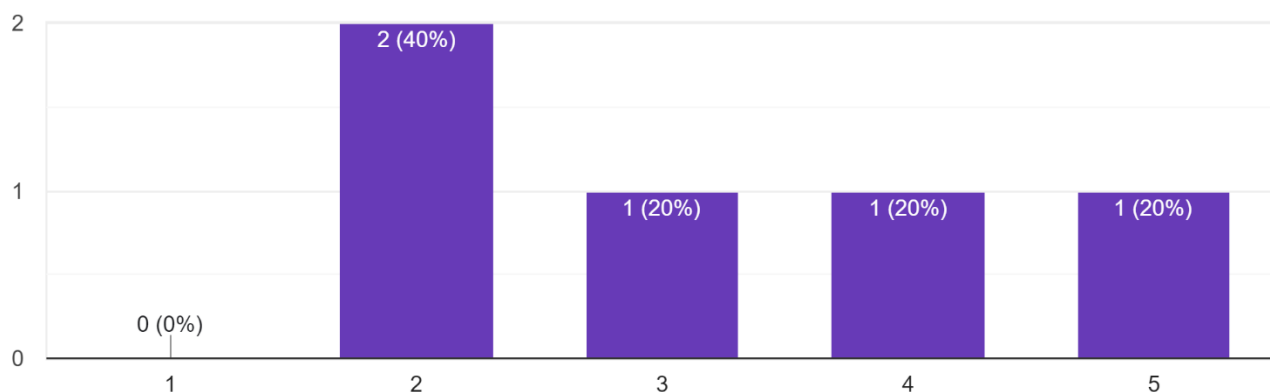
5 responses



According to the survey this is a section to know who join the survey.

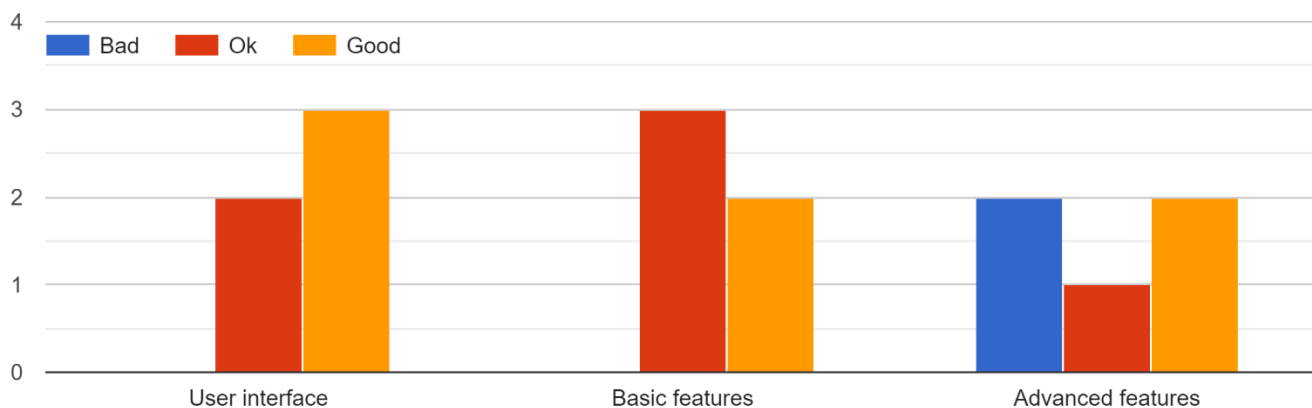
### Do you like our The Cool Library?

5 responses



The result show 60% people like our project in the range of 3 – 5, other 40% are in range 2. So it is mean that, our system have satisfied almost everyone.

### Your thought about our system

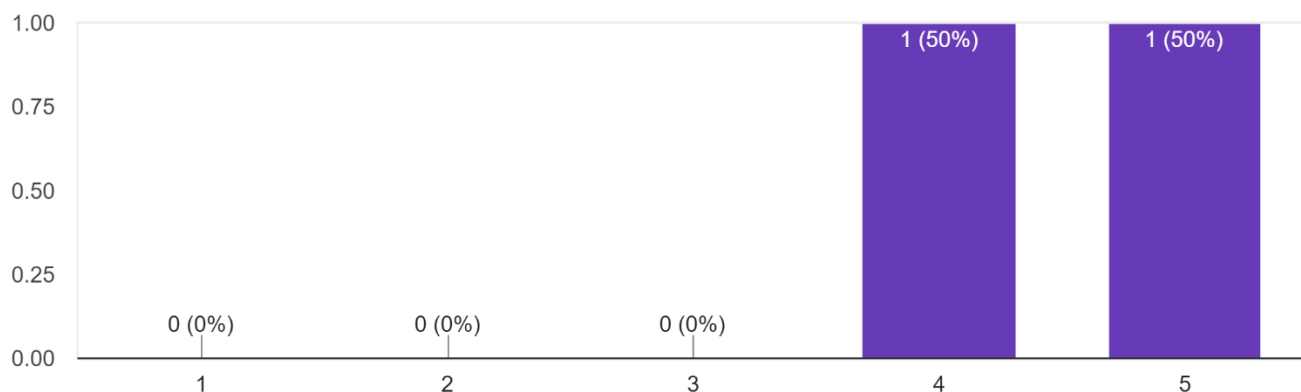


In this question, the answers tell us that the system only have satisfied almost everyone. The result of user interface are 60% good and 40% ok. The basic feature have 40% and 60% ok. Lastly, the advanced have 40% both good and bad, also 20% ok.



### Do you like user interface?

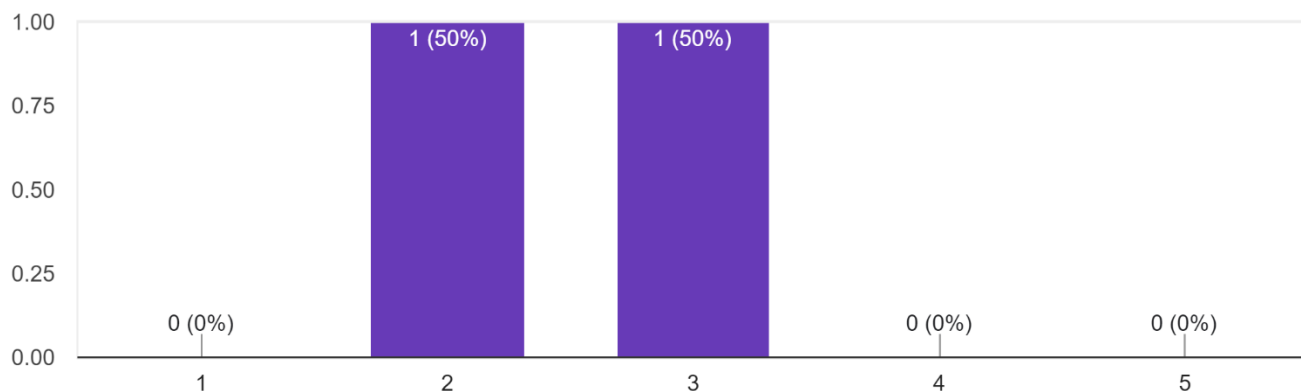
2 responses



We proudly that our system have good user interface with 50% on both scale 4 and 5. That mean our page is pretty and good-looking.

### Do you like our Store Owner page

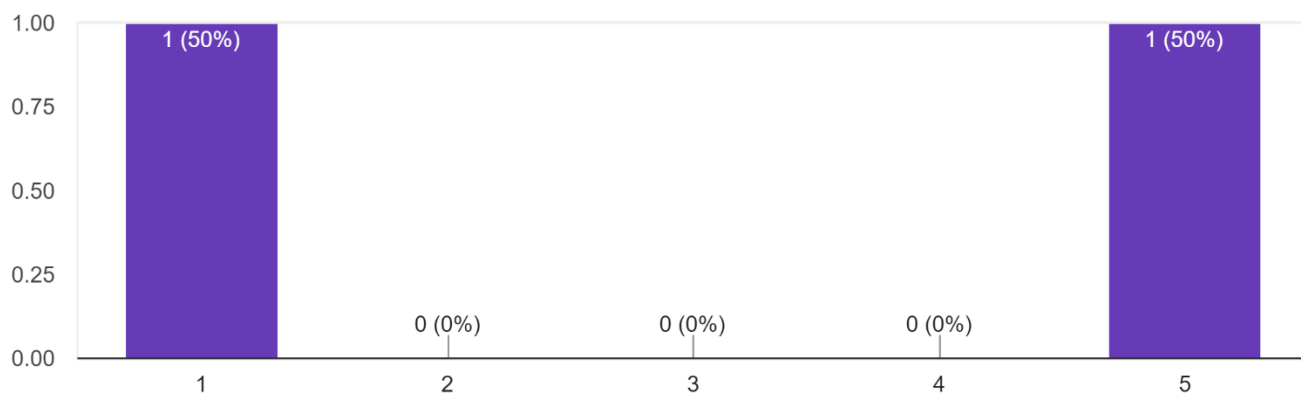
2 responses



On the other side, Store Owner page have 50% on scale 2 and 3. We should improve more in this Store Owner page.

### Do you like our Admin page

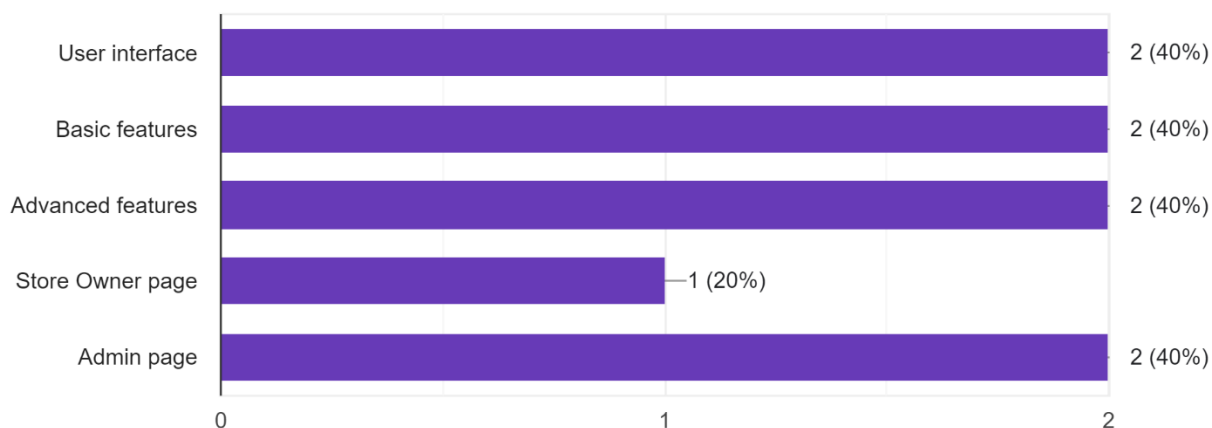
2 responses



The Admin page is angrily 50% of save 1 and 5. This is strange so we will keep the design for now.

### Which path should we improve?

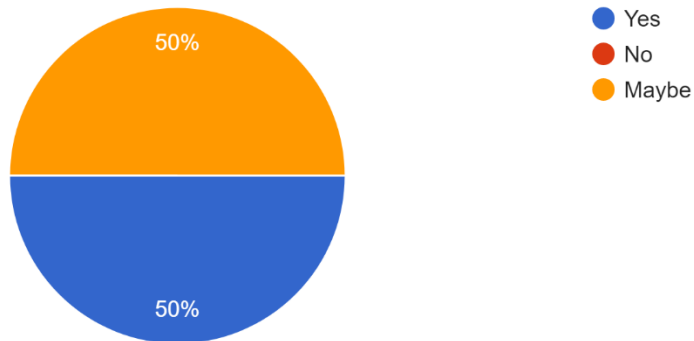
5 responses



We should improve all the page and feature base on the result of the survey. The Store Owner page maybe can stay at that way for a while.

In the registration section, after creating an account, do you think users need to confirm account by email?

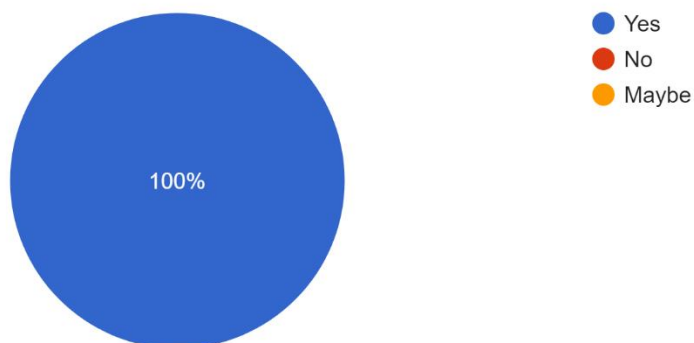
2 responses



In this question about option step of register, 50% want to add it and 50% confuse and not really want it. We still agreed that maybe add this function is a good idea.

Do you like to have a user cart

2 responses



We aware that 100% user want to have a good user cart. Every system need a cart feature, that is a good point. We plan on update that feature really soon.

What else would you like us to improve?

5 responses

This project need more function for the user

I want add to cart feature

Improve more advanced features and friendly user interface

Make a message notification function when sale

This project should have more function such as search, sort, and so on

Some ideas from the survey result are good like:

- Add to cart feature.
- Message notification.

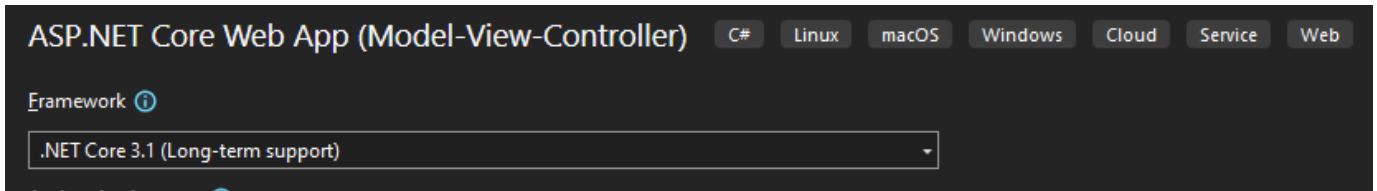
## C) Evaluate

Everyone else like our website, and they thought it can be so much more. Almost everyone like to have a cart function. And also, user need more function to do with like a auto message when sale or advanced search & sort.

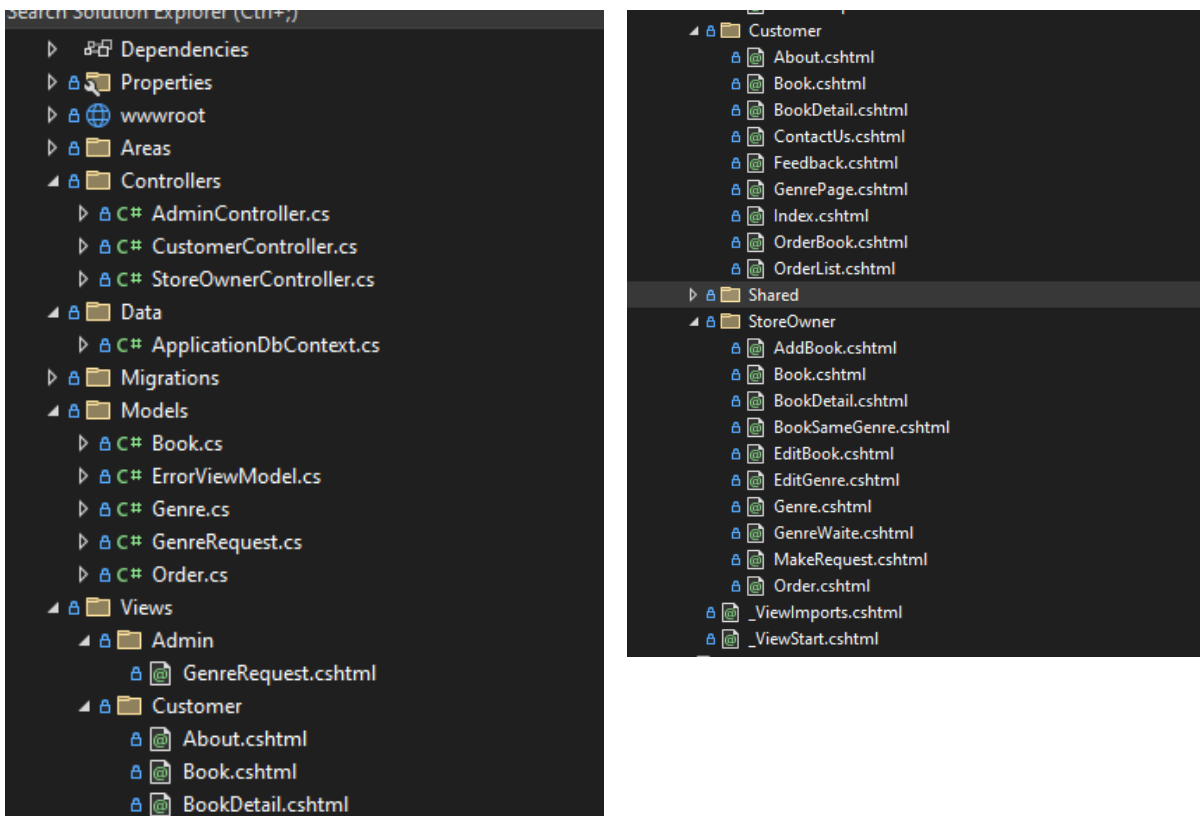
In my opinion, our system done great and through the survey, we learned a lot about real user experiences. We need to improve like a lot but also can be proud of this project in the same time.

## II. APPLICATION DEVELOPMENT

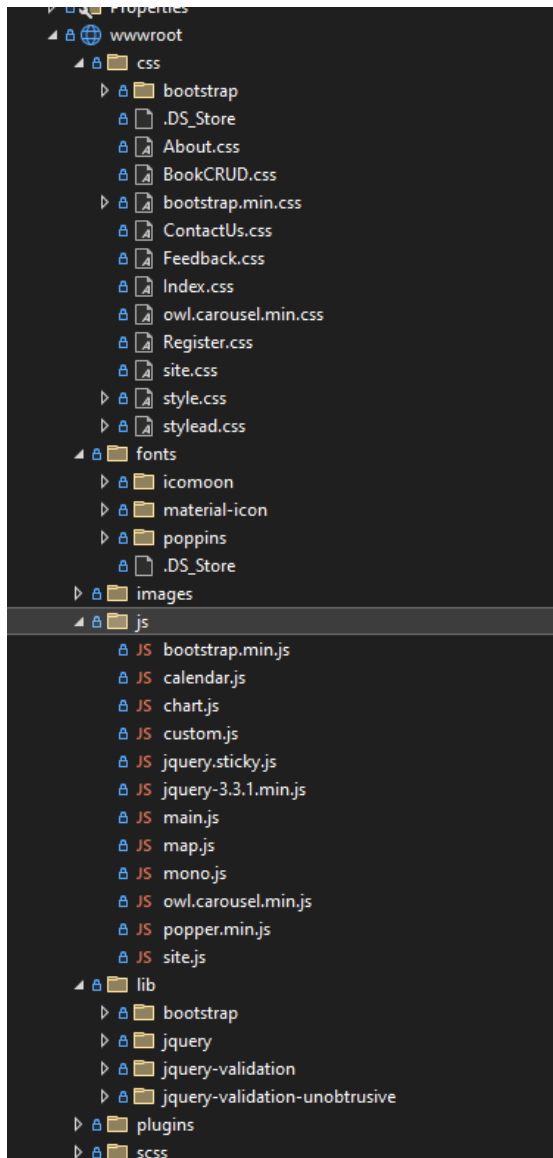
For this project, we using Visual Studio 2022 IDE for coding. And for framework, we use ASP.NET Core 3.1 to develop the web app. This is an open-source framework for developing web application and can be run on Windows, Mac, or Linux. With the help of SQL Server 2019 by Windows, we start develop the app.



### 1) Folder structure of the application



The folder have a easy understand structure, each controller have a view folder.



Everything else like bootstrap, front, and JavaScript are in 'wwwroot' folder.

## 2) Source code samples of the application

### Example code: **Order feature**

This feature allow customer to order book with quantity and add it to a order list. In Store Owner page, he or she can see all of the order from difference account. If I am a customer I can only see the order list of my self account.

+) Model:

Order model

```
5  public class Order
6  {
7      1 reference
      public int Id { get; set; }
8      2 references
      public DateTime OrderDate { get; set; }
9      2 references
      public int Quantity { get; set; }
10     3 references
      public double Price { get; set; }
11     2 references
      public double Bill { get; set; }
12     3 references
      public string Email { get; set; }
13
14     3 references
      public int BookId { get; set; }
15     5 references
      public Book Book { get; set; }
16
17 }
```

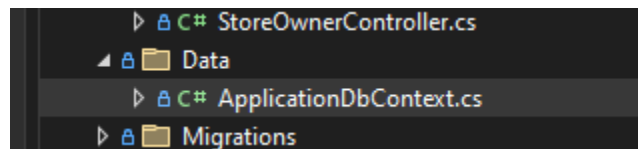
This is model of order table.

```

7 namespace The_cool_Library.Data
8 {
9     16 references
10     public class ApplicationDbContext : IdentityDbContext
11     {
12         0 references
13         public ApplicationDbContext(DbContextOptions<ApplicationDbContext> options)
14             : base(options)
15         {
16             1 reference
17             public DbSet<IdentityUser> IUs { get; set; }
18
19             //public DbSet<Admin> Admins { get; set; }
20             //public DbSet<Customer> Customers { get; set; }
21             //public DbSet<StoreOwner> StoreOwners { get; set; }
22             20 references
23             public DbSet<Book> Books { get; set; }
24             20 references
25             public DbSet<Genre> Genres { get; set; }
26             10 references
27             public DbSet<GenreRequest> GenreRequests { get; set; }
28             4 references
29             public DbSet<Order> Orders { get; set; }
30
31             0 references
32             protected override void OnModelCreating(ModelBuilder builder)
33             {

```

By calling the model in ApplicationDbContext we can create a table in the database.



```

> C# StoreOwnerController.cs
  > Data
    > C# ApplicationDbContext.cs
    > Migrations

```



+) Customer's Controller:

Action OrderBook

```
118 [Authorize(Roles = "Customer")]
119 [HttpPost]
120 public IActionResult OrderBook(int id, double price, int quantity, Book book)
121 {
122     var order = new Order();
123     order.BookId = id;
124     order.OrderDate = DateTime.Now.Date;
125     order.Quantity = quantity;
126     order.Price = price;
127     order.Bill = order.Price * quantity;
128     order.Email = User.Identity.Name;
129
130     book = context.Books.Where(b => b.Id == id).FirstOrDefault();
131     book.Book_quantity -= quantity;
132     //book = context.Books.Find(id);
133     context.Books.Update(book);
134
135     context.Orders.Add(order);
136     context.SaveChanges();
137     return RedirectToAction("OrderList");
138 }
```

This action allow customer to order book that he or she want then redirect to order list page.

From line 122 – 128, we create a new order into table order.

With the id we get from the submit form, also with price and quantity of the target book, we can make a order to add in the order table.

Line 130 – 133, this is the code to update the quantity of book in the book table.

Line 135 – 137, this is the code to add order to table then save it. Lastly redirect to the user order list.

## Action OrderList

```
142 [Authorize(Roles = "Customer")]  
    0 references  
143 public IActionResult OrderList()  
144 {  
145  
146     dynamic orders = new ExpandoObject();  
147     orders.Genres = context.Genres.ToList();  
148     orders.Books = context.Books.ToList();  
149     orders.Orders = context.Orders.Include(b => b.Book)  
150                                     .Where(b => b.BookId == b.Book.Id)  
151                                     .ToList();  
152     orders.Orders = context.Orders.Where(p => p.Email.Contains(User.Identity.Name)).ToList();  
153  
154     return View(orders);  
155 }
```

We use the dynamic model to generate a genre list on the nav go with the layout. This is a sub function.

But mainly, line 149 – 152, these are the codes to help create the current user account order list.

Line 149 – 151, we use this to find the name of the book that current customer have order.

Line 152, this line is to distinction the order list of different users. To be most clear, I want to see only my account list of order, not with other orders of other account.

+) Customer's View:

View BookDetail

```

185 <!-- Modal Order -->
186 <div class="modal fade" id="ModalforOrd" tabindex="-1" role="dialog" aria-labelledby="ModalLabel" aria-hidden="true">
187   <div class="modal-dialog" role="document">
188     <div class="modal-content">
189       <div class="modal-header">
190         <h5 class="modal-title" id="exampleModalLabel">Order</h5>
191         <button type="button" class="close" data-dismiss="modal" aria-label="Close">
192           <span aria-hidden="true">&times;</span>
193         </button>
194       </div>
195       <div class="modal-body">
196         <div class="modal-body">
197           <form method="post" asp-controller="Customer" asp-action="OrderBook" asp-route-id="@Model.Books.Id">
198             <input type="hidden" name="cus" value="@Model.IUs.Id">*@
199             <input type="hidden" name="book" value="@Model.Books.Id">*@
200             <h6>Order Quantity: </h6>
201             <input type="number" name="price" value="@Model.Books.Book_price" />
202             <input type="number" name="quantity" min="1" max="@Model.Books.Book_quantity"><br>
203             <div>
204               <span class="product_info"> Title: @Model.Books.Book_name<span><br>
205                 <span class="product_info">Publisher: @Model.Books.Book_publisher<span><br>
206                 <span class="product_info">Publisher Date: @Model.Books.Book_date.ToShortDateString()<span><br>
207                 <span class="product_info">Quantity: @Model.Books.Book_quantity<span><br>
208                 <span class="product_info">Author: @Model.Books.Book_author<span> </div>
209             </div>
210           </div>
211           <div class="modal-footer">
212             <button type="button" class="btn btn-secondary" data-dismiss="modal">Close</button>
213             <button type="submit" class="btn btn-danger">Order</button>
214           </div>
215         </form>
216       </div>
217     </div>
218   </div>
219   <div class="modal-body">
220     <h6>Login First</h6>
221   </div>
222   <div class="modal-footer">
223     <button type="button" class="btn btn-secondary" data-dismiss="modal">Close</button>
224   </div>
225 </div>
226 </div>
227 </div>
228 </div>

```

We use a modal to appear when customer want to order.

The minimum quantity is 1 and the maximum is depend on the quantity of the target book.

This function is only works if the customer login with an account, if not line 128 – 224 will remind them.

## View OrderList

```
@if (User.Identity.IsAuthenticated && User.IsInRole("Customer"))
{
    @*@if (Model.Orders.Email == User.Identity.Name && Model.Orders.Count == 0)*@
    @if (Model.Orders.Count == 0)
    {
        <h2 class="alert alert-danger">NO order</h2>
    }
    else
    {
        <div class="row align-center">
            <div>
                
            </div>
            <div class="col-2">
                <h4 style="color: brown; height: 18px;"><strong>Your Order</strong></h4>
            </div>
        </div>
        <hr />
        <table class="table" style="background-color: ivory; border-radius: 30px;">
            <thead class="thead-light">
                <tr>
                    <th>ID</th>
                    <th>Date</th>
                    <th>Book Name</th>
                    <th>Quantity</th>
                    <th>Book Price ($)</th>
                    <th>Bill ($)</th>
                </tr>
            </thead>
            <tbody>
```

Firstly, we create a table form to see all of the current user table.

```
43 <tbody>
44
45     @foreach (var order in Model.Orders)
46     {
47         if (@order.Email == User.Identity.Name)
48         {
49             allBill += order.Bill;
50             <tr>
51                 <td>@order.Id</td>
52                 <td>@order.OrderDate</td>
53                 <td>@order.Book.Book_name</td>
54                 <td>@order.Quantity</td>
55                 <td>$@order.Price</td>
56                 <td>$@order.Bill</td>
57             </tr>
58         }
59     }
60
61     <tr>
62         <td colspan="5">Total bill</td>
63         <td>@(allBill.ToString("n2"))</td>
64     </tr>
65 </tbody>
66 </table>
67
```

```
4
5 @if
6     Layout = "_LayoutViewBook";
7     var allBill = 0.0;
8 }
9
10 <hr />
```

After that, we create a variable to sum the total money that the current user has spent on books.

+) Store Owner's Controller:

```

0 references
226 public IActionResult Order()
227 {
228     //dynamic orders = new ExpandoObject();
229     //orders.Genres = context.Genres.ToList();
230     //orders.Books = context.Books.ToList();
231     var orders = context.Orders.Include(b => b.Book)
232                                     .Where(b => b.BookId == b.Book.Id)
233                                     .ToList();
234     return View(orders);
235 }
236
237

```

We need line 231 – 233 to help reveal all of the orders of all account.

+) Store Owner's View:

View Order

```

7 <table class="table table-info">
8 <tr>
9 <th colspan="4">Order List</th>
10 </tr>
11 <tr>
12 <th>Id</th>
13 <th>Account</th>
14 <th>Date</th>
15 <th>Book Name</th>
16 <th>Quantity</th>
17 <th>Book Price ($)</th>
18 <th>Bill ($)</th>
19 </tr>
20
21 @foreach (var order in Model)
22 {
23 <tr>
24 <td>@order.Id</td>
25 <td>@order.Email</td>
26 <td>@order.OrderDate</td>
27 <td>@order.Book.Book_name</td>
28 <td>@order.Quantity</td>
29 <td>@order.Price</td>
30 <td>@order.Bill</td>
31 </tr>
32 }
33 </table>

```

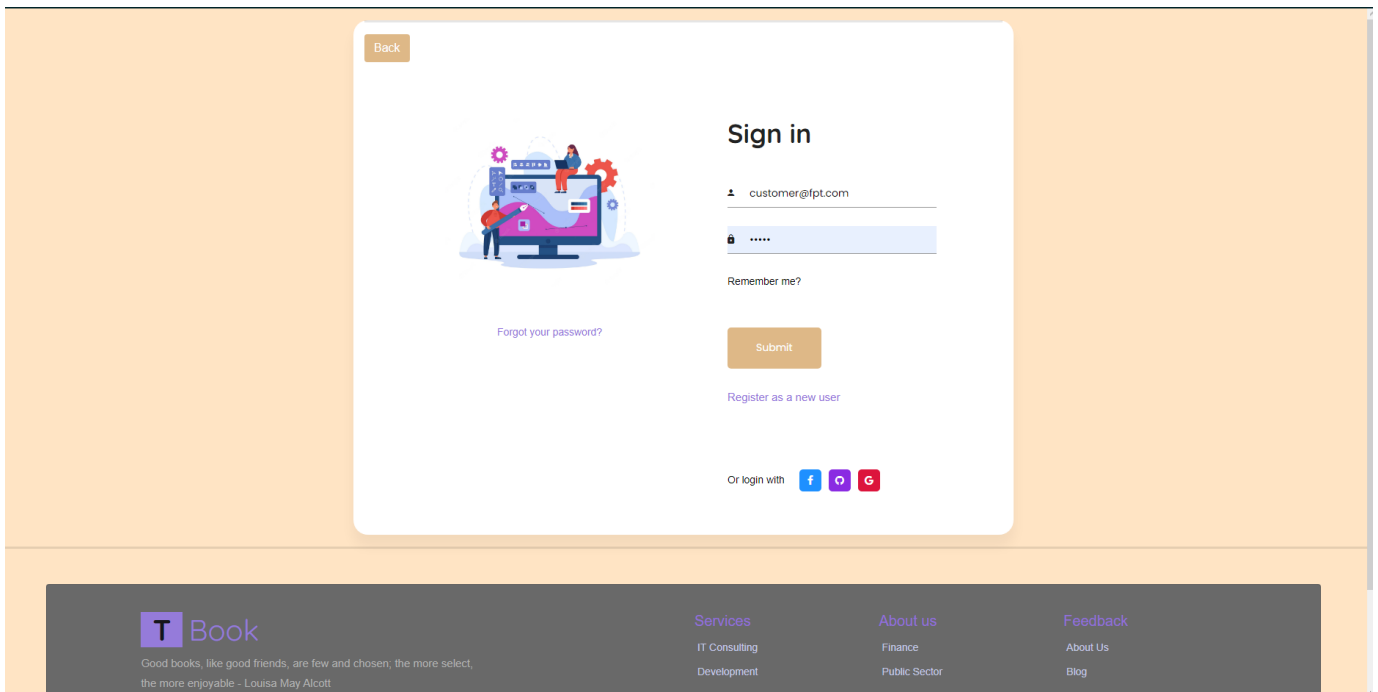
Here are the table of all order. In other word, this is the all orders list.

### 3) Final screen shot

#### The Index page

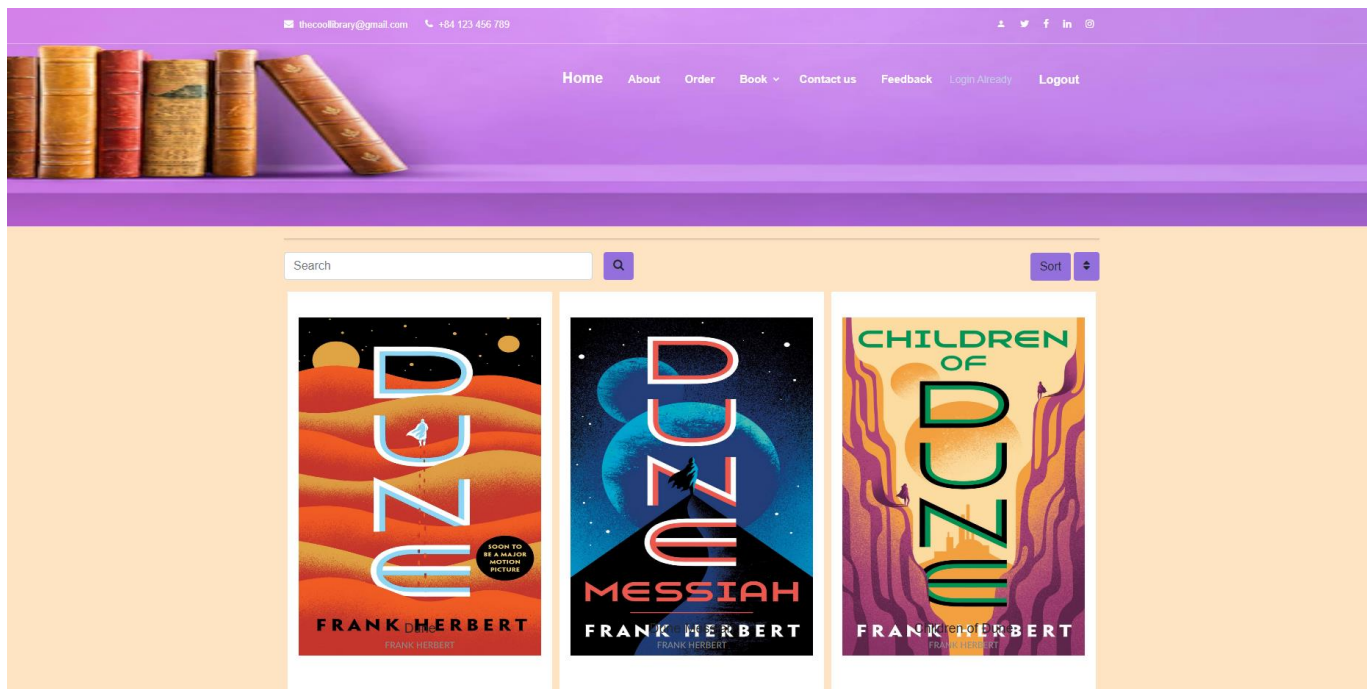


#### Login page

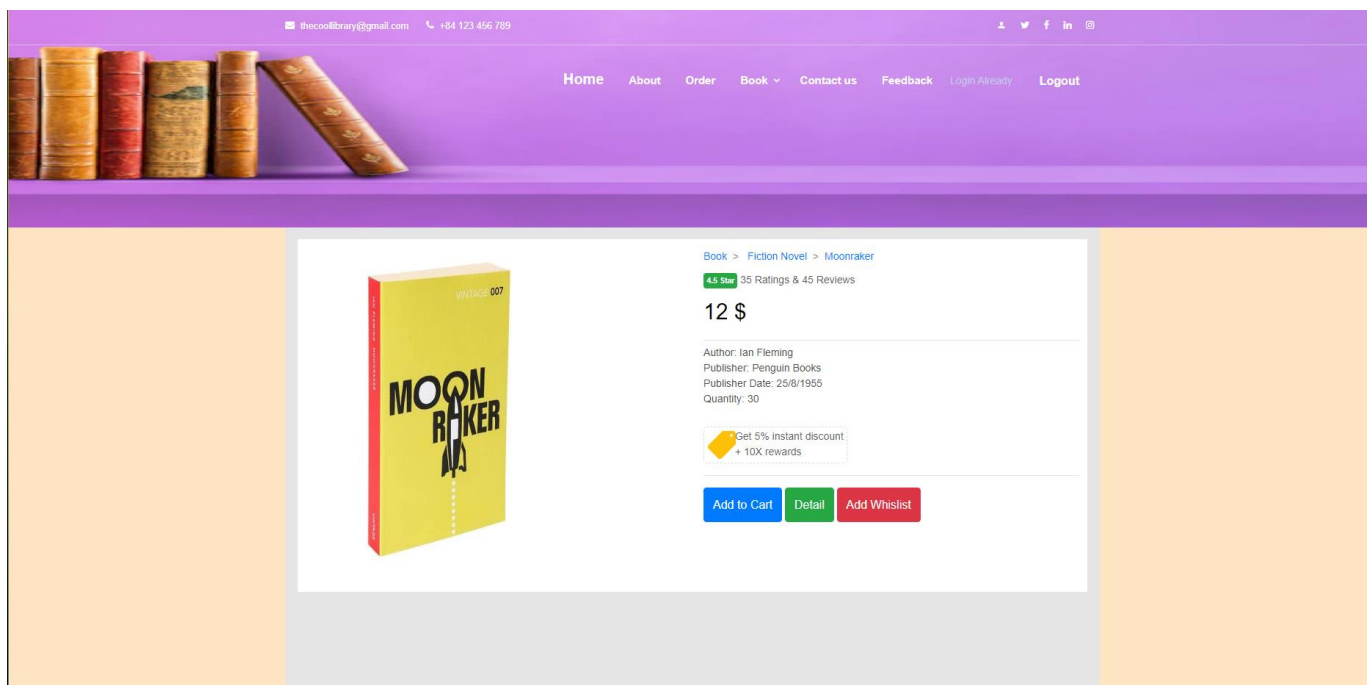




## All Book page



## Book Detail page



## Order modal

Order

Order Quantity:  
14

Title: Moonraker  
Publisher: Penguin Books  
Publisher Date: 25/8/1955  
Quantity: 30  
Author: Ian Fleming

Close Order

4.5 Star 35 Ratings & 45 Reviews

12 \$

Author: Ian Fleming

## Order list

Home About Order Book Contact us Feedback Login Already Logout

Your Order

ID	Date	Book Name	Quantity	Book Price (\$)	Bill (\$)
1	2/11/2022 12:00:00 AM	Moonraker	14	\$12	\$168
Total bill					168.00

Services About Help



Inside of the SQL server:

Order table



	Id	OrderDate	Quantity	Price	Bill	Email	BookId
	1	2/11/2022 12:00...	14	12	168	customer@fpt....	9
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Book table





8	Live and Let Die	Ian Fleming	Penguin Books	25/8/1954 12:00...	12	https://cdn.sho...	German	'You start to die...	30	1
9	Moonraker	Ian Fleming	Penguin Books	25/8/1955 12:00...	12	https://cdn.sho...	German	'For several min...	16	1
10	Diamonds Are ...	Ian Fleming	Penguin Books	25/8/1956 12:00...	12	https://cdn.sho...	German	'The twentieth ...	30	1

## Store Owner site

Hello storeowner@fpt.com! [Logout](#) [SO](#) [Book](#) [Genre](#) [Make Request](#) [Order](#) [Genre Waite](#)

 [Sort](#) 

**Manage Books** [Add New Book](#)

Image	Name	Author	Language	Quantity	Price (\$)	Menu
	Kuroko's Basketball	Tadatoshi Fujimaki	German	30	\$5	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Detail</a>
	Dragon Ball	Toriyama Akira	German	30	\$3	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Detail</a>
	Doraemon	Fujiko F. Fujio	German	30	\$3	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Detail</a>
						

## Order page of store owner

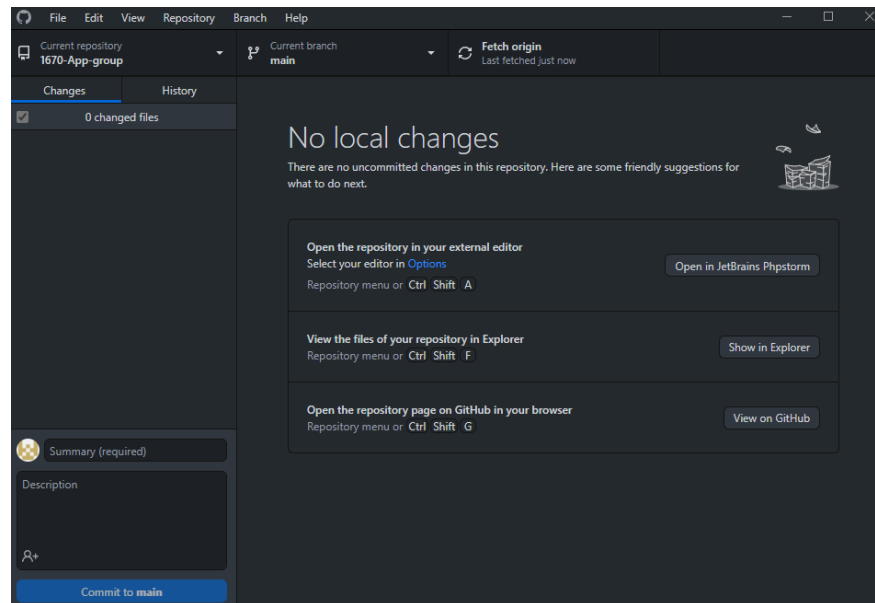
Order List						
Id	Account	Date	Book Name	Quantity	Book Price (\$)	Bill (\$)
1	customer@fpt.com	2/11/2022 12:00:00 AM	Moonraker	14	12	168
2	Cus2	2/11/2022 12:00:00 AM	Diamonds Are Forever	5	12	60

This table will have all of the orders from every account. Store owner can see it all.

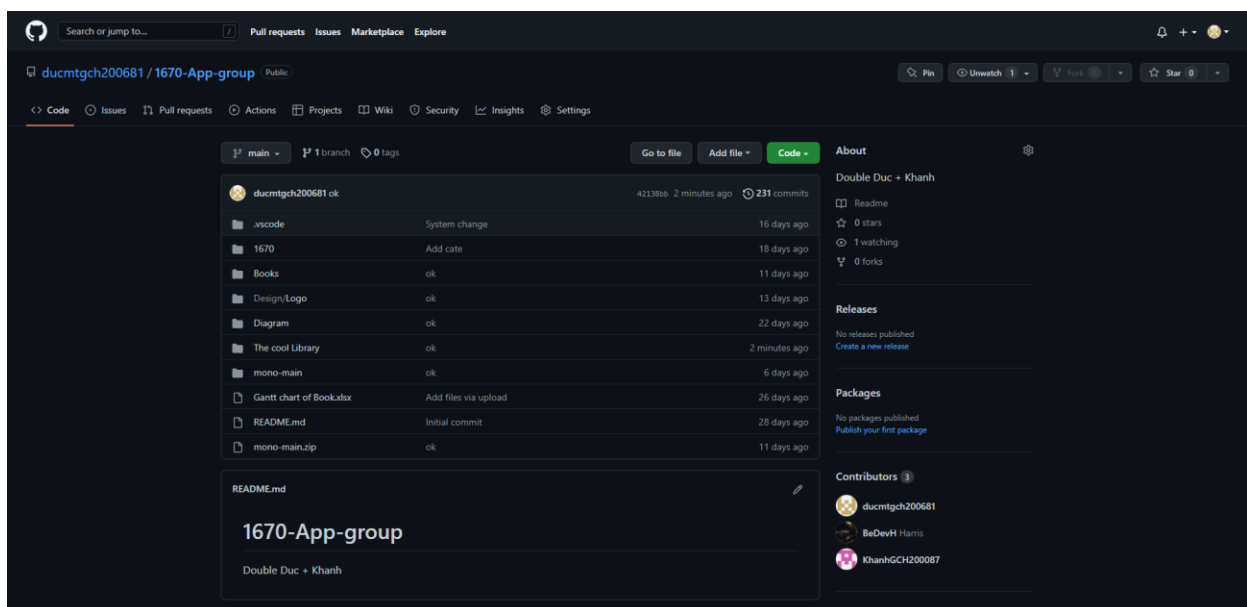
## 4) Screenshots of using GitHub to manage the source code

Link: <https://github.com/ducmtgch200681/1670-App-group>

GitHub Desktop:



GitHub on website:

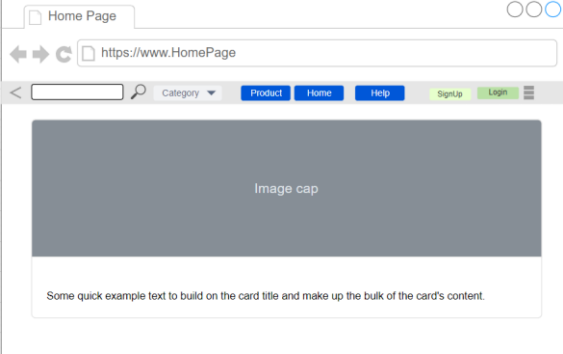


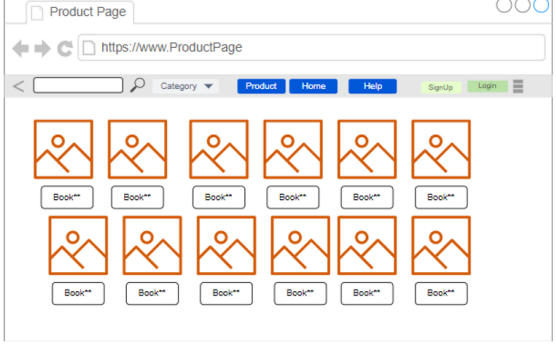
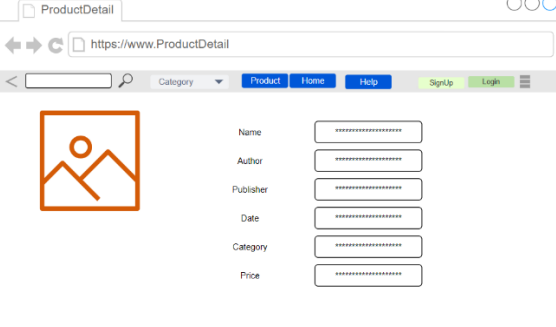
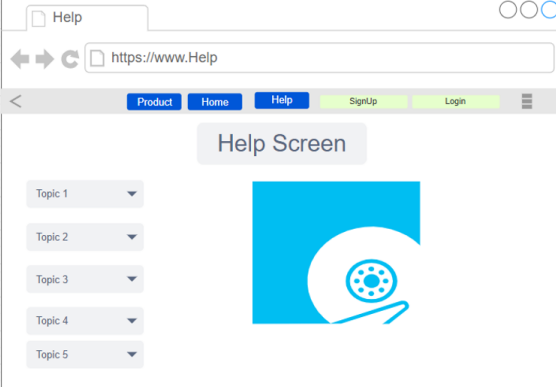
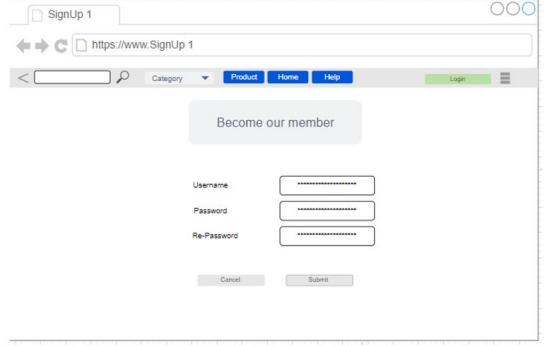
### III. APPLICATION EVALUATION

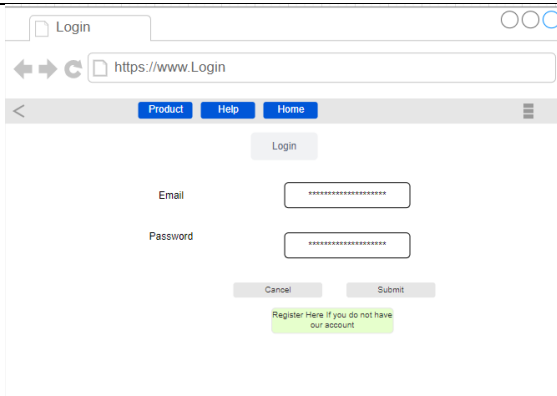
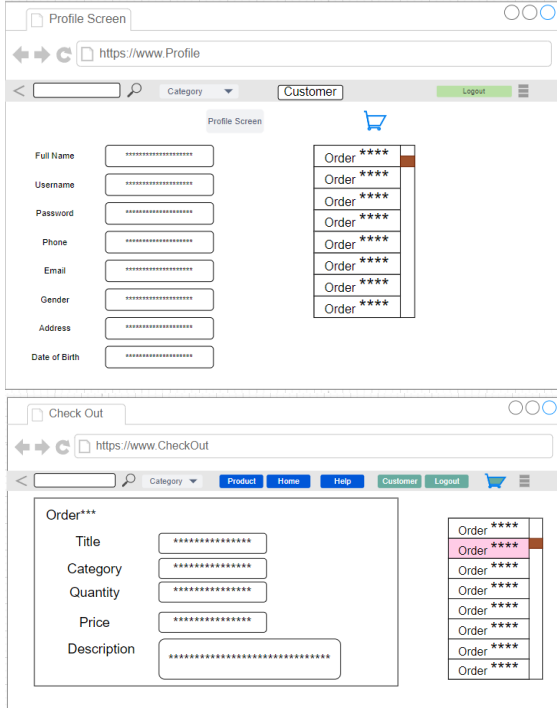
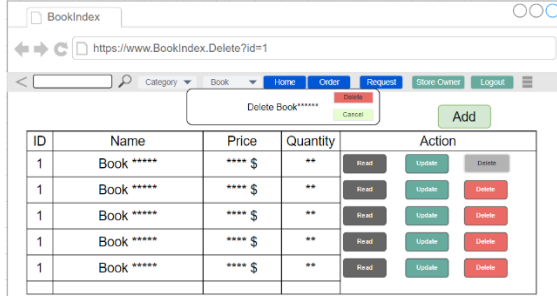
#### 1) Performance of the application

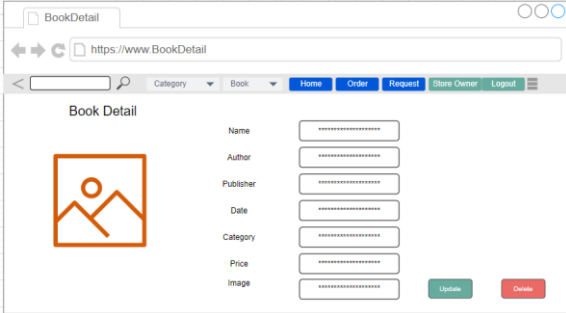
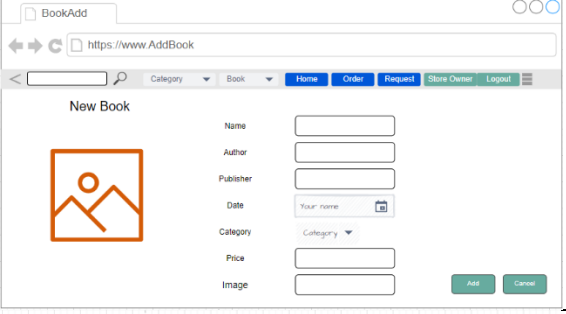
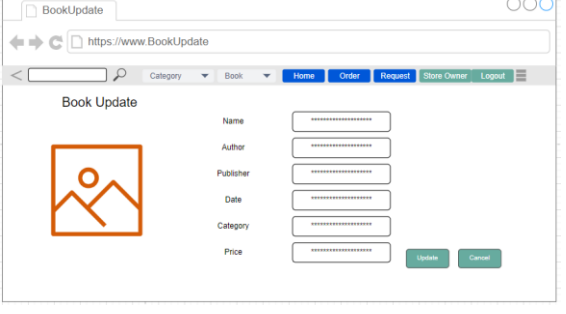
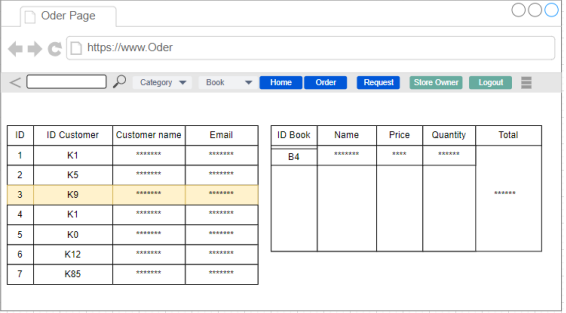
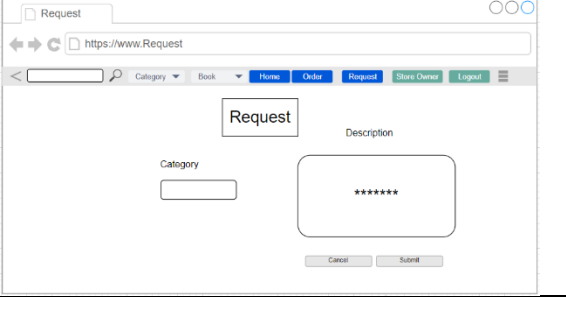
With good design and well equip function, we have created a nicely done web application. The website is fast and there are no sign of bugs or errors.

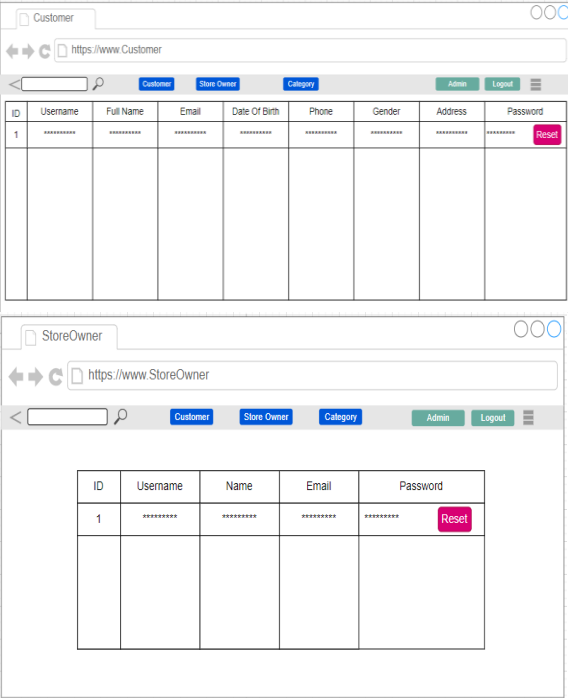
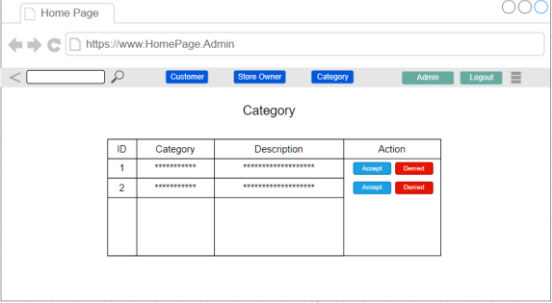
But as a developer and also a user, I think our project can get better with some more function like a cart for user, a profile management, delete account... This project have so many potential and next time when I have a chance to do some thing like this, I will definitely add them features.

Role	Name	UI Design	Note
Cust omer	Index		<p>The Index page has a better interface and detail. It has more function than UI design.</p> <p>Navbar of the Index page have more function than UI design so user can have a better experience.</p> <p>→Index home page is way more better than UI design page</p>

All Book Page		<p>The all book page have a better design, it has more color, detail and have a sort function by name and price, which UI design do not have.</p> <p>Search bar in the all book page is different than UI design, one is in the navbar, another is in the page.</p> <p>→ Actual page the all book page is better than UI design page</p>
Book Detail Page		<p>Book detail page of UI design is simple and do not have much function like actual page. It does not include path for Product page, Book genre, and book name.</p> <p>UI design do not have function Order or read book detail.</p> <p>→Book detail page is better than UI design page.</p>
Other page		<p>We also have about page, contact us page, and feedback page,...</p>
Sign Up page		<p>In UI design page, it has a nav bar but in factor page, we decide to remove the nav bar and change it to a button, which user will be returned to home page if is pressed.</p> <p>→Sign up page has a better layout, it has more color, image than UI design page.</p> <p>In UI design, after user enter Username, password, co-password, it will redirect user to customer detail page, which actual page do not have.</p> <p>→ UI design page is better because it is more detail than actual page</p>

	Sign In page		<p>In UI design, Login page has a nav bar, which factor page do not have.</p> <p>Factor page have a better layout than UI design page because it has more icon, color, image and reasonable button with link.</p> <p>→ Sign In page is better than UI design page</p>
Cust omer	Profile page, Checkout page, Order page		<p>In UI design, user have a profile screen, where they can view their data and their cart. But in actual page, user only have an order page, where they can view their order</p> <p>In UI design, user have a Checkout page, where they can check their order, which in actual page, order page have a same function but it has a better layout.</p> <p>→ UI design is better than page design because it has more detail and function.</p>
Stor e Own er	Delete a book in book list		<p>Delete function in UI design and factor design look the same.</p>

Book Detail		Book detail page of UI design is simple and do not have much function like factor page. It does not include path for Product page, Book genre, and book name.  →The book detail page is better than UI design page.
Add new book		Add new book page of UI design is simple and do not have much function and data field like the actual page.  →The add new book page is better than UI design page.
Update book page		Update book page of UI design is simple and do not have much function and data field like factor page.  →The update book page is better than UI design page.
Customer order page		Customer order book page of UI design is better than order book design because it has a smart and scientific layout.  Customer order book of UI design is better than factor design
Make request genre page		Make request genre page design is has a same function but a better layout than UI design.
Genre list page		→ Genre list design is where people can view available genre in the database

			and check if admin accept their request genre or not
Admin	Detail page for customer and store Owner		UI design page have a detail page, where they can view data of customer and storeowner, and reset their account password if needed, which factor design page do not have.
	Request genre page		Request genre page design have a same function but a better layout than UI design page.



## 2) Strengths and Weaknesses of the application

### Strengths:

- The system is more practical than it is detailed, containing fields like publisher, date, and author as well as a search feature, sort by name, and book price.
- In comparison to the specifications in the SRS document, the system has achieved 80% of the functionalities.
- The system's design is superior to UI design.
- Comparing the system's upgraded pages to the suggested design.

### Weaknesses:

- The system contains numerous minor typographical and syntax issues.
- The system is still in operation, and features like the shopping cart and the ability to access user information should not be disabled when the account or password is incorrect.