

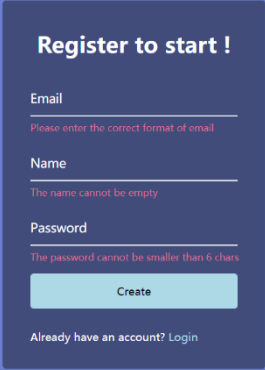
Content

1. Login and Dashboard.....	2
1.1 Final UI design of Login	2
1.2 LLD of Login	4
1.3 Test Login	4
2. Category	5
2.1 Final UI design of Category	5
2.2 LLD of Category	6
2.3 Test Category	7
3. Product	9
3.1 Final UI design of Product	9
3.2 LLD of Product	11
3.3 Test Product	11
4. Order	14
4.1 Final UI design of Order	14
4.2 LLD of Order	16
4.3 Test Order.....	17
5. User	20
5.1 Final UI design of User	20
5.2 LLD of User	21
5.3 Test User	21
6. Coupon.....	22
6.1 Final UI design of Coupon	22
6.2 LLD of Coupon	26
6.3 Test Coupon.....	27
7. Use case diagram	29
8. Database Design and ER diagram	30
8.1 List of tables.....	30
8.2 Detailed structure of each table	30
8.3 ER diagram.....	32

1. Login and Dashboard

1.1 Final UI design of Login

Register page (If you don't have an account, you need to register first by setting your email, name and password). The system will validate the information.



Register to start !

Email
Please enter the correct format of email

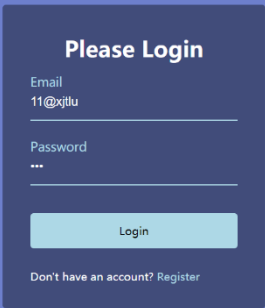
Name
The name cannot be empty

Password
The password cannot be smaller than 6 chars

Create

Already have an account? [Login](#)

Login page (After creating an account, you can sign in the system.)



Please Login

Email
11@xjtu

Password

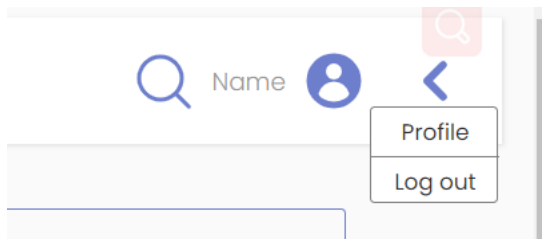
Login

Don't have an account? [Register](#)

Dashboard page (After login, the store admin will see the dashboard page as below.)



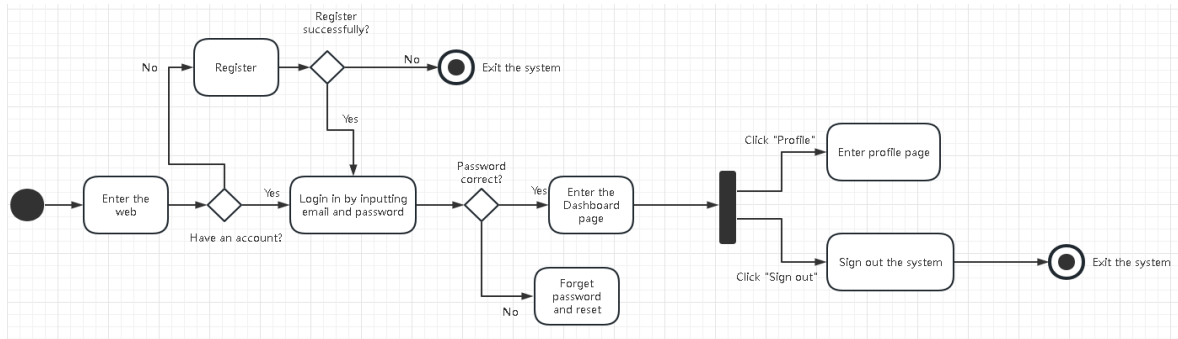
Navbar (you will see the Navbar in the right top of the page, it could view the profile and log out.)



Profile (you will see the admin profile here)

The screenshot shows the 'Store Backstage' profile page. The sidebar is identical to the dashboard page. The main content area features a large blue circular profile icon on the left. To the right of the icon are form fields for user information: Username (xu), Email (11@xjtu.cn), Password (123), Payment Method (Wechat), and Shopping Address (Suzhou).

1.2 LLD of Login



1.3 Test Login

Summary	Steps	Expected result	Functionality	Actual result
Ensure the Login page is properly laid out	1. Navigate to http://127.0.0.1/can302/ass2/log in.php 2. Click the order in the sidebar	The page is properly laid out according to the design	Login	Pass
Ensure the validation function is useful	1. Navigate to http://127.0.0.1/can302/ass2/log in.php 2. Input the wrong email and password	The system will remind incorrect password or wrong account	Login	Pass
Ensure the validation function is useful	1. Navigate to http://127.0.0.1/can302/ass2/log in.php 2. Input the correct email and password	Login successfully and enter the Dashboard page	Login	Pass
Ensure the register function is useful	1. Navigate to http://127.0.0.1/can302/ass2/sign up.php 2. Set the email address with the wrong format	The system will remind please enter the correct format of email.	Sign up	Pass
Ensure the register function is useful	1. Navigate to http://127.0.0.1/can302/ass2/sign up.php 2. Set the email address with the correct format and password	Register successfully	Sign up	Pass
Ensure the Dashboard is properly laid out	1. Navigate to http://127.0.0.1/can302/ass2/index.php	The page is properly laid out according to the design	Dashboard	Pass
Ensure viewing the profile is useful	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click "Profile" in the top right	The system will enter the page that views the profile	Dashboard	Pass
Ensure sign out function is useful	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click "Sign out" in the top right	The store admin will sign out	Dashboard	Pass

2. Category

2.1 Final UI design of Category

Category page (The admin can enter the new category name in the input form and click “Add” button to add new category)

The screenshot shows the 'Store Backstage' interface. On the left is a blue sidebar with navigation links: 'Web store', 'DashBoard', 'Category' (highlighted), 'Order', 'Product', 'User', and 'Coupon'. At the bottom of the sidebar is a 'Back to HOME' button. The main content area has a header with a 'Toggle Sidebar' button, a search bar labeled 'Name', and a user profile icon. Below the header is a form to 'Please input category name' with an 'Add' button highlighted by a green box. Below the form is a table with category data.

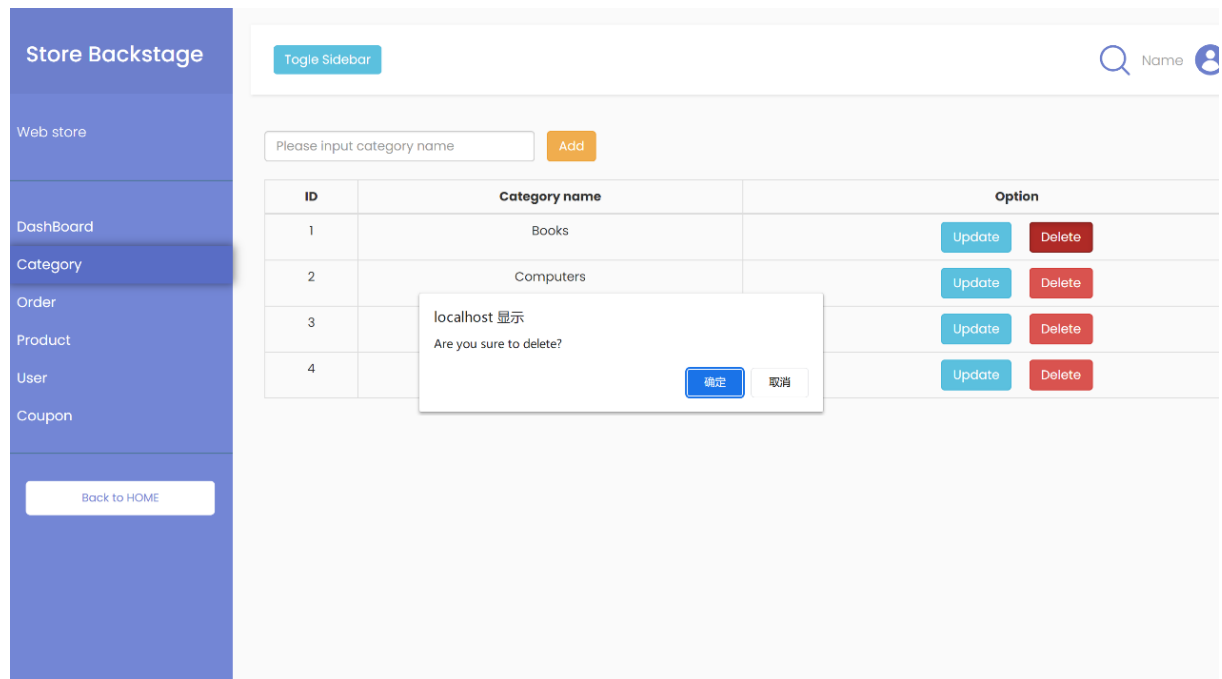
ID	Category name	Option
1	Books	<button>Update</button> <button>Delete</button>
2	Computers	<button>Update</button> <button>Delete</button>
3	Clothes	<button>Update</button> <button>Delete</button>
4	Office supplies	<button>Update</button> <button>Delete</button>

Update category (Admin can click the “Update” button of a category to enter the new category name in the pop-up update window, and then click “Update” to update the category.)

This screenshot shows the same 'Store Backstage' interface as the previous one, but with a modal window open for updating a category. The 'Update' button for the 'Books' category in the table is highlighted. The modal window, titled 'Update the category name', contains a text input field labeled 'Please input category name' and an 'Update' button.

ID	Category name	Option
1	Books	<button>Update</button> <button>Delete</button>
2	Computers	<button>Update</button> <button>Delete</button>
3	Clothes	<button>Update</button> <button>Delete</button>
4	Office supplies	<button>Update</button> <button>Delete</button>

Delete category (Admin can click the “Delete” button of a category, confirm deletion in the pop-up window to delete a category.)



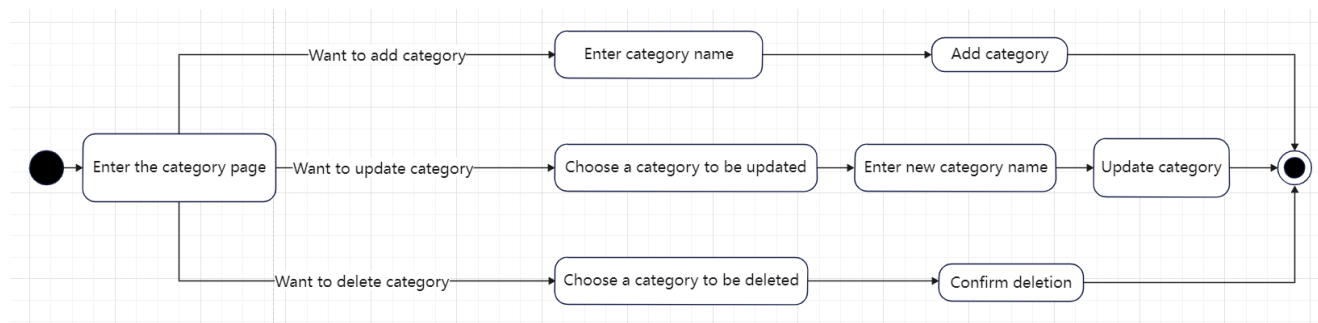
2.2 LLD of Category

Store admin need to enter the category page to conduct the category management.

To add a category, the new category name should be entered. Then, click “Add” button to add the new category.

To update a category, click the “update” button of the category which is chosen to be updated. Next, the new category name should be entered in the pop-up window. Finally, click the “Update” button in the pop-up window to update that category.

To delete a category, click the “Delete” button of the category which is chosen to be deleted. Finally, confirm the deletion in the pop-up window to delete that category.



2.3 Test Category

Summary	Steps	Expected result	Functionality	Actual result
Ensure the category management page is properly laid out and rendered	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 	The page is properly laid out according to the design	Category list	Pass
Ensure the new category can be added successfully	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 3. Enter new category name in the input form 4. Click “Add” button 	The new category shows up at the end of the category list	Add category	Pass
Ensure the update pop-up window can show up successfully	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 3. Click the “Update” button of a category 	A pop-up window shows up with an input form and a “Update” button	Update category	Pass
Ensure the update pop-up window can be closed successfully	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 3. Click the “Update” button of a category 4. Click the close icon of the pop-up window 	The pop-up window is closed	Update category	Pass
Ensure the chosen category can be updated successfully	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 3. Click the “Update” button of the chosen category. 4. Enter the new category name in the input form of the pop-up window 5. Click “Update” button in the pop-up window 	The name of the chosen category is updated by the entered new name.	Update category	Pass

Ensure the deletion confirm windows can show up successfully	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 3. Click the “Delete” button of a category 	A deletion confirm window shows up	Delete category	Pass
Ensure the deletion can be cancelled successfully	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 3. Click the “Delete” button of a category 4. Click the “Cancel” button of the pop-up window 	The deletion is cancelled and the pop-up window is closed	Delete category	Pass
Ensure the chosen category can be deleted successfully	<ol style="list-style-type: none"> 1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click “Category” in the sidebar 3. Click the “Delete” button of the chosen category 4. Click the “Confirm” button of the pop-up window 	The chosen category is deleted	Delete category	Pass

3. Product

3.1 Final UI design of Product

Product page (Click the product option in the sidebar to enter the product page. From here, the administrator can view a list of all products in the store and can add, update, or delete them.)

The screenshot shows the 'Store Backstage' interface. On the left is a sidebar with navigation links: 'Web Store', 'DashBoard', 'product', 'Order', 'Product', 'User', and 'Coupon'. The 'product' link is active. The main content area has a 'Toggle Sidebar' button and a search bar. Below these is an 'Add' button and a table of products. The table has columns for ID, Product name, Description, Price, Stock, Category, and Option. The 'Option' column contains 'Update' and 'Delete' buttons for each product. At the bottom of the table is a pagination control showing pages 1, 2, 3, and 4.

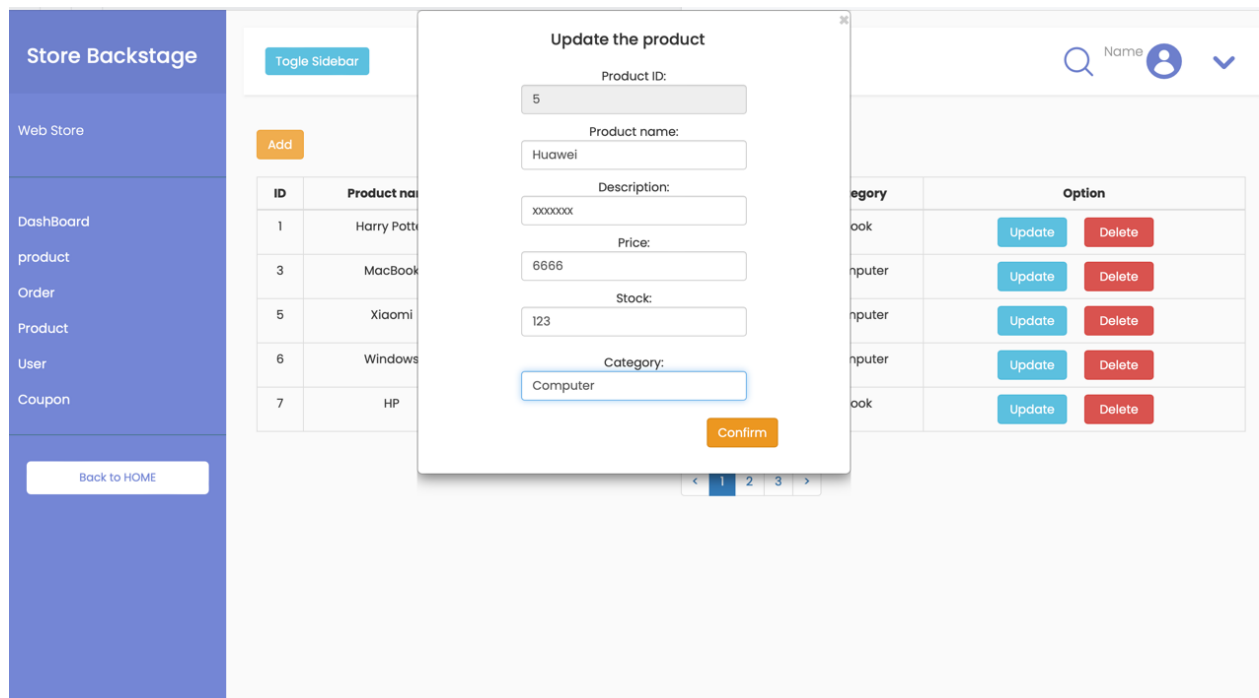
ID	Product name	Description	Price	Stock	Category	Option
1	Harry Potter	xxx	50	19	Book	<button>Update</button> <button>Delete</button>
3	MacBook	xxxx	9999	40	Computer	<button>Update</button> <button>Delete</button>
5	Xiaomi	xxxxx	6666	11	Computer	<button>Update</button> <button>Delete</button>
6	Windows	xxx	7777	66	Computer	<button>Update</button> <button>Delete</button>
7	HP	xxx	66	55	Book	<button>Update</button> <button>Delete</button>

Add product (Click the add button, and the administrator can enter the information about the new product.

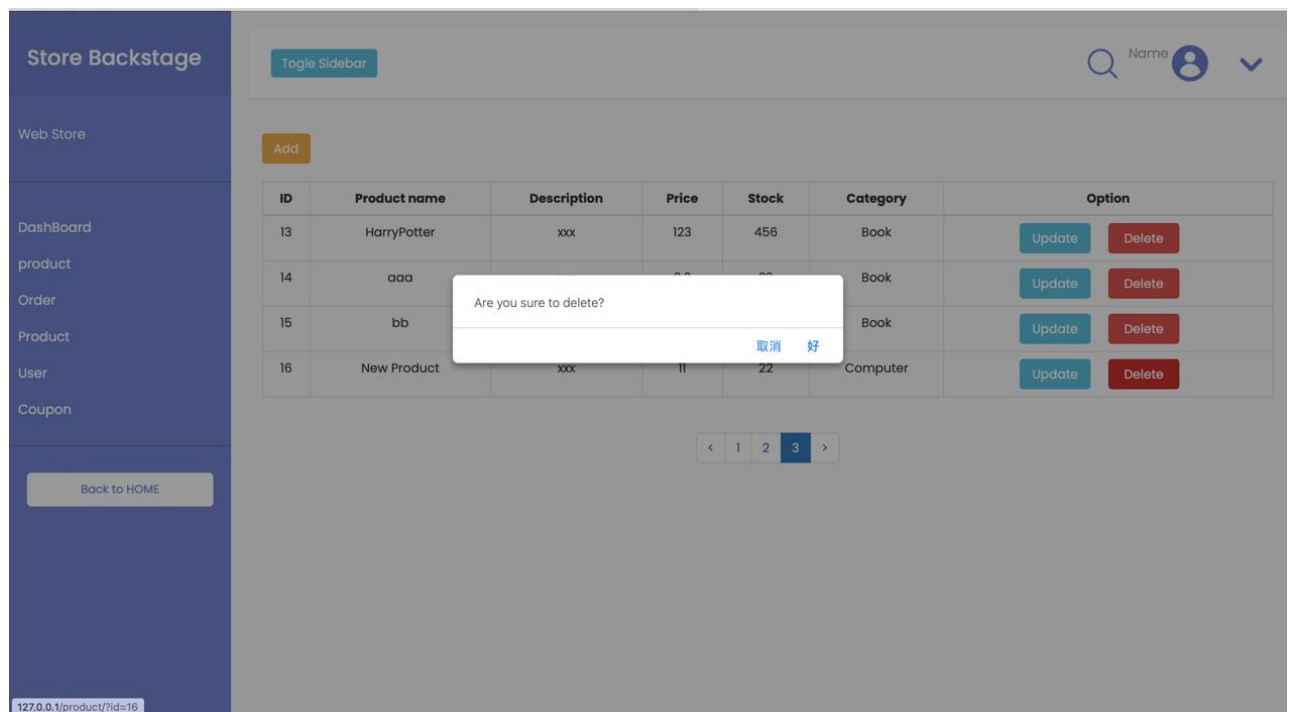
After clicking confirm, you can insert a new product into the product list)

This screenshot shows the same 'Store Backstage' interface as the previous one, but with the 'Add the product' modal open. The modal contains input fields for 'Product name:', 'Description:', 'Price:', 'Stock:', and 'Category:'. The 'Confirm' button is at the bottom right of the modal. The background table and sidebar are partially visible behind the modal.

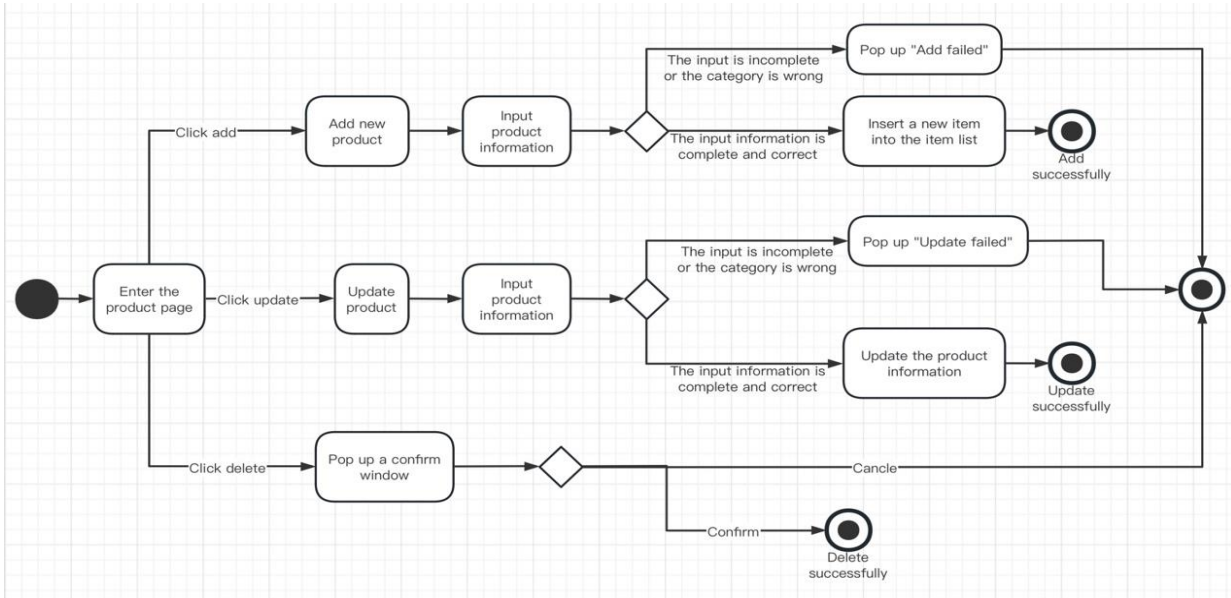
Update product (Click the update button, and the administrator can enter the information about the modified product. After clicking confirm, you can update the product information.)



Delete product (Click the delete button, and the administrator can choose whether to delete the product. After clicking ok, the product can be deleted from the product list.)



3.2 LLD of Product



3.3 Test Product

Summary	Steps	Expected Result	Actual Result	Functionality	Test Result
Ensure the product list is properly laid out and rendered	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click the “product” in the sidebar	The page is properly laid out according to the design.	The page is properly laid out according to the design.	Product list	Pass
Ensure the bottom page bar is properly laid out and rendered	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click the “product” in the sidebar	The bottom page bar is properly laid out according to the design.	The bottom page bar is properly laid out according to the design.	Page turning function	Pass
Ensure to display the product list content of each page correctly	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click the page-turning buttons or page number buttons at the bottom	The product list corresponding to the number of pages appears	The product list corresponding to the number of pages appears	Page turning function	Pass
Ensure the add button is properly laid	1. Navigate to http://127.0.0.1/can302/ass2/index.php	The button is properly laid out	The button is properly laid	Add product function	Pass

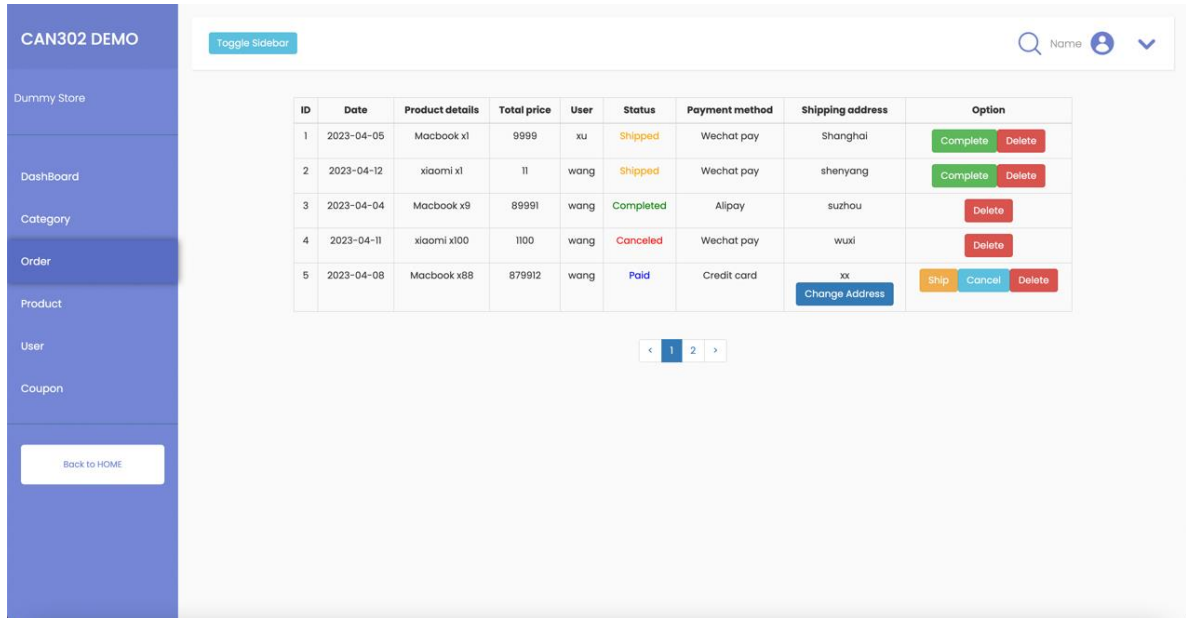
out and rendered	2. Click the “product” in the sidebar	according to the design.	out according to the design.		
Ensure pressing the add button pops up the form	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click the add button above the table	The window for adding products appears	The window for adding products appears	Add product function	Pass
Ensure the form which submitted correctly can add the items to the database	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click the add button above the table 3. Enter the form of product information correctly and click “Confirm”	The add product window is closed, and the added product appears at the end of the product list	The add product window is closed, and the added product appears at the end of the product list	Add product function	Pass
Ensure the store admin must fill in all information and the category entered must be in the category list	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click the add button 3. Enter the category wrongly or miss several information and click “Confirm”	Incomplete product information or wrong categories cannot be added to the product list, and a pop-up prompt "Add failed!"	Incomplete product information or wrong categories cannot be added to the product list, and a pop-up prompt "Add failed!"	Add product function	Pass
Ensure the update is properly laid out and rendered	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click the “product” in the sidebar	The button is properly laid out according to the design.	The button is properly laid out according to the design.	Update product function	Pass
Ensure the update button pops up the form	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click a update button	The window for updating products appears	The window for updating products appears	Update product function	Pass

Ensure the form which submitted correctly can update the items to the database	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click a update button 3. Enter the product information correctly and click “Confirm”	The update product window is closed, and the information updated successfully	The update product window is closed, and the information updated successfully	Update product function	Pass
Ensure the store admin must fill in all information and the category entered must be in the category list	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click the update button 3. Enter the category wrongly or miss several information and click “Confirm”	Incomplete product information or wrong categories cannot be updated, and a pop-up prompt “Update failed”	Incomplete product information or wrong categories cannot be updated, and a pop-up prompt “Update failed”	Update product function	Pass
Ensure the delete is properly laid out and rendered	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click the “product” in the sidebar	The button is properly laid out according to the design.	The button is properly laid out according to the design.	Delete product function	Pass
Ensure pressing the delete button pops up the confirming message	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click the delete button on each line	The window for confirming appears	The window for confirming appears	Delete product function	Pass
Ensure to delete the items from the database if store admin confirmed	1. Navigate to http://127.0.0.1/can302/ass2/product.php 2. Click a delete button 3. Click “Confirm”	The confirm window is closed, and the product deleted successfully	The confirm window is closed, and the product deleted successfully	Delete product function	Pass

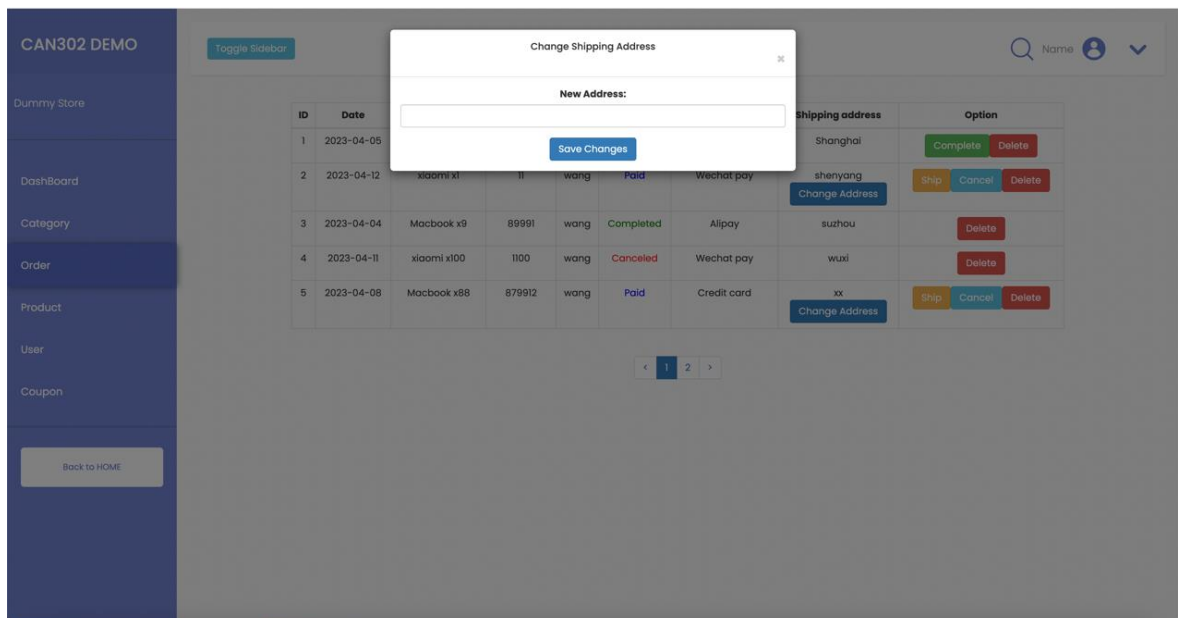
4. Order

4.1 Final UI design of Order

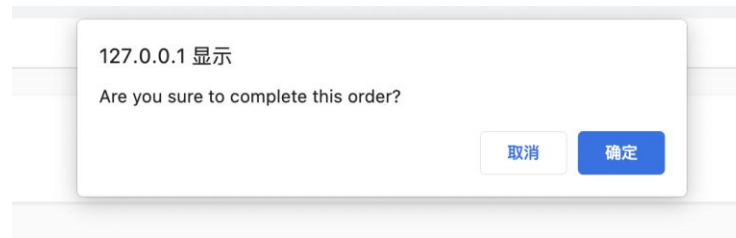
Order page (Upon clicking the order management option in the sidebar, the administrator will be directed to the order management interface, which is illustrated in Figure 1. This interface will display all relevant information pertaining to the order, including the date of purchase, product details, total price, user information, order status, payment method, and shipping address.)



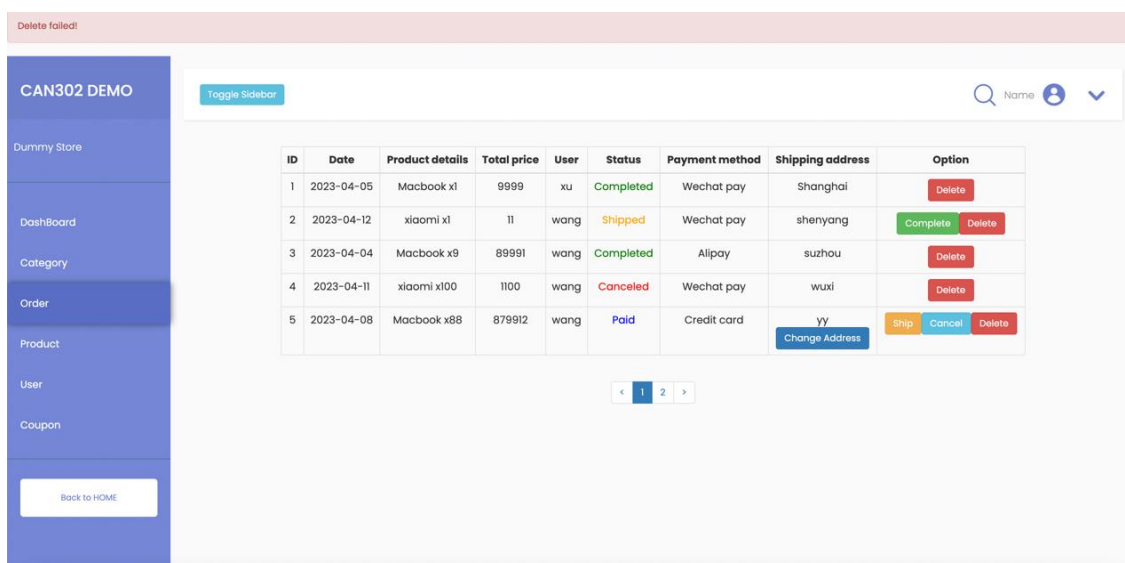
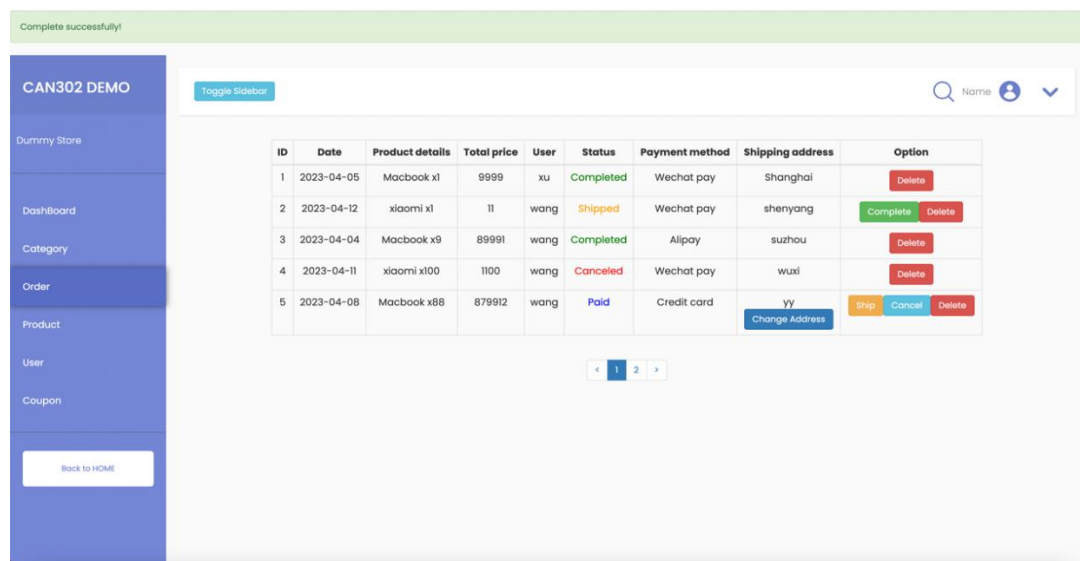
Change address (If the admin selects the "change address" button, a dialog box will appear, allowing them to input the updated shipping address.)



Within the options section, the administrator can modify the status of the order. Upon selecting any of the available options, a confirmation window will appear, ensuring that the administrator does not accidentally click the wrong button, as depicted below.



After confirming the status change, if it is successful, the system will display a success alert message, as shown in Figure 4. Conversely, if the status change is unsuccessful, the system will display a danger alert message, as illustrated below.

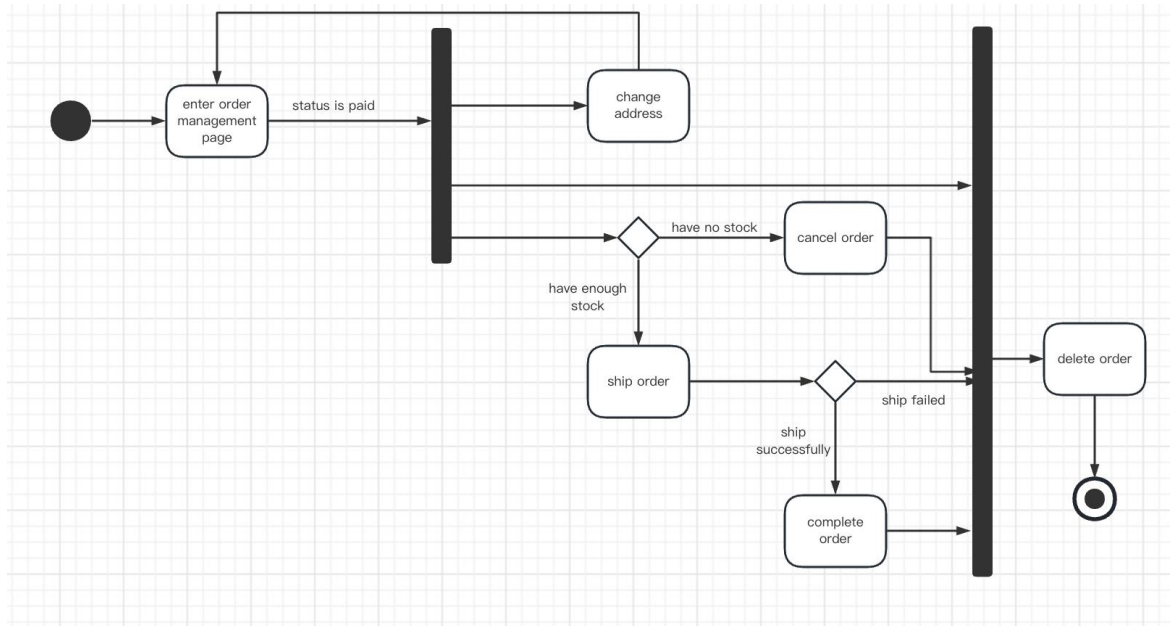


The order management interface also includes a pagination function that displays up to five orders per page. The user can navigate between pages by either clicking on the desired page number or by using the forward and backward navigation buttons.

ID	Date	Product details	Total price	User	Status	Payment method	Shipping address	Option
6	2023-04-05	xiaomi xl	11	xu	Shipped	Wechat pay	suzhou	Complete Delete
7	2023-04-11	Macbook xl	9999	wang	Canceled	Alipay	shandong	Delete

4.2 LLD of Order

The order management system assumes that only customers who have successfully completed their payment will be granted access to the order management interface. Customers who have not yet placed an order or have placed an order but not completed their payment will not be counted. Once a customer has completed their payment, the administrator will only be able to change the shipping address associated with the order. Additionally, customers will have the ability to cancel their orders before shipment. Assuming that there is sufficient stock available in the inventory, the order will be shipped out. Otherwise, the process will be canceled. Upon successful shipment, the order will be marked as completed. In all states, the administrator will have the ability to manage the order by deleting it from the system.



4.3 Test Order

Summary	Steps	Expected result	Functionality	Actual result
Ensure the order management page is properly laid out	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click the order in the sidebar	The page is properly laid out according to the design	Order list	Pass
Ensure the change address dialog popped up successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click the “Change Address” option	A dialog box pops up	Change address	Pass
Ensure the “Save changes” option in the change address dialog change the address successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click the Change Address option 3. Input the new address 4. Click “Save changes” option	It changes the address successfully and displays alert success message “Address updated successfully!”	Change address	Pass
Ensure the ship order confirmation	1. Navigate to http://127.0.0.1/can302/ass2/order.php	It pops up a box and asks the	Ship order	Pass

works successfully	2. Click “Ship” button	administrator to confirm		
Ensure the confirm option in ship order works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Ship” button 3. Click “Confirm” button	It changes the order status to shipped and displays alert success message “Ship successfully!”	Ship order	Pass
Ensure the cancel order confirmation works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Cancel” button	It pops up a box and asks the administrator to confirm	Cancel order	Pass
Ensure the confirm option in cancel order works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Cancel” button 3. Click “Confirm” button	It changes the order status to canceled and displays alert success message “Cancel successfully!”	Cancel order	Pass
Ensure the complete order confirmation works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Complete” button	It pops up a box and asks the administrator to confirm	Complete order	Pass
Ensure the confirm option in complete order works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Complete” button 3. Click “Confirm” button	It changes the order status to completed and displays alert success message “Complete successfully!”	Complete order	Pass

Ensure the delete order confirmation works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Delete” button	It pops up a box and asks the administrator to confirm	Delete order	Pass
Ensure the confirm option in delete order works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Delete” button 3. Click “Confirm” button	It changes the order status to deleted and displays alert success message “Delete successfully!”	Delete order	Fail
Ensure the confirm option in delete order works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click “Delete” button 3. Click “Confirm” button	It changes the order status to deleted and pops up a window and displays “Delete successfully!”	Delete order	Pass
Ensure the pagination function works successfully	1. Navigate to http://127.0.0.1/can302/ass2/order.php 2. Click on the desired page number or use the forward and backward navigation buttons	It jumps to the right page.	Pagination function	Pass

The failure to delete an order may occur when the order has been successfully removed from the system and its associated id has disappeared, making it impossible to redirect to the page.

Fatal error: Uncaught Error: Call to a member function rowCount() on bool in /Applications/XAMPP/xamppfiles/htdocs/can302/ass2/order.php:135 Stack trace: #0 /Applications/XAMPP/xamppfiles/htdocs/can302/ass2/order.php(383): order_list(Object(PDO)) #1 {main} thrown in /Applications/XAMPP/xamppfiles/htdocs/can302/ass2/order.php on line 135

To solve the issue of failed deletion of an order due to the disappearance of its associated id, an alternative solution could be to redirect the user back to the main page of the order management interface.

```

if (myget('action') == 'delete') {
    $id = myget('id');
    // $sql = "DELETE FROM `order` WHERE order_id = $id";
    //delete the order and order_detail with the same id in the database
    $sql = "DELETE FROM `order_detail` WHERE order_id = $id;DELETE FROM `order` WHERE order_id = $id";
    $query = $con->query($sql);
    if ($query) {
        //alert success and jump to the same page
        //show $id_user
        echo '<script>alert("Delete successfully!");
        window.location.href="order.php?param='.$_SESSION['id_user'].'&id='.$_SESSION['order_id'].'&page=' . ceil($_SESSION['order_id'] / 5) . '";</script>';
        // echo '<div class="alert alert-success">Delete successfully!</div>';
    } else {
        echo '<div class="alert alert-danger">Delete failed!</div>';
    }
}

```

5. User

5.1 Final UI design of User

User page (The admin could see use information, such as user ID, user Name and User payment method here.)

We consider that store admin can't add new users or delete users' info, so we only set "update user" function in this page.

Store Backstage						
Toggle Sidebar						
Web Store						
DashBoard						
Category						
Order						
Product						
User						
Coupon						
Back to HOME						
User ID	User Name	Email	Password	Payment Method	Shipping Method	Option
1	xu	11@xjtlu.cn	123	Wechat Pay	Suzhou	<button>Update</button>
2	zhai	22@xjtlu.cn	456	Alipay	Shanghai	<button>Update</button>
3	zheng	33@xjtlu.cn	333	Wechat Pay	Wuxi	<button>Update</button>
4	yin	44@xjtlu.cn	44\$\$\$	Alipay	Shandong	<button>Update</button>
5	you	55@xjtlu.cn	123	Credit Card	Shenzhen	<button>Update</button>
6	yang	66@xjtlu.cn	44466644	Credit Card	Shanghai	<button>Update</button>

User Info Update Pop Up Window

Update the User name

Please input user name

Update the Password

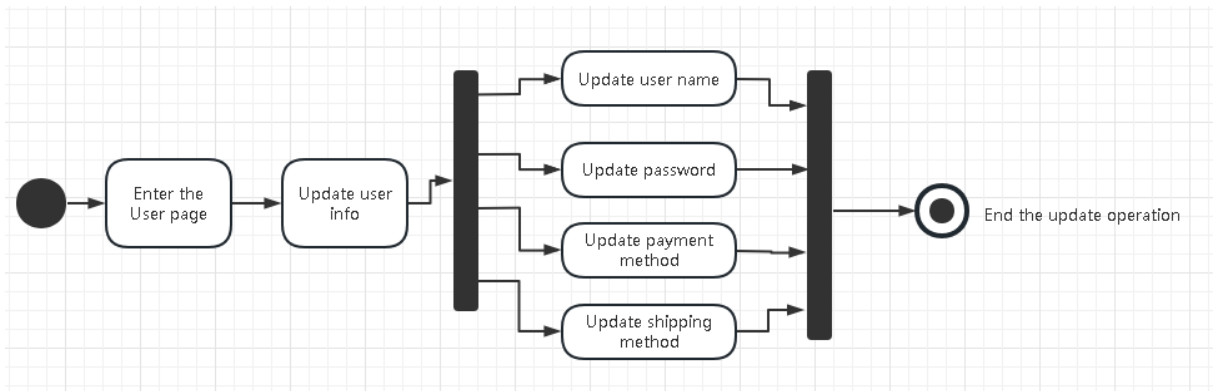
Please input new psw

Update

User Info After Updating

User ID	User Name	Email	Password	Payment Method	Shipping Method	Option
1	Xu	11@xjtlu.cn	Xuhuijie	Wechat Pay	Suzhou	<button>Update</button>

5.2 LLD of User



5.3 Test User

Summary	Steps	Expected result	Functionality	Actual result
Ensure the User page is properly laid out	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click the “User” in the sidebar. 3. You can see the “user” page.	The page is properly laid out according to the design	User	Pass
Ensure updating user name function is useful	1. Navigate to http://127.0.0.1/can302/ass2/user.php 2. Input new user name.	Updating successfully and show the new user's name in the “User” page.	Update user	Pass
Ensure updating password function is useful	1. Navigate to http://127.0.0.1/can302/ass2/user.php 2. Input new user password.	Updating successfully and show the new user's password in the “User” page.	Update user	Pass
Ensure updating user payment method function is useful	1. Navigate to http://127.0.0.1/can302/ass2/user.php 2. Input new payment method number. (Different number represents different payment method, such as WeChat payment and Alipay)	Updating successfully and show the new payment method in the “User” page.	Update user	Pass
Ensure updating user shipping address function is useful	1. Navigate to http://127.0.0.1/can302/ass2/user.php 2. Input new shipping address.	Updating successfully and show the new shipping address in the “User” page.	Update user	Pass
Ensure the update function is useful	1. Navigate to http://127.0.0.1/can302/ass2/user.php 2. Update some user info. 3. Click “Update” button.	The information will be changed and saved successfully.	Update user	Pass

6. Coupon

6.1 Final UI design of Coupon

Coupon page

Store Backstage

Web Store

Dashboard

Category

Order

Product

User

Coupon

Back to HOME

Toggle Sidebar

Search Xu User

Add coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
1	SALE20	20	2023-05-31	Xu	No	<button>Update</button> <button>Delete</button>
2	NewYear25	25	2023-06-15	zhai	No	<button>Update</button> <button>Delete</button>
3	Valetine20	20	2023-06-30	zheng	No	<button>Update</button> <button>Delete</button>
4	SALE30	30	2023-06-30	Xu	No	<button>Update</button> <button>Delete</button>
5	Summer10	10	2023-07-10	zhai	No	<button>Update</button> <button>Delete</button>

< 1 2 3 >

Add coupon page

Store Backstage

Web Store

Dashboard

Category

Order

Product

User

Coupon

Back to HOME

Toggle Sidebar

Search Xu User

Add coupon

Add coupon

Discount:

User:

Expiration Date:

年 / 月 / 日

Voucher Code:

Add Coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
1	SALE20	20	2023-05-31	Xu	No	<button>Update</button> <button>Delete</button>
2	NewYear25	25	2023-06-15	zhai	No	<button>Update</button> <button>Delete</button>
3	Valetine20	20	2023-06-30	zheng	No	<button>Update</button> <button>Delete</button>
4	SALE30	30	2023-06-30	Xu	No	<button>Update</button> <button>Delete</button>
5	Summer10	10	2023-07-10	zhai	No	<button>Update</button> <button>Delete</button>

< 1 2 3 >

Add successfully

Store Backstage

Web Store

Dashboard

Category

Order

Product

User

Coupon

Toggle Sidebar

Search Xu User

Add coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
1	SALE20	200	2023-05-31	Xu	No	<button>Update</button> <button>Delete</button>
2	NewYear25	25	2023-06-15	zhai	No	<button>Update</button> <button>Delete</button>
3	Valetine20	20	2023-06-30	zheng	No	<button>Update</button> <button>Delete</button>
4	SALE30	30	2023-06-30	Xu	No	<button>Update</button> <button>Delete</button>
5	Summer10	10	2023-07-10	zhai	No	<button>Update</button> <button>Delete</button>

< 1 2 3 >

Update coupon

Store Backstage

Web Store

Dashboard

Category

Order

Product

User

Coupon

Back to HOME

Toggle Sidebar

Add coupon

Update Coupon Information

Discount: 20

User: 1

Expiration Date: 2023/05/31

Voucher Code: SALE20

Update Coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
1	SALE20	20	2023-05-31	Xu	No	<button>Update</button> <button>Delete</button>
2	NewYear25	25	2023-06-15	zhai	No	<button>Update</button> <button>Delete</button>
3	Valetine20	20	2023-06-30	zheng	No	<button>Update</button> <button>Delete</button>
4	SALE30	30	2023-06-30	Xu	No	<button>Update</button> <button>Delete</button>
5	Summer10	10	2023-07-10	zhai	No	<button>Update</button> <button>Delete</button>

< 1 2 3 >

Update successfully

Coupon information updated successfully!

Store Backstage

Web Store

Dashboard

Category

Order

Product

User

Coupon

Toggle Sidebar

Add coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
1	SALE20	20	2023-05-31	Xu	No	<button>Update</button> <button>Delete</button>
2	NewYear25	25	2023-06-15	zhai	No	<button>Update</button> <button>Delete</button>
3	Valetine20	20	2023-06-30	zheng	No	<button>Update</button> <button>Delete</button>
4	SALE30	30	2023-06-30	Xu	No	<button>Update</button> <button>Delete</button>
5	Summer10	10	2023-07-10	zhai	No	<button>Update</button> <button>Delete</button>

< 1 2 3 >

Delete coupon

CAN302 DEMO

Dummy Store

Toggle Sidebar

Search Name User

Add coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
11	Christmas				0	Update Delete
12	Vacation15				0	Update Delete

Are you sure to delete this coupon?

[取消](#) [好](#)

< 1 2 3 >

Back to HOME

Delete failed

Delete Failed!

Store Backstage

Web Store

Toggle Sidebar

Search Xu User

Add coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
1	SALE20	200	2023-05-31	Xu	No	Update Delete
2	NewYear25	25	2023-06-15	zhai	No	Update Delete
3	Valetine20	20	2023-06-30	zheng	No	Update Delete
4	SALE30	30	2023-06-30	Xu	No	Update Delete
5	Summer10	10	2023-07-10	zhai	No	Update Delete

< 1 2 3 >

Delete successfully

Store Backstage

Web Store

DashBoard

Category

Order

Product

User

Coupon

Delete Successfully!

Toggle Sidebar

Q Xu

Add coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
1	SALE20	200	2023-05-31	Xu	No	Update Delete
2	NewYear25	25	2023-06-15	zhai	No	Update Delete
3	Valetine20	20	2023-06-30	zheng	No	Update Delete
4	SALE30	30	2023-06-30	Xu	No	Update Delete
5	Summer10	10	2023-07-10	zhai	No	Update Delete

< 1 2 3 >

Paging

CAN302 DEMO

Dummy Store

DashBoard

Category

Order

Product

User

Coupon

Back to HOME

Toggle Sidebar

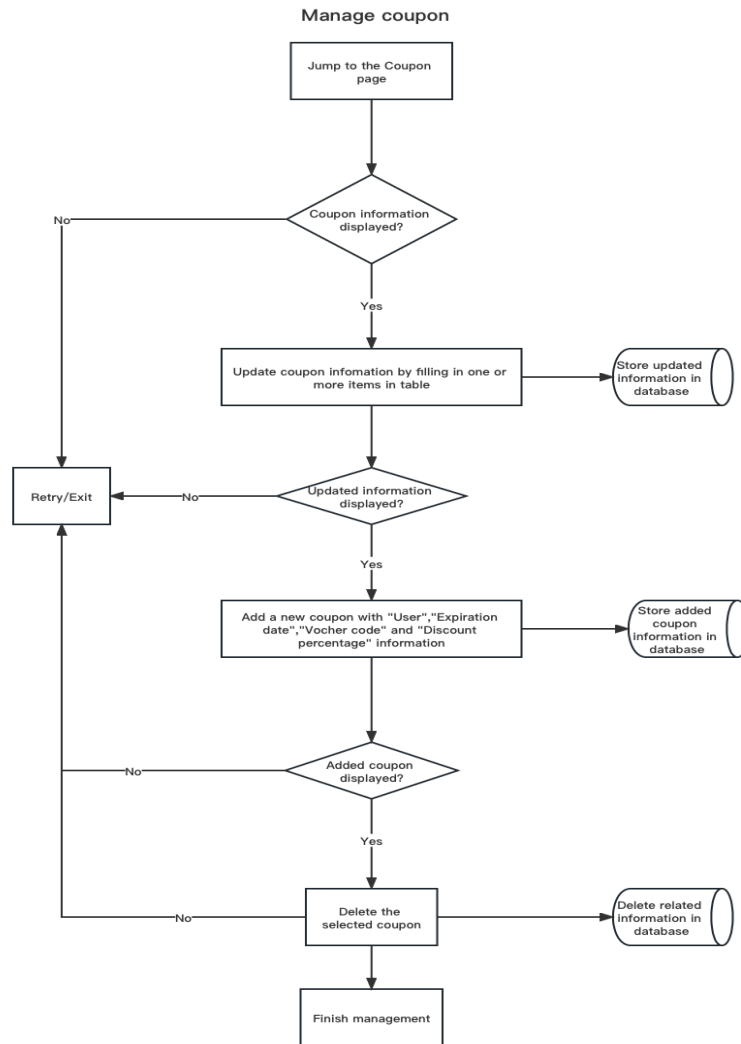
Q Name

Add coupon

ID	Voucher	Discount percentage	Expiration date	User	isUsed	Option
6	Summer20	20	2023-06-30	2	0	Update Delete
7	618618	20	2023-07-31	2	0	Update Delete
8	SALE20	25	2023-07-31	2	0	Update Delete
9	BlackFriday30	30	2023-12-10	1	0	Update Delete
10	SALE20	20	2023-08-31	2	0	Update Delete

< 1 2 3 >

6.2 LLD of Coupon



The basic workflow of coupon management:

When the admin jumps from the dashboard or other page to the Coupon page, the coupon information should be displayed clearly. If the coupon content fails to be displayed, the admin could retry or exit from the system. When the coupon information is displayed as expected, admin may update the existing content by filling in one or more items in the pop-up window. The updated information is stored in the database. If the newly updated information isn't display in the page, the admin could retry or exit from the system.

The admin clicks the "Add coupon" button and fill in the required information. The received data would be stored into database. If the new coupon is not displayed in the page, the admin could retry or exit from the system.

The admin clicks the “Delete” button in the selected coupon column, the related data should be deleted from the database. And the selected coupon should be removed from the page.

6.3 Test Coupon

Summary	Steps	Expected result	Functionality	Actual result
Ensure the Coupon page is properly laid out and rendered	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click on the “Coupon” in the sidebar	The page is properly laid out according to the design	Coupon	Pass
Ensure the information of coupon can be modified	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click on the “Coupon” in the sidebar 3. Click on the “Update” button in the right-hand side of the coupon 4. Modify the coupon information in the pop-up window 5. Click on the “Update Coupon” button in the bottom of the pop-up window	The updated information is displayed as expected. There is a green sign on the top of the page saying, “Coupon information updated successfully!”	Update function in coupon page	Pass
Ensure the input of “discount” must be numbers	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click on the “Coupon” in the sidebar 3. Click on the “Update” button in the right-hand side of the coupon 4. Modify the coupon information in the pop-up window 5. Fill in the blank of “Discount” with string “34jgc”, which is not just numbers. 6. Click on the “Update Coupon” button in the bottom of the pop-up window	There would be a notification saying the input should be numeric.	Update/Add function in coupon	Pass
Ensure the input of “discount” must be a positive number smaller than 100	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click on the “Coupon” in the sidebar 3. Click on the “Update” button in the right-hand side of the coupon 4. Modify the coupon information in the pop-up window	There would be a notification saying the input should be a number between 0-100.	Update/Add function in coupon page	Fail

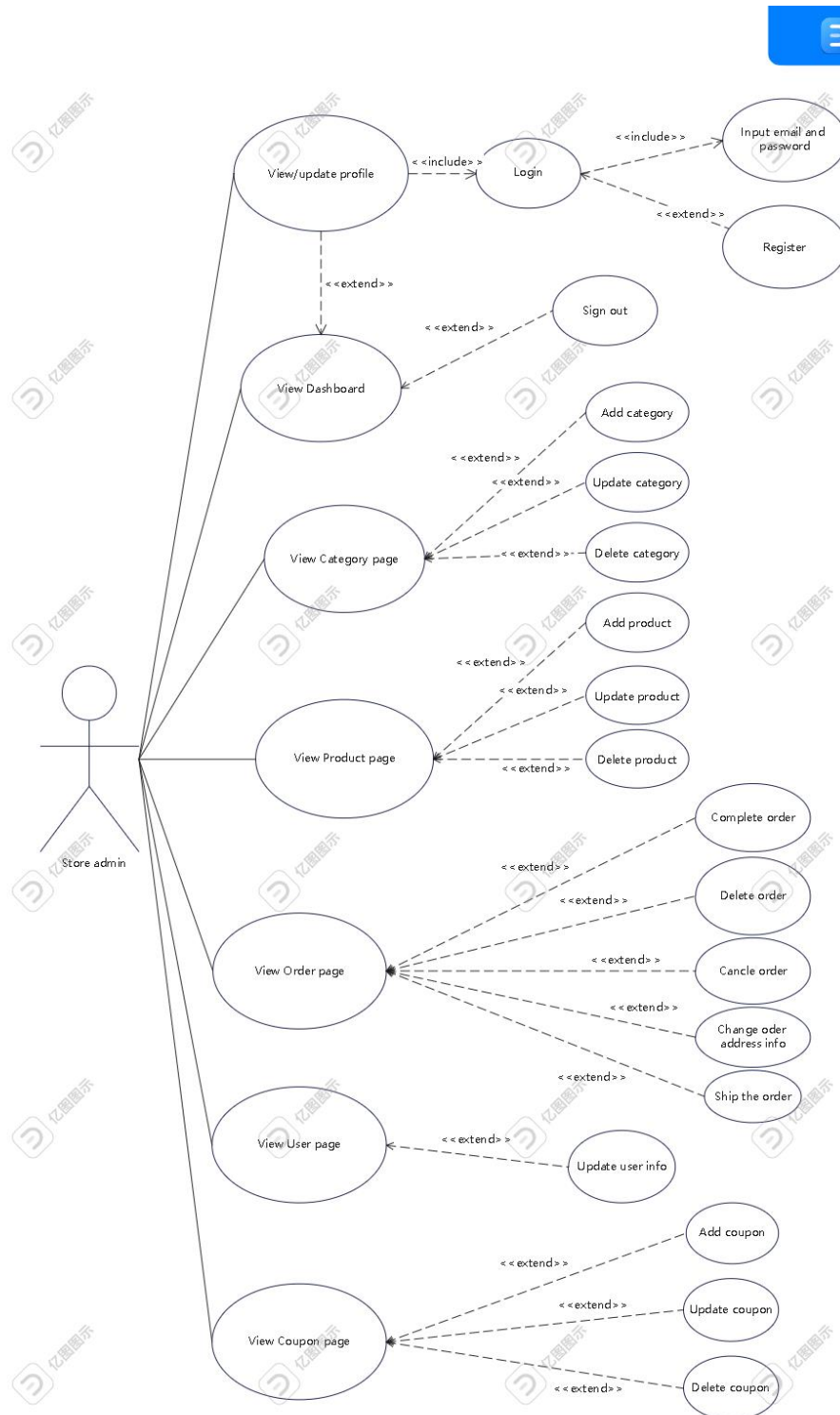
	5. Fill in the blank of “Discount” with a number larger than 100, e.g.,300 6. Click on the “Update Coupon” button in the bottom of the pop-up window			
Ensure that “Add coupon” action can only be achieved when the required information is all filled in	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click on the “Coupon” in the sidebar 3. Click on the “Add coupon” button in the top left of the page 4. Fill in the required information in the pop-up window 5. Leave the “Voucher code” blank 6. Click on the “Add coupon” button in the bottom of the pop-up window	There would be a red alert on the top of the page saying that “Failed to add coupon, please fill in all the blanks!”	Add function in coupon page	Pass
Ensure the “delete” function works well	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click on the “Coupon” in the sidebar 3. Click on the “Delete” button on the right-hand side of the coupon 4. Click “Yes” when the pop-up window asks “Are you sure to delete this coupon?”	The selected coupon is deleted from the page.	Delete function in coupon page	Pass
Ensure the “paging” function works well	1. Navigate to http://127.0.0.1/can302/ass2/index.php 2. Click on the “Coupon” in the sidebar 3. Choose the last page in the pagination bar on the bottom of the page 4. (There are 11 original coupons, and each page can only display five coupons, thus only one coupon is displayed in the last page) Delete the only coupon in the last page	There would be one page less in the pagination bar, and no blank page.	Paging function in coupon page	Pass

Study and Improvement from failed test:

In the failed test case, the input of “discount” can be set to a number over 100, which is unfeasible in practice.

Hence, I used max() function and min() function to restrict the input value. **After the improvement, the bug is fixed.**

7. Use case diagram



8. Database Design and ER diagram

8.1 List of tables

user	store user information
order	store order information placed by the users
product	store product information
category	store product categories
order_detail	store products information in each order
coupon	store coupon information
user_coupon	store the relationship between user and coupon

8.2 Detailed structure of each table

user

user_id (primary key)
name
email
password
payment_method
shipping_address
isAdmin

order

order_id (primary key)
date
status
payment_method
shipping_address
user_id (foreign key(`user_id`) references `user` (`user_id`))

product

product_id (primary key)
name
description
price
image
stock
category_id (foreign key(`category_id`) references `category` (`category_id`))

category

catrgory_id (primary key)
name

order_detail

order_id (foreign key(`order_id`) references `order` (`order_id`))
product_id (foreign key(`product_id`) references `product` (`product_id`))
amount

coupon

coupon_id (primary key)
code
discount_percentage
expiration_date
isUsed

user_coupon

user_id (foreign key(`user_id`) references `user` (`user_id`))
coupon_id (foreign key(`coupon_id`) references `coupon` (`coupon_id`))

8.3 ER diagram

