

## **CPSC 471 Project Final Report**

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## **Abstract**

Our project uses to build a database and use SQL quires to design its functions, and we use HTML, PHP and CSS to build a website and connect with our database.

Our website is used to shopping online, a user can search for products, buy products, put that into Wishlist, add money into an account and other basic functions. Also, our program has another part for administrators. They can update the database for products or users. For example, the price of a product or the balance of a user.

## **Introduction**

At the beginning, we decided to create a website that can help users to find the promotion or the price of a product. However, that is not convenient for users. So, we changed that into creating a website that can let the user buy products. The purpose for our database is to help users to buy products more convenient. In our database, we contain several entities, such as client, product, and brand. We store the information of products into the product table. If users want to find a product, they only need to input the keywords and get the result. In the database, we will search the product table, and get the result. Also, users can search by brand name, which is the same principle as search the product name.

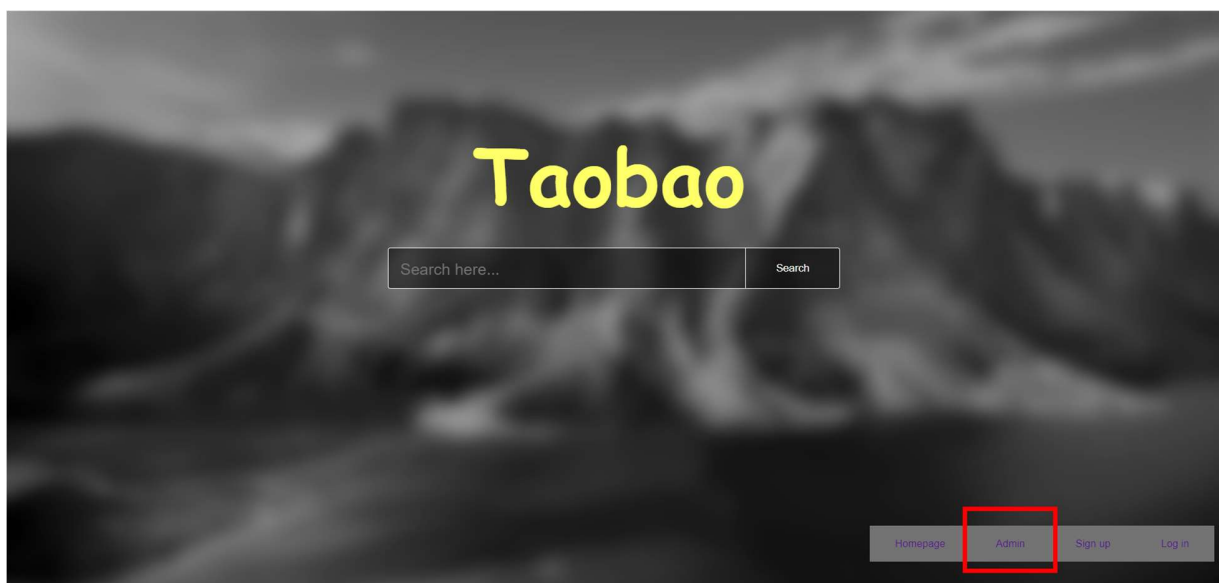
Generally, we do searching through the database and update the data if necessary. Moreover, these data that stored in the database will check regularly whether is there any update or not by administrators. Also, they will update any new information on time. Thus, users will easily check the newest version for a product.

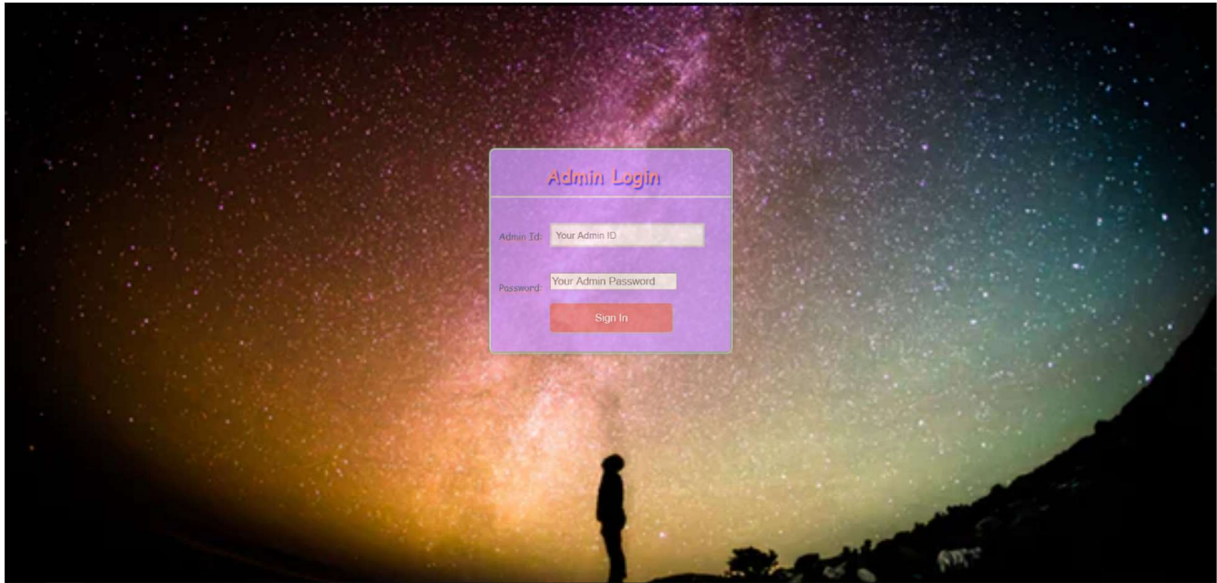
## Project design section:

In this website, we have two types of user, which have admin who control and manage the website, and client who search and buy things from the website.

### For Admin side,

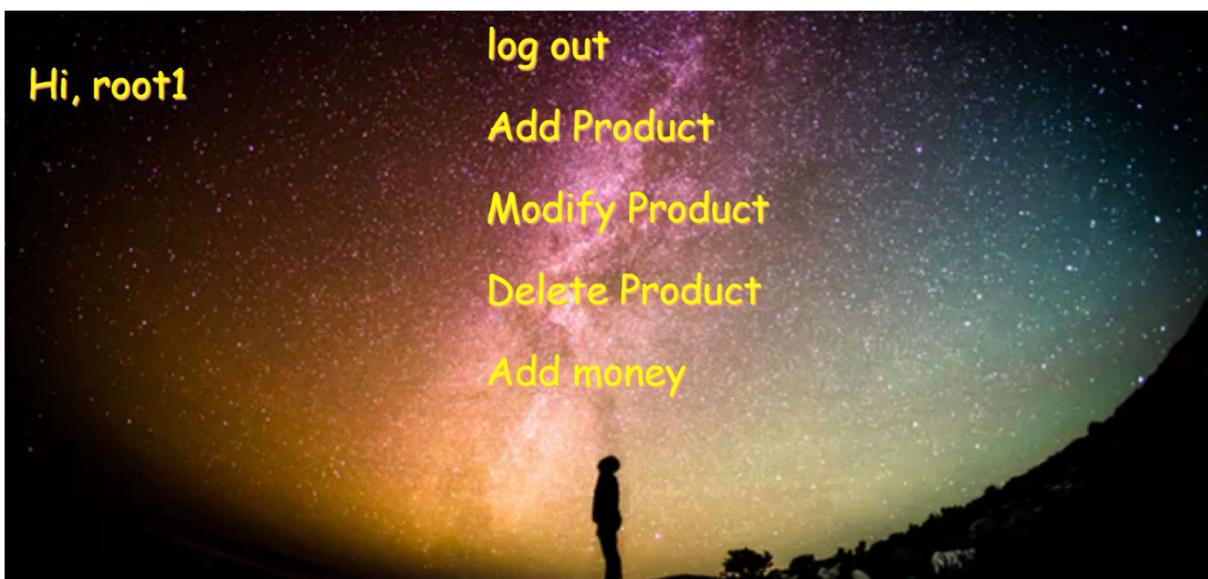
In main page, we can click on 'Admin' button to go into 'admin login' page.



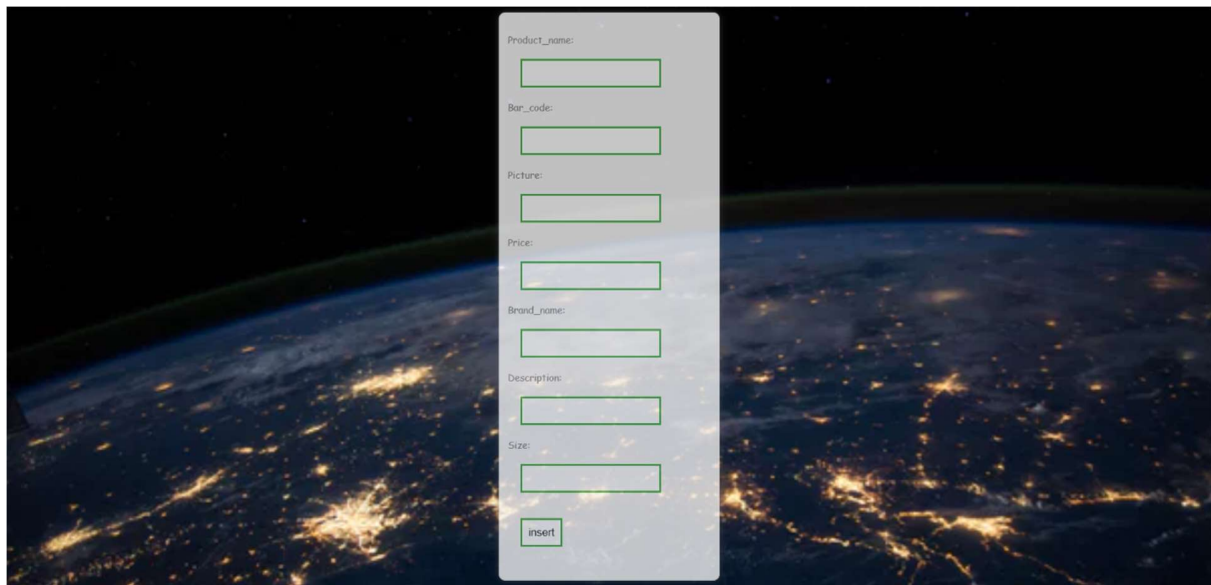


In this page, it will collect user input id and search it up in the admin database, if there have match id, then it will compare input password and the right password.

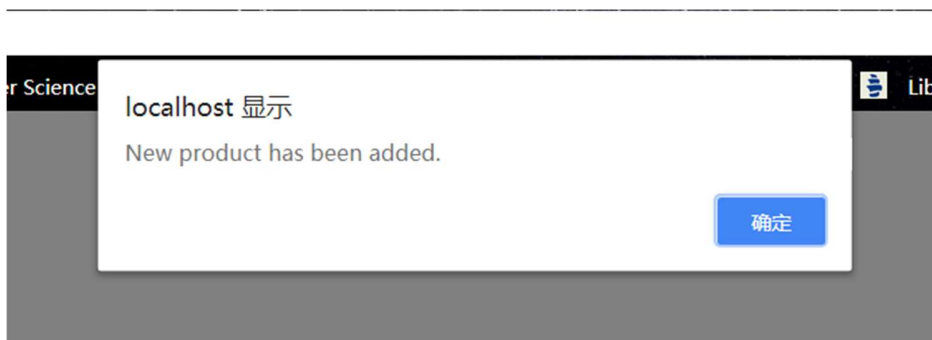
Once you are log in, you can see your admin id show up on the upper left corner, and it show the three thing you can do, which is 'Add product', 'Modify product', 'Delete product' and 'Add money'.



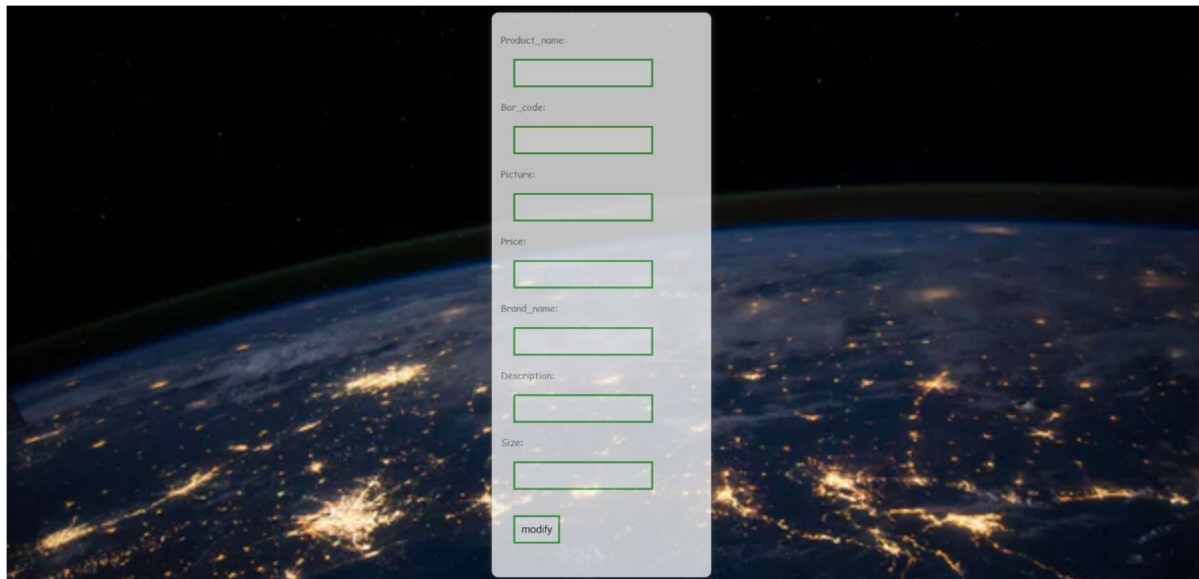
For 'Add product' function, after filling in all the information for this product, then click 'insert' to submit.



It will have notification indicate that new product has been added. In this page, all input data will be collected to database in order to create a new product.



For 'Modify product' function, it basically filling all the information you want to change for a product, and it is based on 'Bar code', so it will search up the product by its bar code then update new information.



Product\_name:

Bar\_code:

Picture:

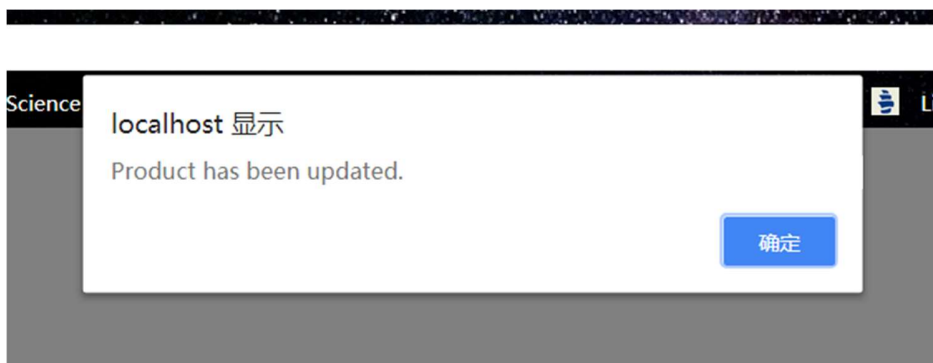
Price:

Brand\_name:

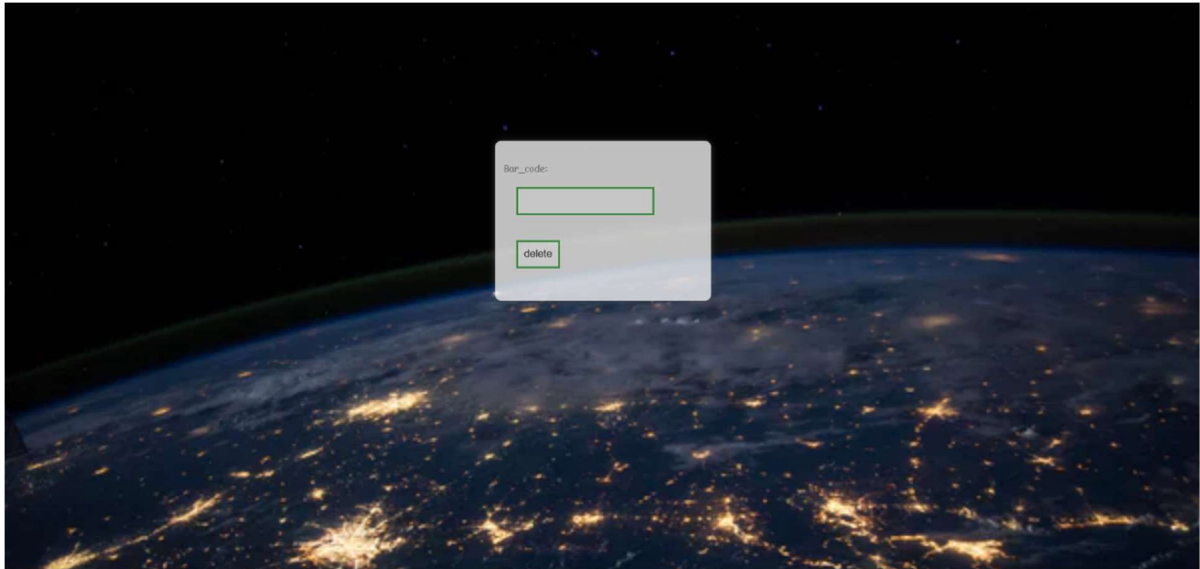
Description:

Size:

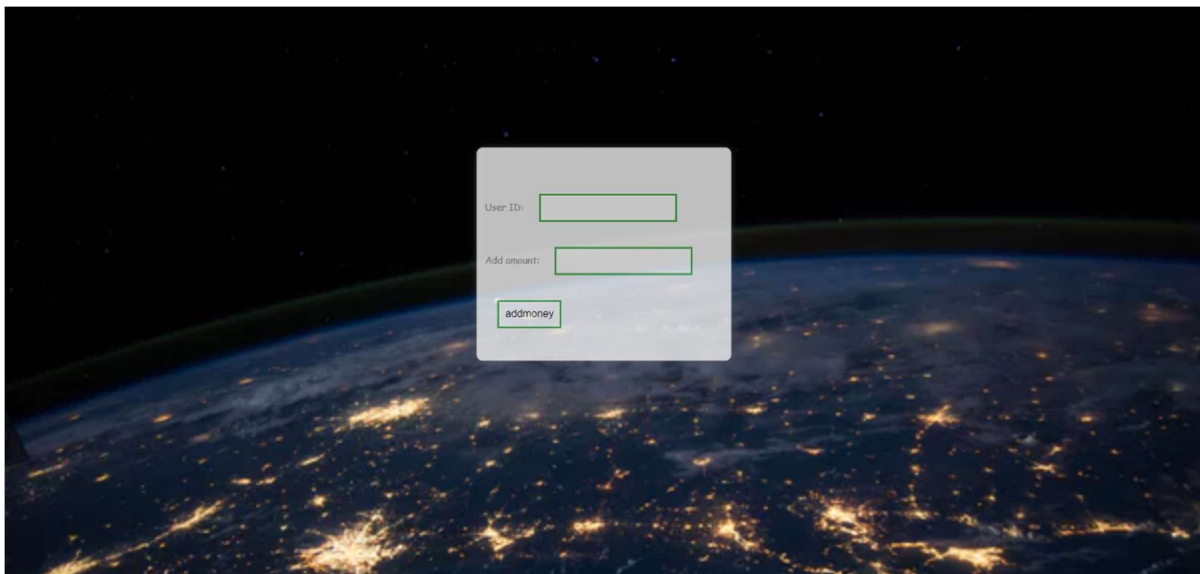
It will have notification indicate that product information has been updated.



For 'Delete product' function, just simply enter the bar code for the product you want to delete. Website will take this bar code and search it up in 'Product' data base to find the match product and delete it.



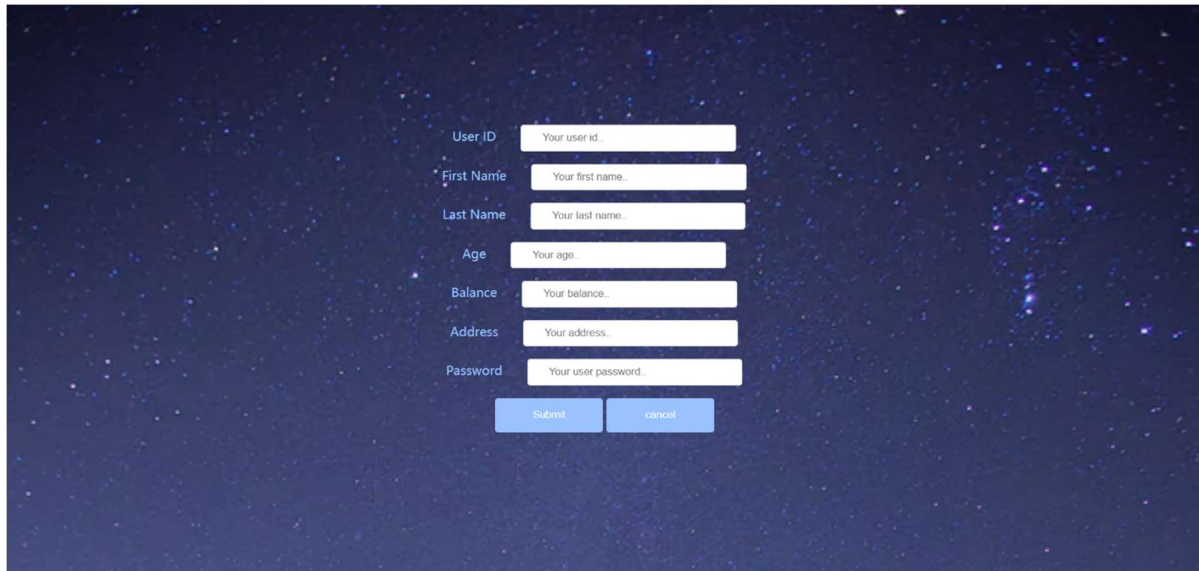
For 'Add money' function, it needs user id and amount to indicate where and how much are going to which user.



**Now for the client side,**



Client can click on the 'Sign up' button on the lower right corner to create a new account, fill up all information



User ID

First Name

Last Name

Age

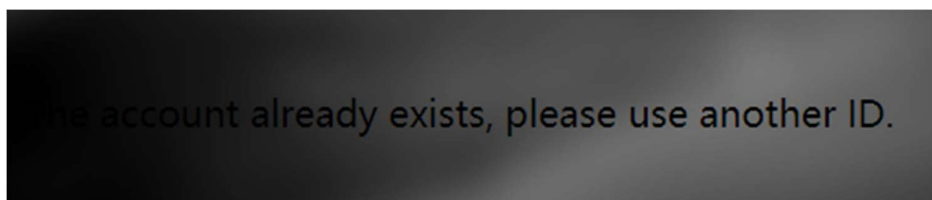
Balance

Address

Password

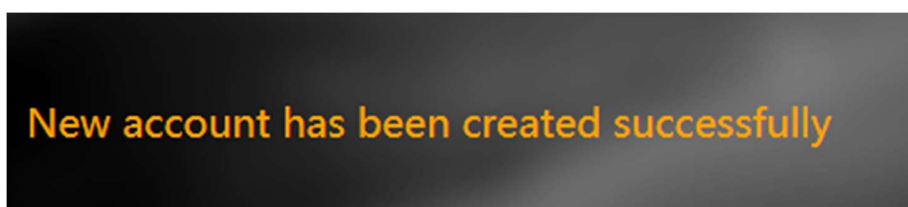
In this page, all user input data will be collect in order to create a new client account.

If the id you just filled in is already exist in the database, when you click 'Submit', it will show fail notification to indicate that account is already exists.



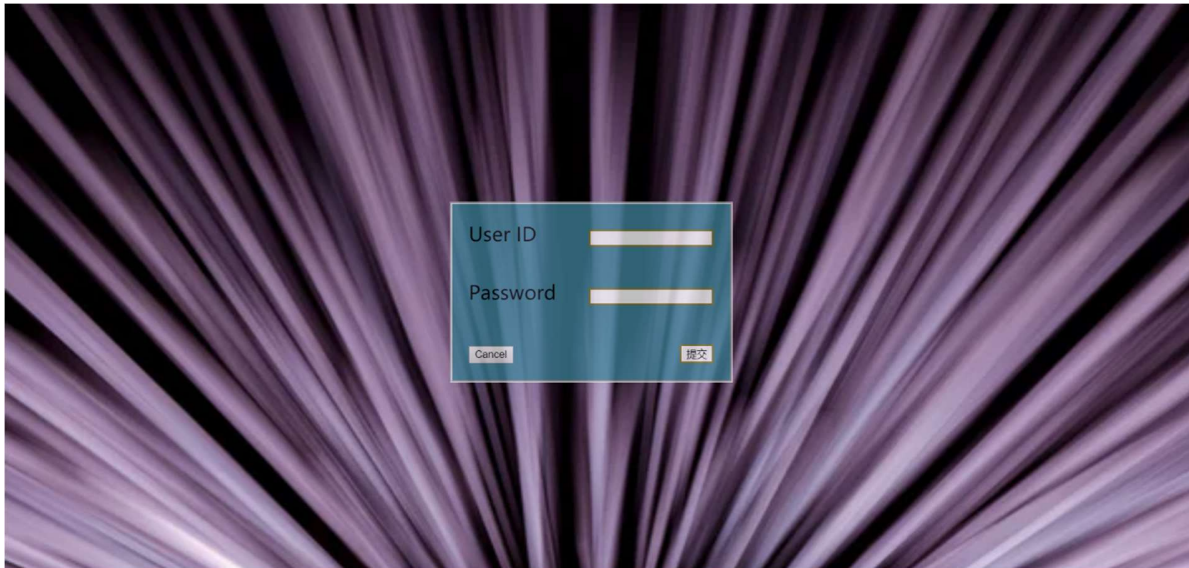
The account already exists, please use another ID.

Else, it will show success notification,

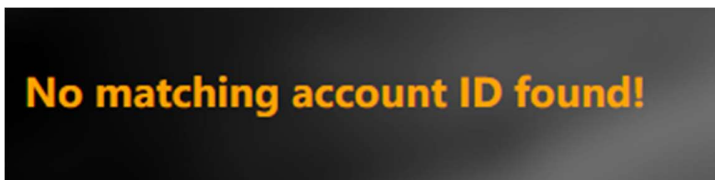


New account has been created successfully

For 'Login' function, in the login page,



If you enter a user id that is not in the database (not exist user id), the website will show error message to indicate that no match account.

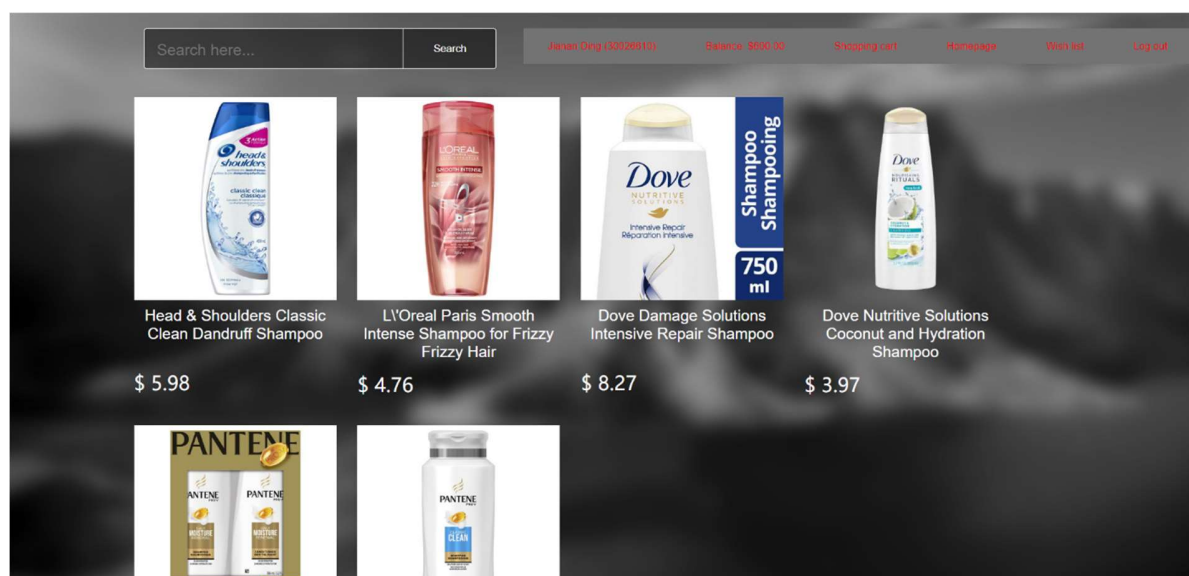


If you enter a exist user id with a wrong password, you will get error message on wrong password.

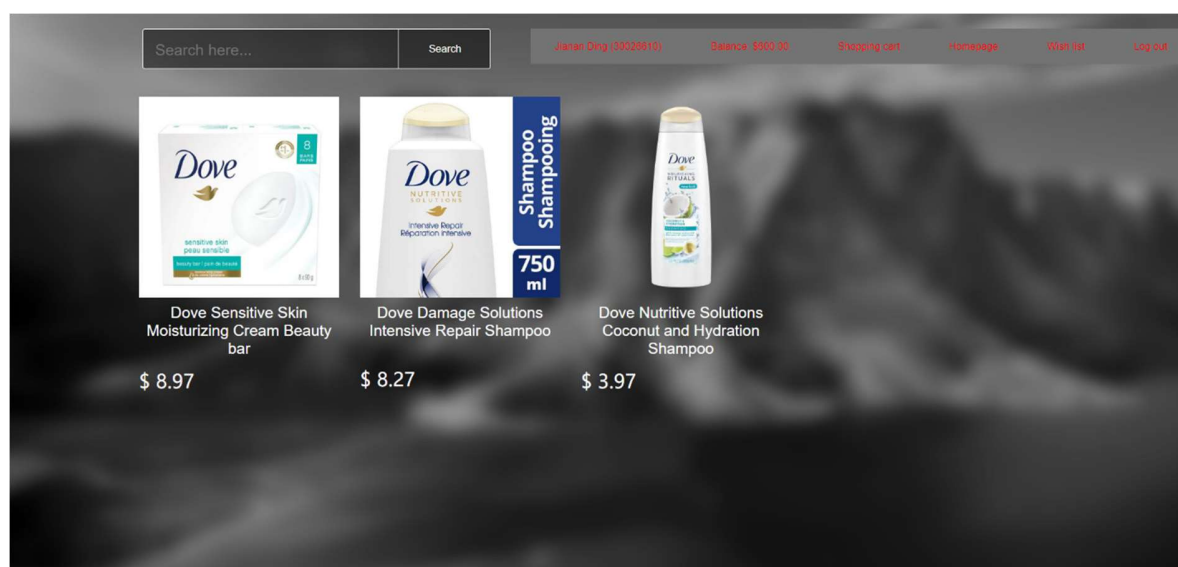


If you successfully logged in, you can see that your name, user id and balance are at the lower right corner.

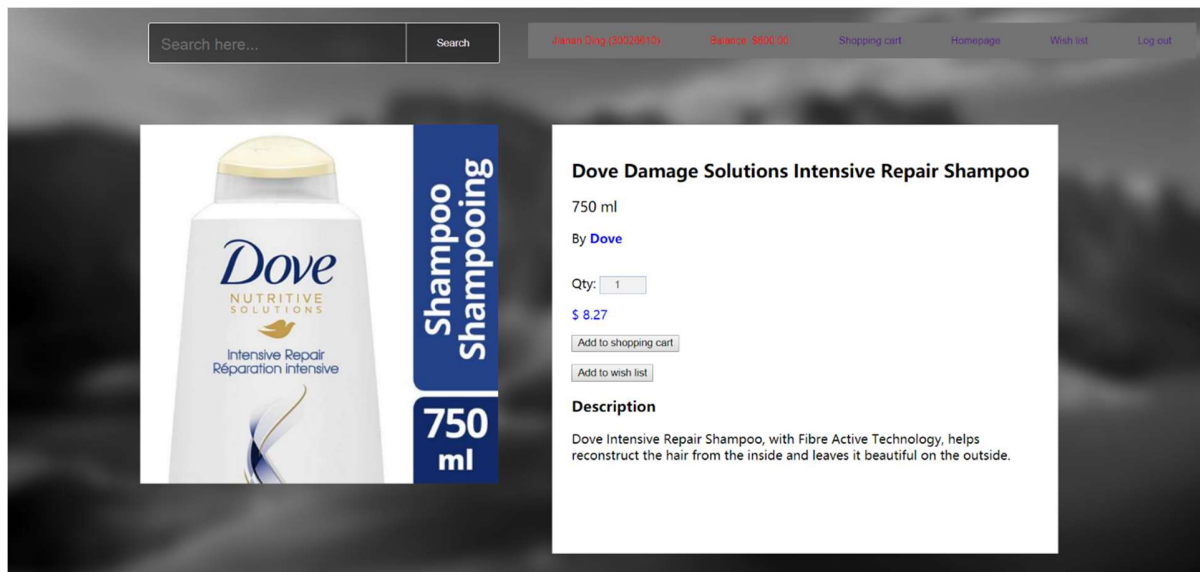
Client can search product by brand name, key word, the following picture is result by searching keyword ‘shampoo’,



Next one is searching by brand name ‘Dove’,



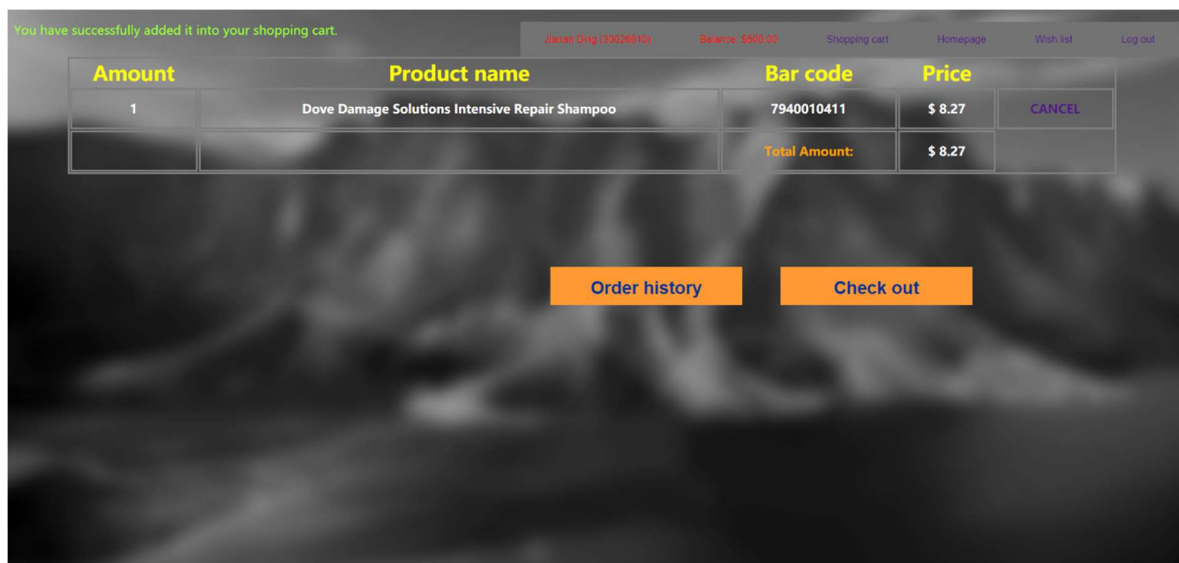
When client click on one item, the website will jump to the detail product page,



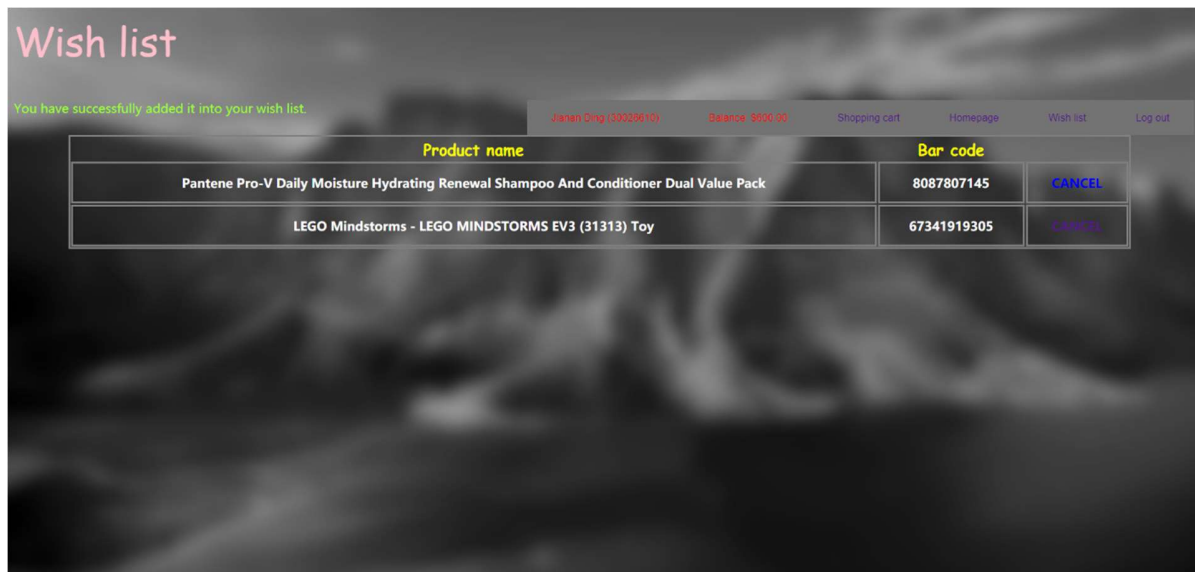
In this page, website will get all product data base on which product picture client click on, product data such as product name, size, brand, price and description.

You can choose any amount and choose wheatear 'Add to shopping cart' or 'Add to wish list'.

If client choose 'Add to shopping cart', it will jump to shopping cart web page as shown below,



If client choose ‘Add to wish list’, it will jump to wish list web page as shown below,



Both ‘Cancel’ button are for client to remove item from the list.

In shopping cart, when you click on ‘Check out’ button, if your balance is less than the total amount, it will show message about not enough balance on the top left corner; if you have enough balance, then website will clean the shopping cart and generate a new order history as shown below.

-not enough balance case

You do not have enough money!

Janan Ding (1301208110)

Balance: \$414.85

Shopping cart

Homepage

Wish list

Log out

Amount	Product name	Bar code	Price	
1	LEGO Mindstorms - LEGO MINDSTORMS EV3 (31313) Toy	67341919305	\$ 399.86	CANCEL
1	LEGO Ideas LEGO NASA Apollo Saturn V (21309) Toy	67341927715	\$ 149.99	CANCEL
		Total Amount:	\$ 549.85	

Order history

Check out

-enough balance case

Janan Ding (1301208110)

Balance: \$999.89

Shopping cart

Homepage

Wish list

Log out

Amount	Product name	Bar code	Price	
1	LEGO Mindstorms - LEGO MINDSTORMS EV3 (31313) Toy	67341919305	\$ 399.86	CANCEL
1	LEGO Ideas LEGO NASA Apollo Saturn V (21309) Toy	67341927715	\$ 149.99	CANCEL
		Total Amount:	\$ 549.85	

Order history

Check out



Jeran Ding (30228910)

Balance: \$126.14

Shopping cart

Homepage

Wish list

Log out

Amount	Product name	Bar code	Price
<div>Order history</div> <div>Check out</div> <div>Updated balance</div> <div>Empty shopping cart</div>			

My Order History

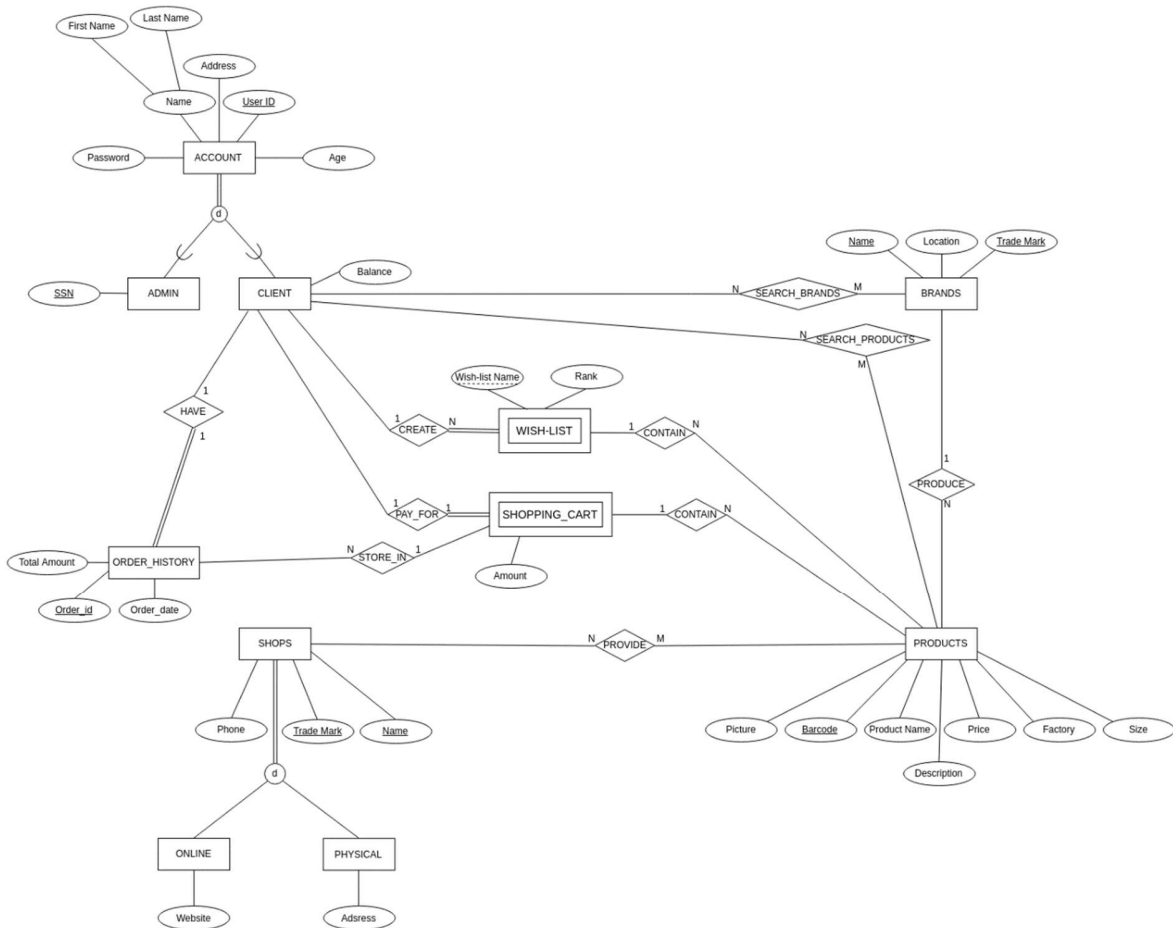
Search for orders..

OrderID: #1 Total amount: \$74.70 Time: 07/12/2018
OrderID: #2 Total amount: \$8.97 Time: 07/12/2018
OrderID: #3 Total amount: \$8.97 Time: 07/12/2018
OrderID: #4 Total amount: \$185.17 Time: 13/12/2018
OrderID: #5 Total amount: \$549.85 Time: 14/12/2018

New order history

Homepage

## ER Diagram:

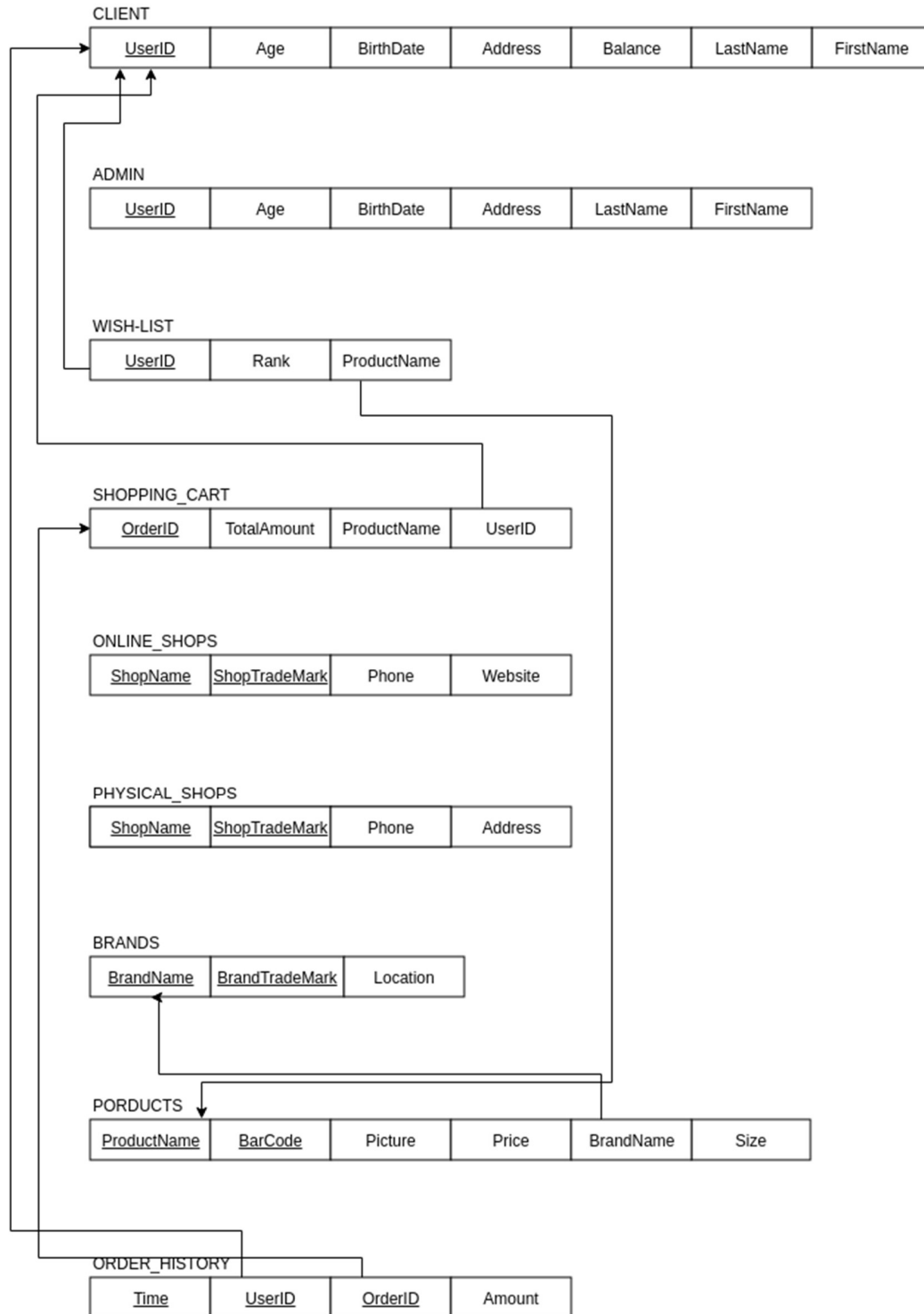


### Assumption:

1. Clients can search many kinds of brands and brands can be searched by clients at the same time.
2. Clients can search many kinds of products and products can be searched by clients at the same time.
3. A client can create multiple wish-lists and a wish-list can be only built by a client.
4. Clients only have one shopping cart, and they will pay for the items inside.
5. A Brand can produce many products, but one product only can be produced by a brand.
6. A shop can provide many products and many products can be only provided by different shops.
7. **Every client have** one order-history-table which contain all the completed orders.
8. Once the client pay for the shopping-cart's items, the order id and total amount will be stored in the order-history-table.



## Implementation section:



The unusual decisions are we make Order\_History, Shopping\_Cart table have multiple key attributes, so that we can distinguish each client's order history and shopping cart, client can only see their own history and cart.

We use Xampp to connect our database and php file, since it has built in DBMS (phpMyAdmin).

SQL statement:

Admin.php

// add product

```
INSERT INTO products (Product_name, Bar_code, Picture, Price, Brand_name, Description, Size)
```

```
VALUES (pname, barCode, picture, price, bname, description, size)
```

// modify product

```
UPDATE products SET Product_name=pname, Bar_code=barCode, Picture=picture,
```

```
Price=price, Brand_name=bname, Description=description, Size=size
```

```
WHERE Bar_code=barCode
```

// delete product

```
DELETE FROM products WHERE Bar_code=barCode
```

// add money

```
SELECT * FROM client WHERE User_id=user_id_number
```

```
UPDATE client SET Balance=balance WHERE User_id=user_id_number
```

// login

```
SELECT * FROM admin WHERE Admin_id=admin_id
```

Header.php

// create account

```
SELECT * FROM client WHERE User_id=id
```

```
INSERT INTO client(User_id, First_name, Last_name, Age, Balance, Address, Password)
```

```
VALUES (id, firstn, lastn, age, bala, addr, pwd)
```

// user login

```
SELECT * FROM client WHERE User_id=log_id
```

```
SELECT * FROM client WHERE User_id=userid
```

OrderHistory.php

// history

```
SELECT * FROM order_history WHERE User_id=userid
```

Product\_page.php

// product info

```
SELECT * FROM products WHERE Bar_code=item_bar_code
```

Wish\_list.php

// cancel button

```
DELETE FROM wish_list
```

```
WHERE Bar_code = cancel_id
```

// add product

```
SELECT * FROM products WHERE Bar_code =item_bar_code
```

```
INSERT INTO wish_list(Product_name, Bar_code, User_id)
```

```
VALUES (Product_name, item_bar_code,userid)
```

// show list

SELECT \*

FROM products as p, wish\_list as wh

WHERE p.Bar\_code = wh.Bar\_code AND wh.User\_id = userid

View\_product.php

// get list of product

SELECT \* FROM products WHERE Product\_name LIKE '%keyword%'

Shopping\_cart.php

// cancel button

DELETE FROM shopping\_cart

WHERE Bar\_code = cancel\_id

// add product to shopping cart

SELECT \* FROM products WHERE Bar\_code = item\_bar\_code

INSERT INTO shopping\_cart(Amount, Product\_name, Bar\_code, User\_id, Price)

```
VALUES (qty, Product_name, item_bar_code, temp_userid, Price)
```

```
// check out
```

```
SELECT * FROM client WHERE User_id = userid
```

```
DELETE FROM shopping_cart WHERE User_id=userid
```

```
SELECT MAX(Order_id) AS max FROM order_history WHERE User_id = userid
```

```
INSERT INTO order_history(Order_id, User_id, Order_date, Total_amount)
```

```
VALUES (order_id, userid, order_date, total)
```

```
UPDATE client SET Balance = balance WHERE User_id=userid
```

```
SELECT *
```

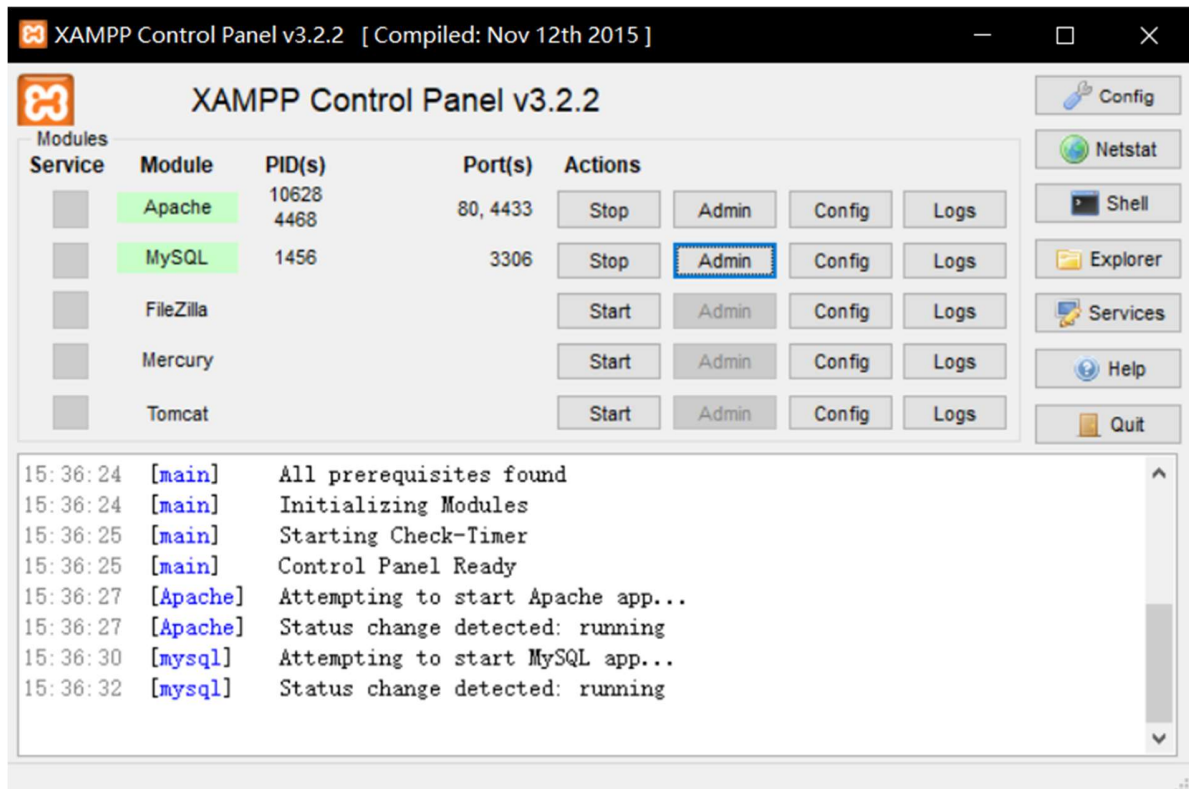
```
FROM products as p, shopping_cart as sh
```

```
WHERE p.Bar_code = sh.Bar_code AND sh.User_id = userid
```

## User manual

How to set up?

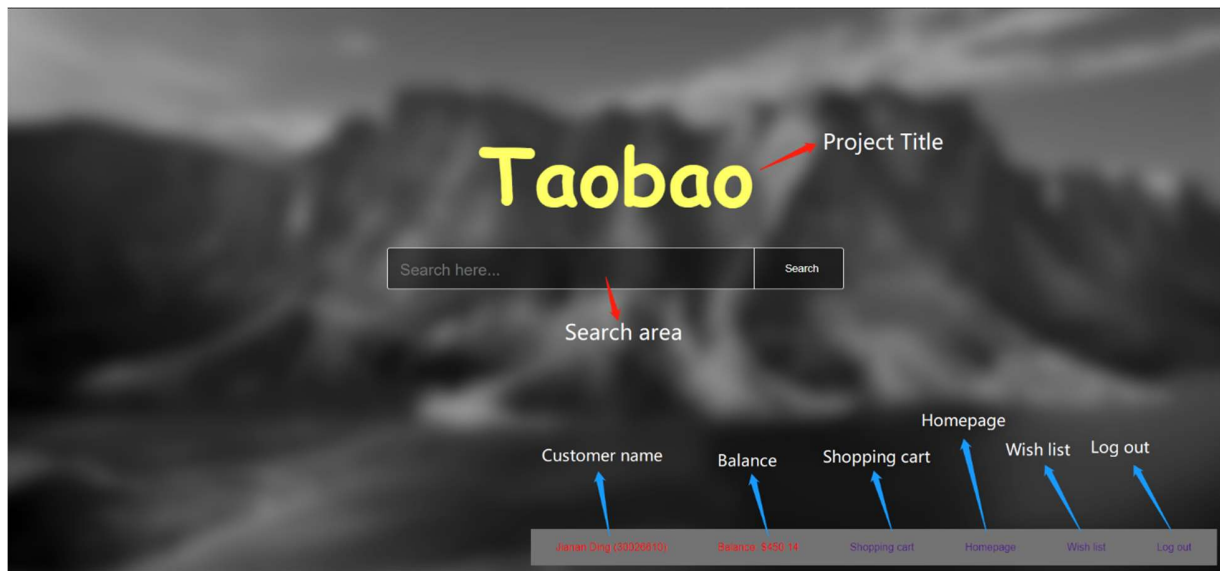
1. Download the software called XAMPP.



2. Do action 'Start' on 'Apache' and 'MySQL'
3. Click the 'Admin' from 'MySQL' to enter the database
4. Click the 'New' on the left to create the new database
5. Import the database we already had
6. Create a folder call 'project09' and move all php file in to this folder
7. Move 'project09' folder into 'htdocs' folder where you install Xampp

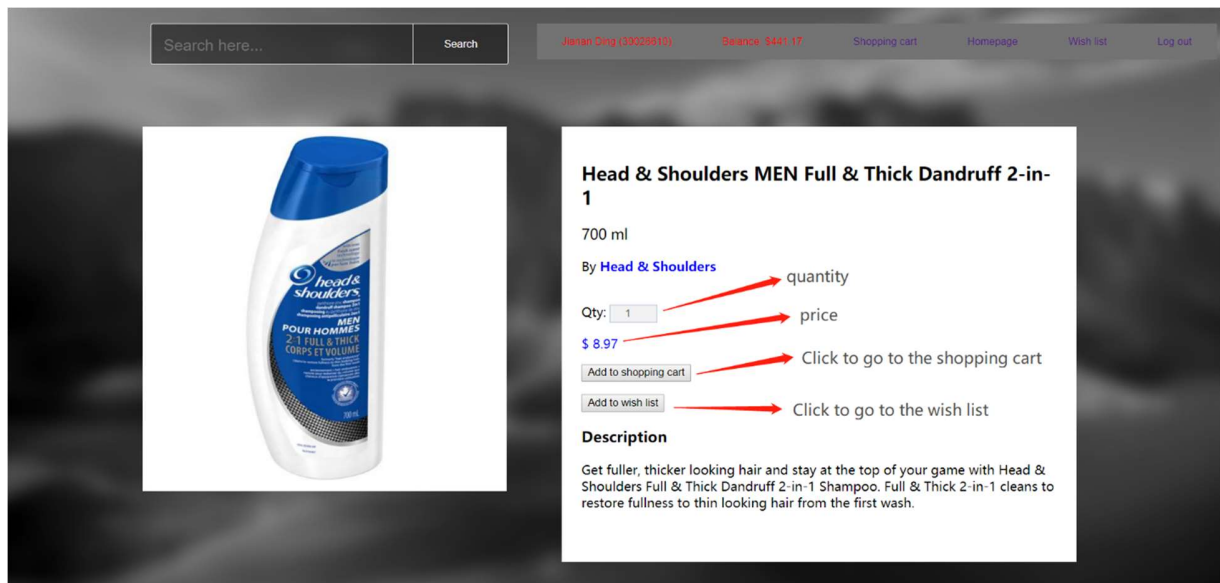
8. Now open an browser, type in 'localhost/project09/search/php' to view our website

How to buy things as a client?

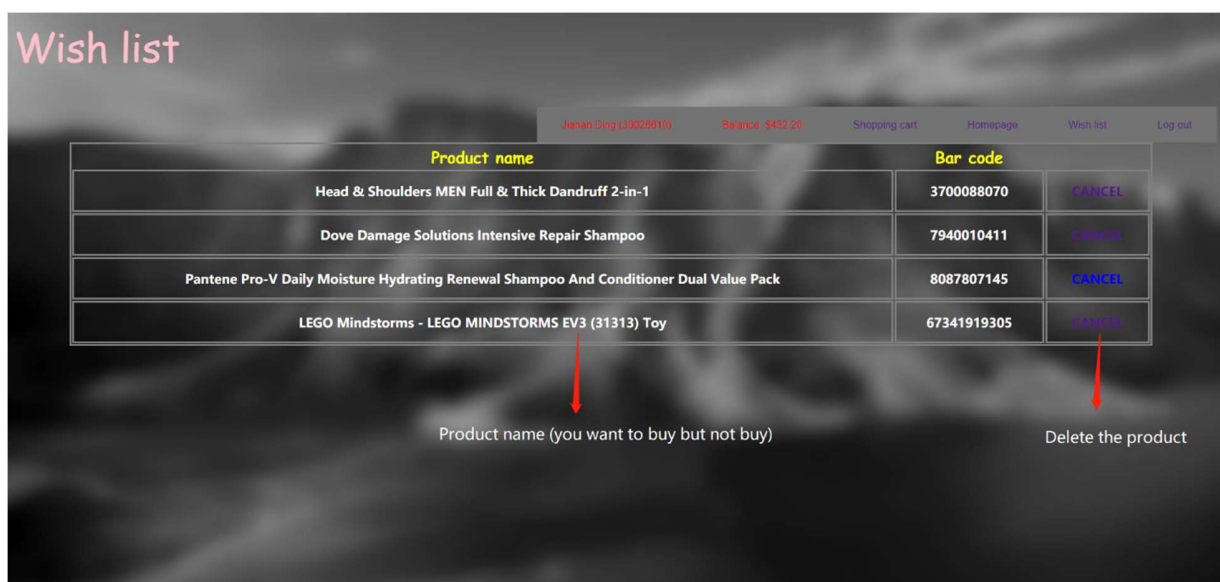


This is the first homepage and it is also the searching products page. Then as the user (client), you can enter the key words about what you want to search in the search area and after that you just need to click the 'search' button.

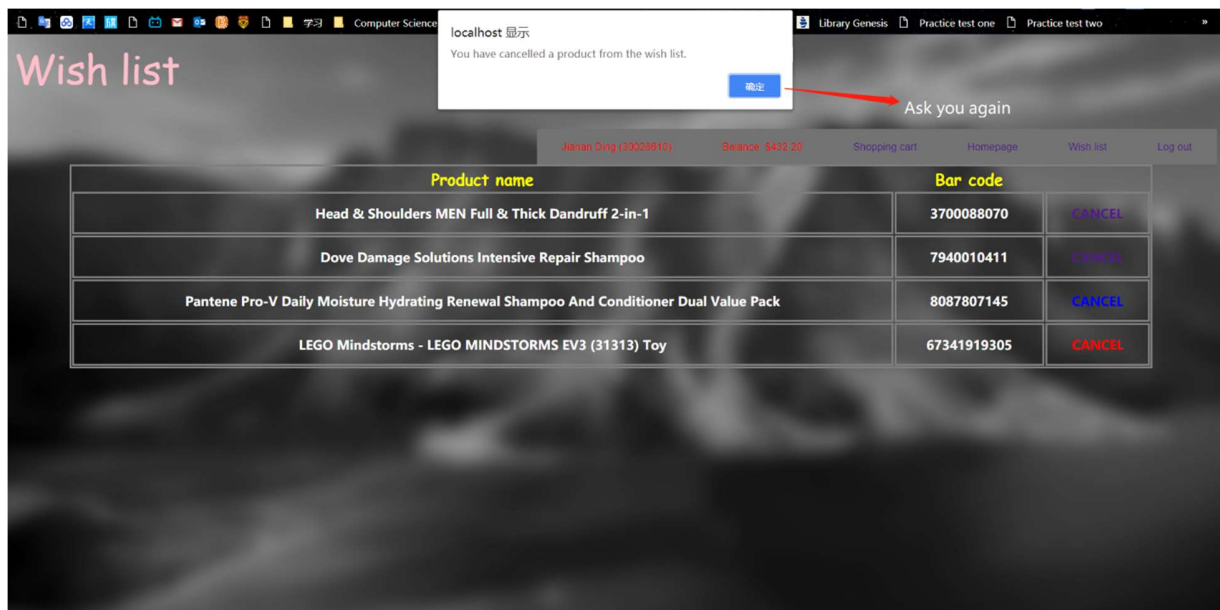




And you can see all of results including the key words that you entered before. At first you can only see the pictures and prices about the products. After you find what you want to buy and you can click the picture of the product then you can see more details about them. Secondly, you will see 'Add to shopping cart' and 'Add to wish list' two buttons and you can also choose the quantity of the product (how many you want) above the price.

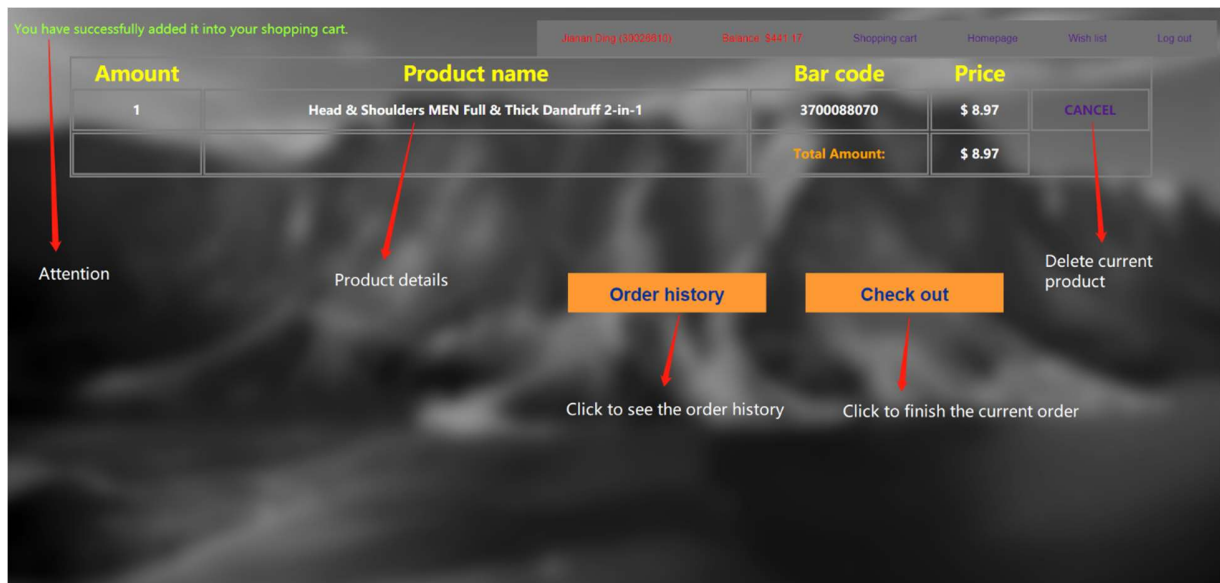


‘Add to wish list’ means that your web page will jump to the wish list page. ‘Add to shopping cart’ means that your web page will jump to the shopping cart page. Both of them include products what you just add and you can see them on the page and you can also delete them if you do not want to buy or record.

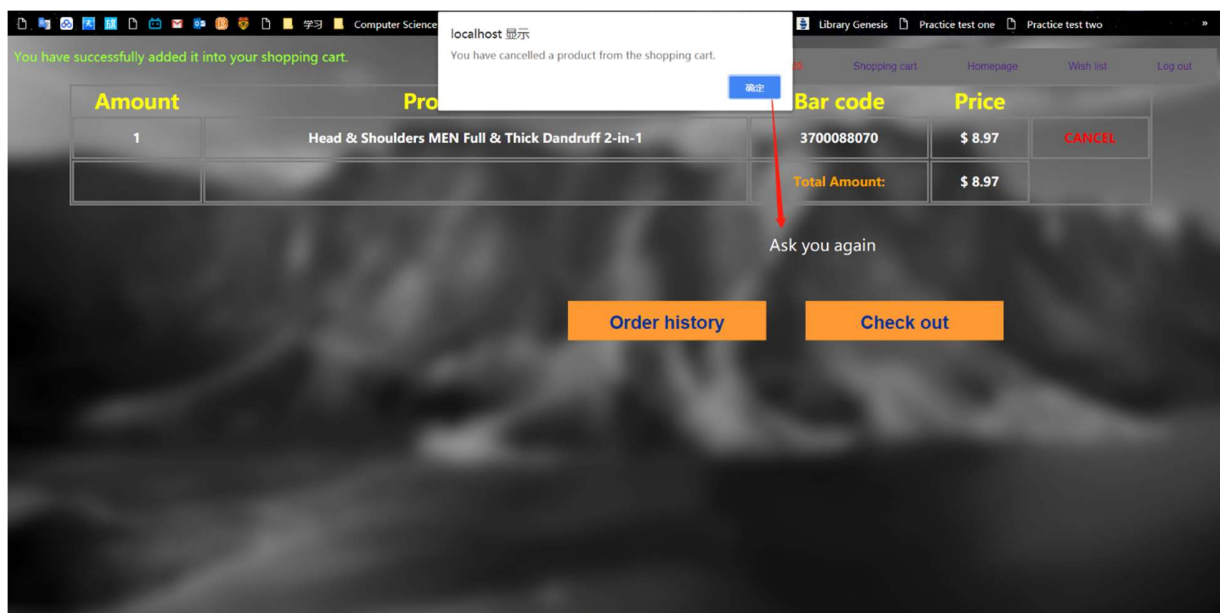


And you will also see the attention to ask you whether you really want to delete it at the top of the web page.

For the wish list, it is just help you to check what you want to buy but you have not bought.



For the shopping cart, you can see the amount, product name, bar code and the price. 'Total Amount' will be shown at the end of the product table. Below the table, you can see two buttons (Order history and Check out).

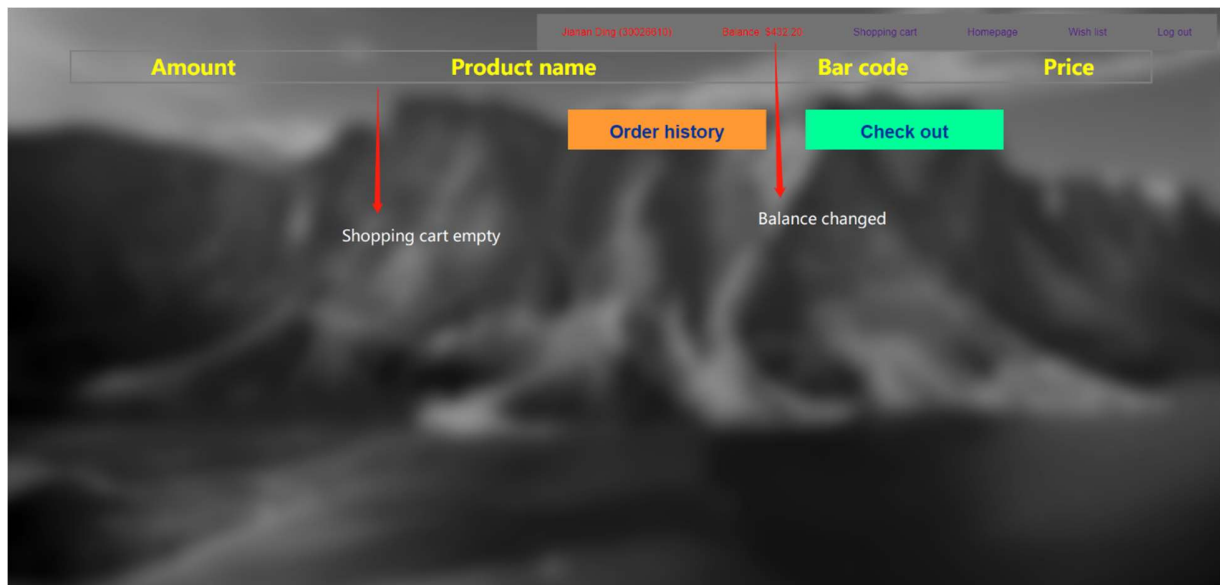


And if there exists something you do not want to buy in the shopping cart, you can click 'CANCEL' button to delete it from your shopping cart and you will also see the attention to ask you whether you really want to delete it at the top of the web page.

The screenshot shows a web interface for 'My Order History'. At the top, there is a search bar with the placeholder text 'Search for orders..' and a label 'Search key words to find order' with a red arrow pointing to it. Below the search bar is a table listing seven orders. Each row contains 'OrderID', 'Total amount', and 'Time'. A red arrow points from the text 'Order history details' to the first row of the table. In the bottom right corner, there is an orange button labeled 'Homepage' with a red arrow pointing to it and the text 'Click to go back to the search page' below it.

OrderID	Total amount	Time
#1	\$74.70	07/12/2018
#2	\$8.97	07/12/2018
#3	\$8.97	07/12/2018
#4	\$185.17	13/12/2018
#5	\$549.85	14/12/2018
#6	\$8.97	14/12/2018
#7	\$8.97	14/12/2018









If you want see the history that you ordered before from our website, you can click 'Order history' and then you can find what you have had the orders and they also show you the time and number. Also, you can search the order history by searching the key words.





















Just need to click 'Check out' if you want to check out, then you can see your balance reduced since it has subtracted the order total amount. And as you see, it will jump back to the shopping cart web page and empty what you ordered. It means that you begin a new order and last order will be added in the order history. But if your balance is not enough to finish checking out, then you cannot finish the trade and you need to add money into your account.

## Sample data



### Admin

+ Options								
↔			Admin_id	Age	Address	Last_name	First_name	Password
<input type="checkbox"/>		 Edit  Copy  Delete	root1	24	3909 avenue de Port-Royal, Bonaventure, Quebec G0...	Thompson	David	root1
<input type="checkbox"/>		 Edit  Copy  Delete	root2	20	2105 A Avenue, Edmonton, Alberta T5J 0K7	Michele	Griego	root2

### Brands

← T →				Brand_name	Brand_trade_mark	Website
<input type="checkbox"/>				Dove	https://commons.wikimedia.org/wiki/File:Dove_logo....	www.dove.com
<input type="checkbox"/>				Funko	https://static1.squarespace.com/static/58ad62e4841...	www.funko.com
<input type="checkbox"/>				Head & Shoulders	https://seeklogo.com/images/H/head-shoulders-logo-...	www.headandshoulders.ca/en-ca
<input type="checkbox"/>				L'Oreal Paris	https://botw-pd.s3.amazonaws.com/styles/logo-thumb...	www.lorealparis.ca/en
<input type="checkbox"/>				LEGO	https://upload.wikimedia.org/wikipedia/commons/thu...	shop.lego.com
<input type="checkbox"/>				Pantene	data:image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAOAA...	www.pantene.ca/en-ca

### Client

+ Options										
<div><div></div><div></div><div></div></div>				User_id	Age	Address	Balance	Last_name	First_name	Password
<input type="checkbox"/>				12345677	20	University Dr NW, Calgary, Alberta	1298.39	on	cyth	qwertyui
<input type="checkbox"/>				30026610	21	University Dr NW, Calgary, Alberta	432.20	Ding	Jianan	1111100000

### Online shops

← T →				Shop_name	Shop_trade_mark	Website
<input type="checkbox"/>				London Drug	https://appointments.londondrugs.com/img/london-dr...	www.londondrugs.com
<input type="checkbox"/>				Real Canadian Superstore	data:image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAOEA...	www.realcanadiansuperstore.ca
<input type="checkbox"/>				Walmart Canada	https://upload.wikimedia.org/wikipedia/commons/thu...	www.walmart.ca

### Physical shops



		Shop_name	Phone	Address
<input type="checkbox"/>	Edit  Copy  Delete	Real Canadian Superstore	403-241-4027	5251 Country Hills Blvd NW, Calgary, Alberta T3A 5...
<input type="checkbox"/>	Edit  Copy  Delete	Walmart	403-247-8585	5005 Northland Dr NW #3011, Calgary, Alberta T2L 2...
<input type="checkbox"/>	Edit  Copy  Delete	Real Canadian Superstore	403-280-8222	3575 20 Ave NE, Calgary, Alberta T1Y 6R3
<input type="checkbox"/>	Edit  Copy  Delete	London Drug	403-288-0111	3625 Shaganappi Trail NW, Calgary, Alberta T3A 0E2
<input type="checkbox"/>	Edit  Copy  Delete	Real Canadian Superstore	403-516-8519	7020 4 St NW, Calgary, Alberta T2K 1C4
<input type="checkbox"/>	Edit  Copy  Delete	Walmart	403-567-1502	8888 Country Hills Blvd NW, Calgary, ALBERTA T3G 5...
<input type="checkbox"/>	Edit  Copy  Delete	London Drug	403-571-4933	3630 Brentwood Rd NW, Calgary, Alberta T2L 1K8
<input type="checkbox"/>	Edit  Copy  Delete	Walmart	403-730-0990	1110 57 Ave NE, Calgary, ALBERTA T2E 9B7

## Order history

		Order_id	User_id	Order_date	Total_amount
<input type="checkbox"/>	Edit  Copy  Delete	1	30026610	07/12/2018	74.70
<input type="checkbox"/>	Edit  Copy  Delete	2	30026610	07/12/2018	8.97
<input type="checkbox"/>	Edit  Copy  Delete	3	30026610	07/12/2018	8.97
<input type="checkbox"/>	Edit  Copy  Delete	4	30026610	13/12/2018	185.17
<input type="checkbox"/>	Edit  Copy  Delete	5	30026610	14/12/2018	549.85
<input type="checkbox"/>	Edit  Copy  Delete	6	30026610	14/12/2018	8.97
<input type="checkbox"/>	Edit  Copy  Delete	7	30026610	14/12/2018	8.97

## Product

Product_name	Bar_code	Picture	Price	Brand_name	Description	Size
Head & Shoulders Classic Clean Dandruff Shampoo	3700006232	https://i5.walmartimages.ca/images/Large/839/517/6...	5.98	Head & Shoulders	Help say goodbye to flakes and hello to great hair...	400 ml
Head & Shoulders MEN Full & Thick Dandruff 2-in-1	3700088070	https://i5.walmartimages.ca/images/Large/880/707/9...	8.97	Head & Shoulders	Get fuller, thicker looking hair and stay at the t...	700 ml
Dove Sensitive Skin Moisturizing Cream Beauty bar	6723885390	https://i5.walmartimages.ca/images/Large/853/907/9...	8.97	Dove	This Dove beauty bar brings you classic Dove clean...	8 x 90 g
L'Oréal Paris Smooth Intense Shampoo for Frizzy F...	7124936589	https://i5.walmartimages.ca/images/Large/839/692/6...	4.76	L'Oréal Paris	Humidity and harsh climates can cause frizz and m...	385 ml
Dove Damage Solutions Intensive Repair Shampoo	7940010411	https://i5.walmartimages.ca/images/Large/735/361/6...	8.27	Dove	Dove Intensive Repair Shampoo, with Fibre Active T...	750 ml
Dove Nutritive Solutions Coconut and Hydration Sha...	7940062489	https://www.dove.com/content/dam/unilever/dove/uni...	3.97	Dove	At Dove, we are dedicated to providing nourishment...	355 ml
Pantene Pro-V Daily Moisture Hydrating Renewal Sha...	8087807145	https://i5.walmartimages.ca/images/Large/875/485/6...	8.98	Pantene	Pantene Pro-V Daily Moisture Renewal Shampoo puts ...	730 ml
Pantene Pro-V Classic Clean Shampoo	8087818388	https://i5.walmartimages.ca/images/Large/878/983/6...	6.97	Pantene	A simple solution to cleanse any hair type, Panten...	595 ml
LEGO Mindstorms - LEGO MINDSTORMS EV3 (31313) Toy	67341919305	https://i5.walmartimages.ca/images/Large/514/302/6...	399.86	LEGO	LEGO MINDSTORMS EV3 has arrived! Combining the ver...	601 pcs
LEGO Ideas LEGO NASA Apollo Saturn V (21309) Toy	67341927715	https://i5.walmartimages.ca/images/Large/125/260/6...	149.99	LEGO	Display and role-play with this majestic meter-hig...	1969 pcs
Funko POP! Games: Fortnite - Black Knight Vinyl Fi...	88969834467	https://i5.walmartimages.ca/images/Large/187/666/6...	12.94	Funko	Inspired by designer toys and stylized character c...	1 pcs

## Shopping cart

Amount	Product_name	Bar_code	User_id	Price
1	L'Oreal Paris Smooth Intense Shampoo for Frizzy Fr...	7124936589	-1	4.76
1	LEGO Mindstorms - LEGO MINDSTORMS EV3 (31313) Toy	67341919305	110	399.86

## Wish list

Product_name	Bar_code	User_id
Head & Shoulders MEN Full & Thick Dandruff 2-in-1	3700088070	30026610
Pantene Pro-V Daily Moisture Hydrating Renewal Sha...	8087807145	30026610



## Reference

- Walmart, [www.walmart.com](http://www.walmart.com)