ASSIGNMENT 2 FRONT SHEET

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Student declaration

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.

Student's signature	

Grading grid

P5	P6	P7	M4	M5	D2	D3

☼ Summative Feedback:	☼ Resubmission Feedback:

Grade:	Assessor Signature:	Date:
Signature & Date:		

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A. Introduction

This report is aimed to provide a summary of the steps involved in developing a website (for a unique limited design shoes shop), beginning with designing the website based on user requirements, then deploying the website using tools and programming languages such as HTML, CSS, JS, and PHP, and finally developing and implementing a test plan for each website feature. The other section is comparing the designed document to the website that was created. This section will go over what has and hasn't been added to the newly launched website. Furthermore, the assignment provides users with Quality Assurance definitions, particularly in the areas of website design and development.Last but not least, critically evaluate the design and development process, result and analysis technical challenge will be displayed.

B. Content

I. Create a design document for a branded, multipage website supported with medium fidelity wireframes and a full set of client and user requirements. (P5)

1. Design document

For this project, I have divided the requirements into two groups: Admin Requirements and Customer Requirements.

Firstly, I design the Customer Requirements with some main functions based on multipage website. There are some functions:

- Loop browsing the shop on Home page.
- Login.
- Logout
- Register.
- Ask for help by email or phone.
- See the introduction of the website.
- View detail of the product.
- View the profile.
- Edit the profile
- View items in the cart.
- Order online.

Secondly, for the Admin Requirements (as known as Admin or Seller). There are some expectations such as:

- View/Modify users.
- Login.

- Logout.
- View/Add/Modify/Delete products.
- View asking for help.
- Change status requirements.
- View orders.
- View orders details.

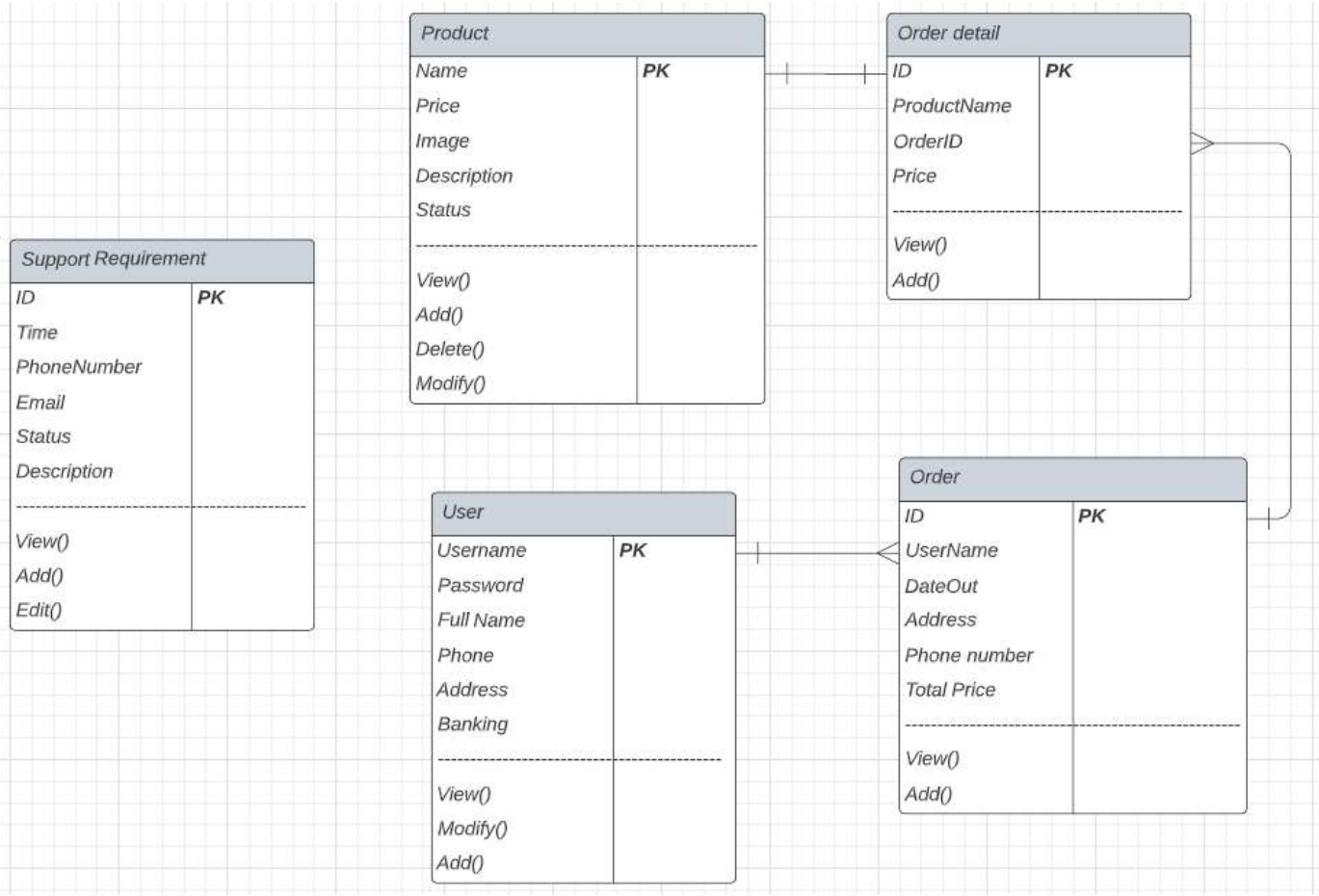


Figure 1: Class diagram for the whole system

Explanation: Our website is aimed to sell the limited monopoly product, then only product is just the only one; for that reason, I used the name of product as it primary key. The relationship between those elements is also based on the fact that my database is created for selling limited monopoly product: 1 product is just can be sought 1 time, which makes the relationship between product and order detail is 1-1. A order has more than 1 order detail due to the fact that 1 order includes many product, so the relationship between order and order detail is 1-many. The user and order's relationship

is based on the theory that 1 user can have many orders, but an order is just belongs to 1 user, this relationship is 1-many. Those attributes in the table is:

- **Product:**
  - Name: to indentify the product.
  - Price: the price of the product.
  - Description: the information detail of the product.
  - Image: image link source of the product.
  - Status: the status of the product.
    The product can be added, deleted, modified and viewed.
- **Order detail:**
  - ID: to indentify the detail.
  - Product name: The information about the name of that detail (product's name).
  - Order ID: which order that detail belongs to.
  - Price: Price of that detail.
    The detail can be added and viewed.
- **Order :**
  - ID: to indentify the order.
  - Username: Who bought that order.
  - Date out: When the order was confirmed.
  - Address: Where the order will be sent to.
  - Phone number: the phone number of buyer.
  - Total price: Total price of the whole order.
    The order can be added and viewed.
- **User:**
  - Username: customer's username, indentify the user.
  - Password: customer's password.
  - Full name: full name of customer.
  - Phone: the phone number of customer.
  - Address: Address of customer.
  - Banking: The banking of that user.
    The order can be added, modified and viewed.
- **Support requirement:**
  - ID: indentify the support requirement.
  - Time: When the support requirement is sent.
  - Email: Email to receive support.

- Phone number: Phone number to receive the support.
- Status: Is that request solved or not.
- Description: the problem which is needed to solve.

The order can be added, modified and viewed.

a) Customer

Figure 2: Login and Register

Figure 3: Sign Up

Figure 4: Interface of Home page (1)

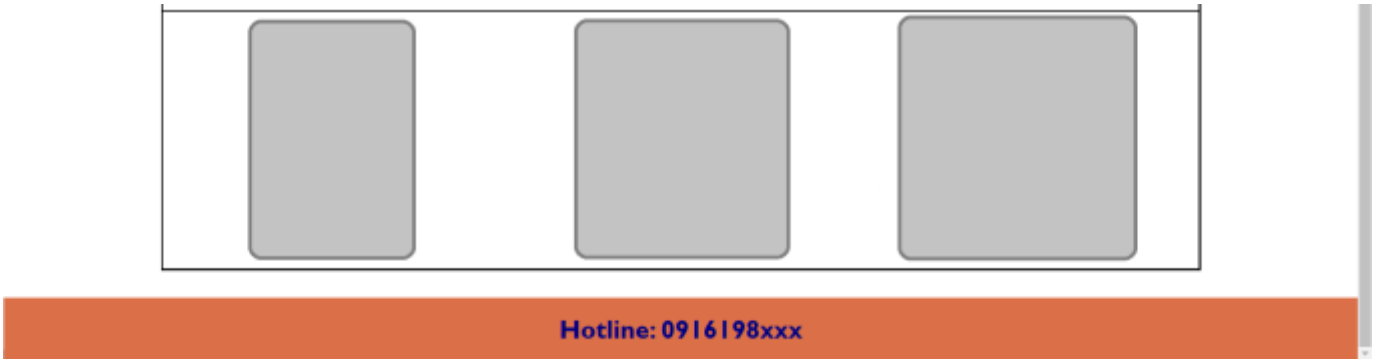


Figure 5: Interface of Home page (2)

Figure 6: Profile

Figure 7: Contact

Figure 8: Introduction

Figure 9: Login and Logout

Figure 10: User profile (1)

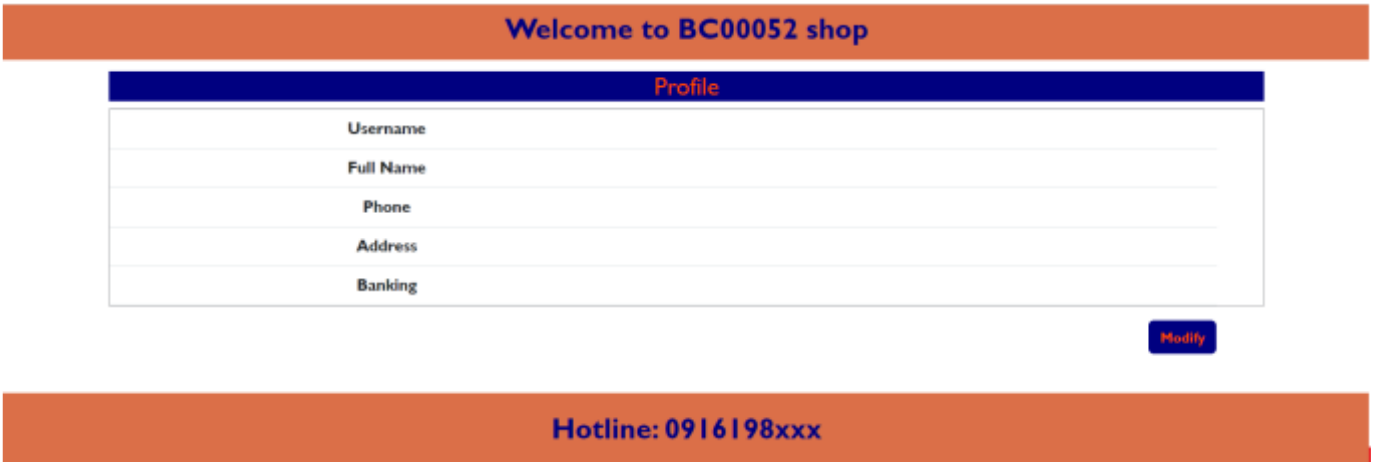


Figure 11: User Profile (2)

Figure 12: Modify Profile

Figure 13: Cart interface

Figure 14: Introduction Interface (1)

Figure 15: Introduction Interface (2)

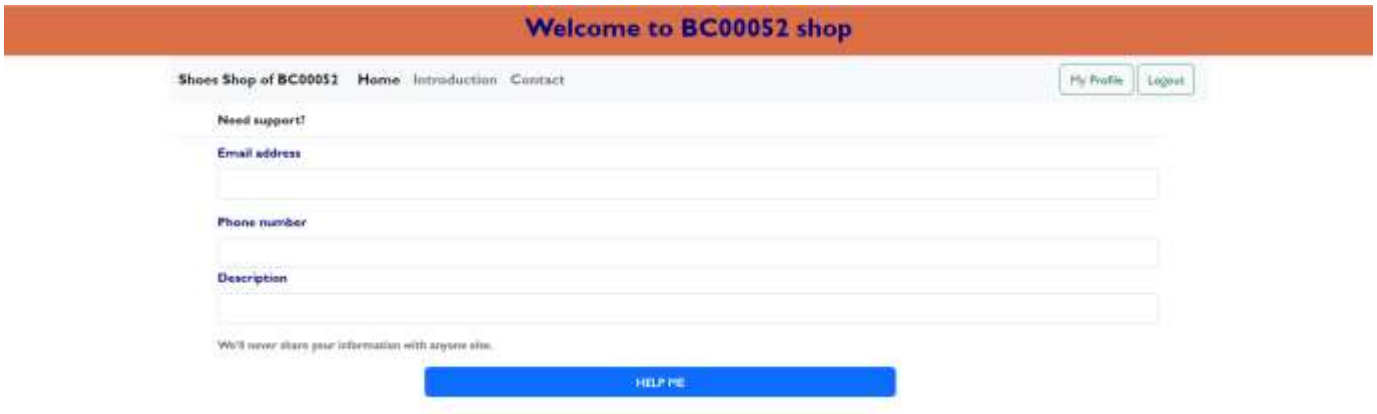


Figure 16: Contact Interface (1)

Figure 17: Contact Interface (2)

b) Admin

Figure 18: Admin Login Interface

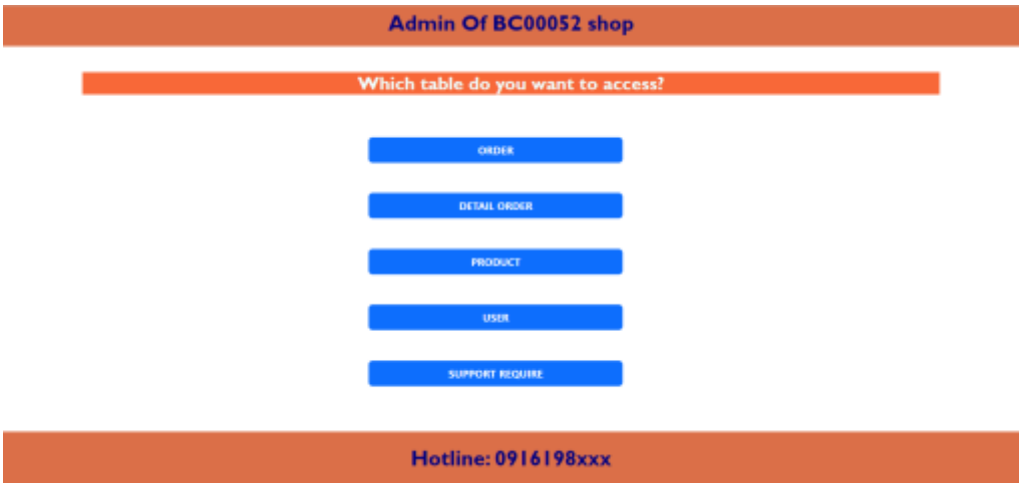


Figure 19: Admin Home Interface

Figure 20: Admin User Management Interface

Figure 21: Admin Order Management Interface

Figure 22: Admin Order Detail Management Interface

Figure 23: Admin Support Management Interface

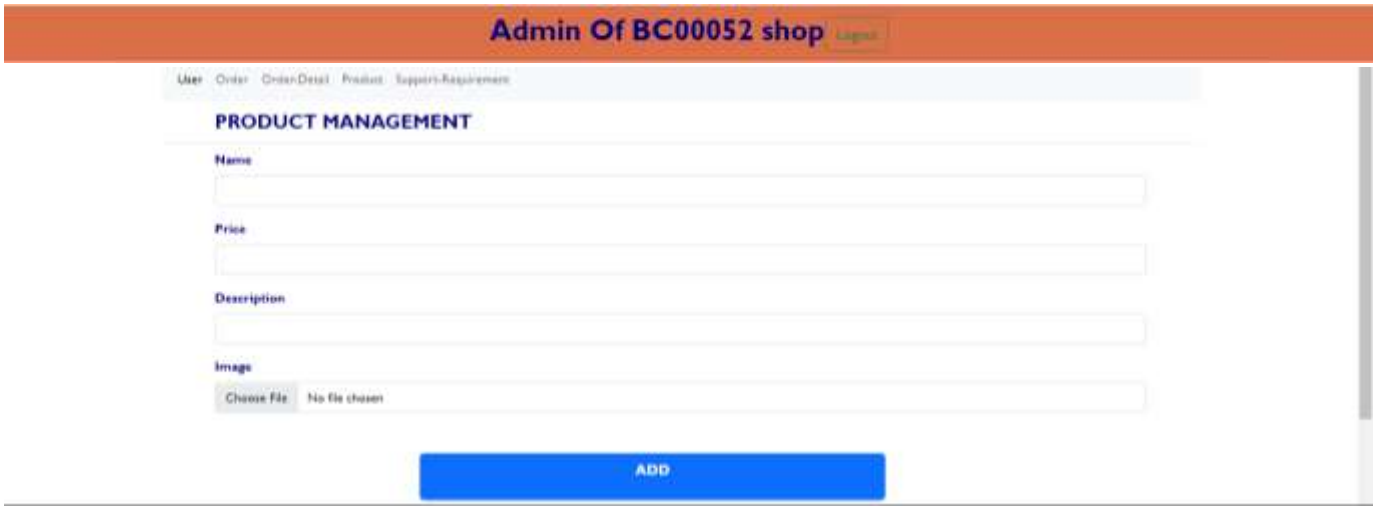


Figure 24: Admin Product Management Interface (1)

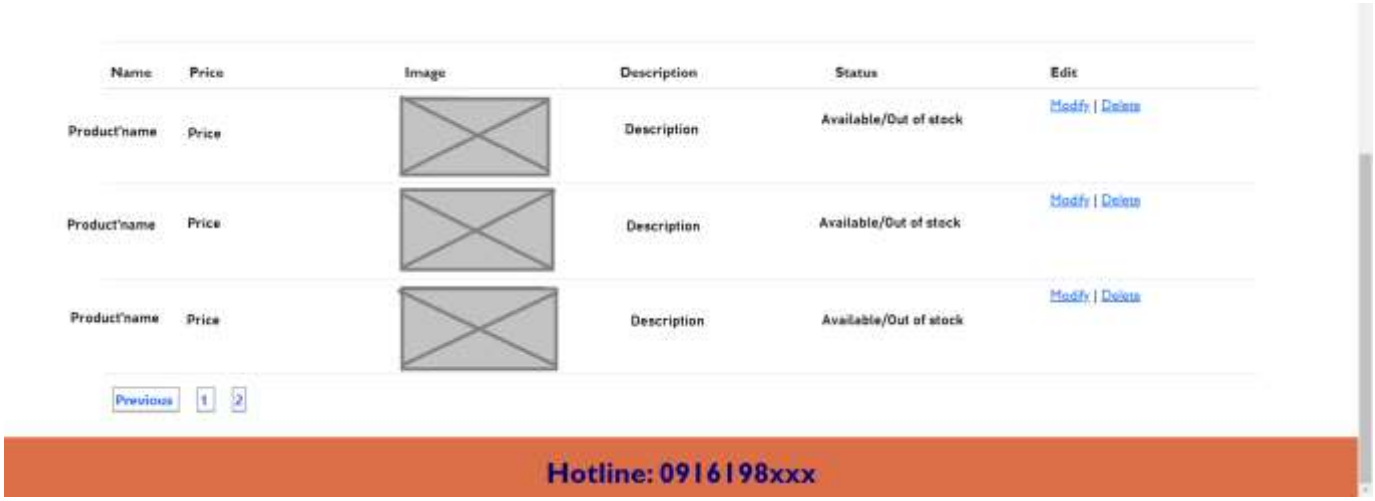


Figure 25: Admin Product Management Interface (2)

2. Database design

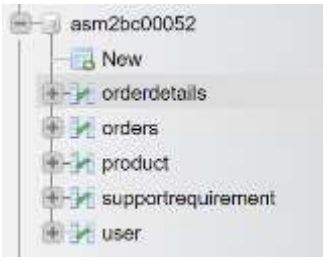


Figure 26: All the table for website's database

	Username	Password	Full Name	Phone	Address	Banking	Authority
Edit Copy Delete	BC00052	9698303a97436a439e9a5c11a268ebdb	Huynh Tran Nam Phuong	0895142684	13B Red Street, London	Fx051754225	Customer
Edit Copy Delete	BTEC	66d614886545170c0fabab01895715b5	Alex ShiohYu	0775145685	11A Green Street, LA	Fx0512541155	Customer
Edit Copy Delete	hehe	e37f2c0f5f12db2220336f0cf5d2d25	Ohiyo Nihao	8895	Momo street, California	Ma089579547	Customer
Edit Copy Delete	htnp00052	12decbced71322693583af2ccbad7edb	Wan An	0916198548	70/69 CMT8, Can Tho	1013399410	Customer
Edit Copy Delete	Lavaa	fa0c7551445288d5c459d21216eb12e1	Lavia Mika	0998578	ASK street, Vung Tau	Om084759875	Customer
Edit Copy Delete	LavaAdmin	108bdb2d88148e3386910ac5f70c5195	Wiliam Moki	09178547895	ABC Street, Ho Chi Minh	Mk0588789	Admin
Edit Copy Delete	User123	25f9e794323b453885f5181f1b624d0b	Alixe Karma	0558966874	A123 BC street	Fx0512541155	Customer

Figure 27: User Table

	Name	Price	Image	Description	Status
Edit Copy Delete	Design A	859875426987	image/1669814002 as.png	First Item	Available
Edit Copy Delete	Design B	1000000000	image/1669812635 designA.png	Suitale for teenagers	Available
Edit Copy Delete	Design C	9858889658	image/1669812764 DesignB.png	Worth for your value	Available
Edit Copy Delete	Design D	7777777777	image/1669812819 designc.png	New Arrive!	Available
Edit Copy Delete	Design E	745896258	image/1669813465 designE.png	Nike and Nice	Available
Edit Copy Delete	Design H	77774448889	image/1669814050 designH.png	Cross for luxury	Available
Edit Copy Delete	Design K	100	image/1669813536 designK.png	Sale only for today with value appeareance	Out of Stock

Figure 28: Product Table

	ID	ProductName	OrderID	Price
Edit Copy Delete	1	Design V	77	8090000
Edit Copy Delete	2	Design K	85	3090000
Edit Copy Delete	3	Design H	77	5650000
Edit Copy Delete	4	Design M	85	2759900
Edit Copy Delete	5	Design O	97	9000074

Figure 29: Order Detail Table

	ID	UserName	DateOut	Address	Phone number	Total Price
Edit Copy Delete	1	BTEC	2022-11-16	11A Green Street, LA	0958475136	785695478
Edit Copy Delete	2	Pearson	2022-11-19	12B White Street, London	0478569258	14785620
Edit Copy Delete	3	Alice B	2022-11-29	298K Red Street, London	0718584751	6090000
Edit Copy Delete	4	htnp00052	2022-11-14	70/69 CMT8, Can Tho	0916198548	30090000

Figure 30: Order Table

	ID	Time	PhoneNumber	Email	Status	Description
Edit Copy Delete	1	2022-11-01	058965412	huynh.namphuong0003040@gmail.com	no	can't login
Edit Copy Delete	2	2022-11-10	087456920	daomaixuandi@conechxanhxanh.com	no	forget my password
Edit Copy Delete	3	2022-11-26	06589176	alice0510189@gmail.com	yes	Can't change the username
Edit Copy Delete	9	2022-12-02	0916198548	phuonghtnBC00052@fpt.edu.vn	no	Need more ancient item

Figure 31: Support Requirement Table

II. Use your design document with appropriate principles, standards and guidelines to produce a branded, multipage website supported with realistic content. (P6)

1. Use tool ands programming languages

In order to build this website, I used various programming languages:

- To front-end, I used html, css, javascript (along with Bootstrap).
- To database, I used mySQL through phpMyAdmin.
- To IDE, I used Visual Studio Code.
- To interact between front-end and back-end, I used php (embed in html).
- Other: Xampp.

2. How the website work

a) Customer's side

When the customer enter the url: http://localhost/ASM2_BC00052/customer/homepage.php/ the customer homepage will open:

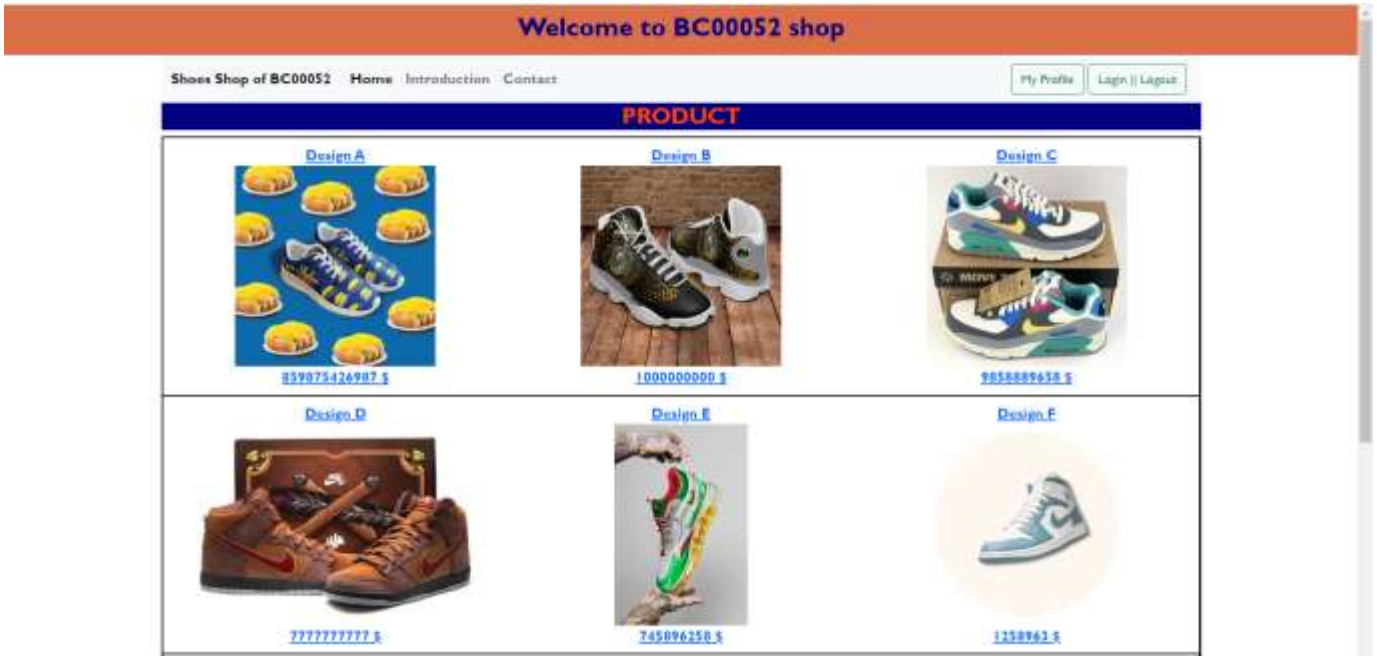


Figure 32: Customer Home Interface (1)

Figure 33: Customer Home Interface (2)

From the main page, user can click on any items in the menu bar, the website will lead the user to another feature page such as:

- Home: as the backbone of the website, the default page of the website and give the detail of each product in case customer click the product image.
- Introduction: introduce the website, our aim, our value, overview of my website.
- Contact: help the customer in case they want the directly contact.
- My profile: seeing the profile of customers and modify in case they want to modify their own information.

- Login/logout: login and logout customer's account.

The customer can scroll it as a loop, the landing page will display all of the items of the shop which have been available recently, when there is no item to show, then the website will display from the beginning as a loop.

If customers want to know more about the product, they can click on the product and the detail of its will be presented like that:

Figure 34: Detail of product

The detail of the pointed product will display:

- The name of the product.
- The price of the product.
- The image of the product.
- The description of the product.

However, in order to add the item to the cart, the customer must login. If and only if when the user logined, there will be the ADD button like that:

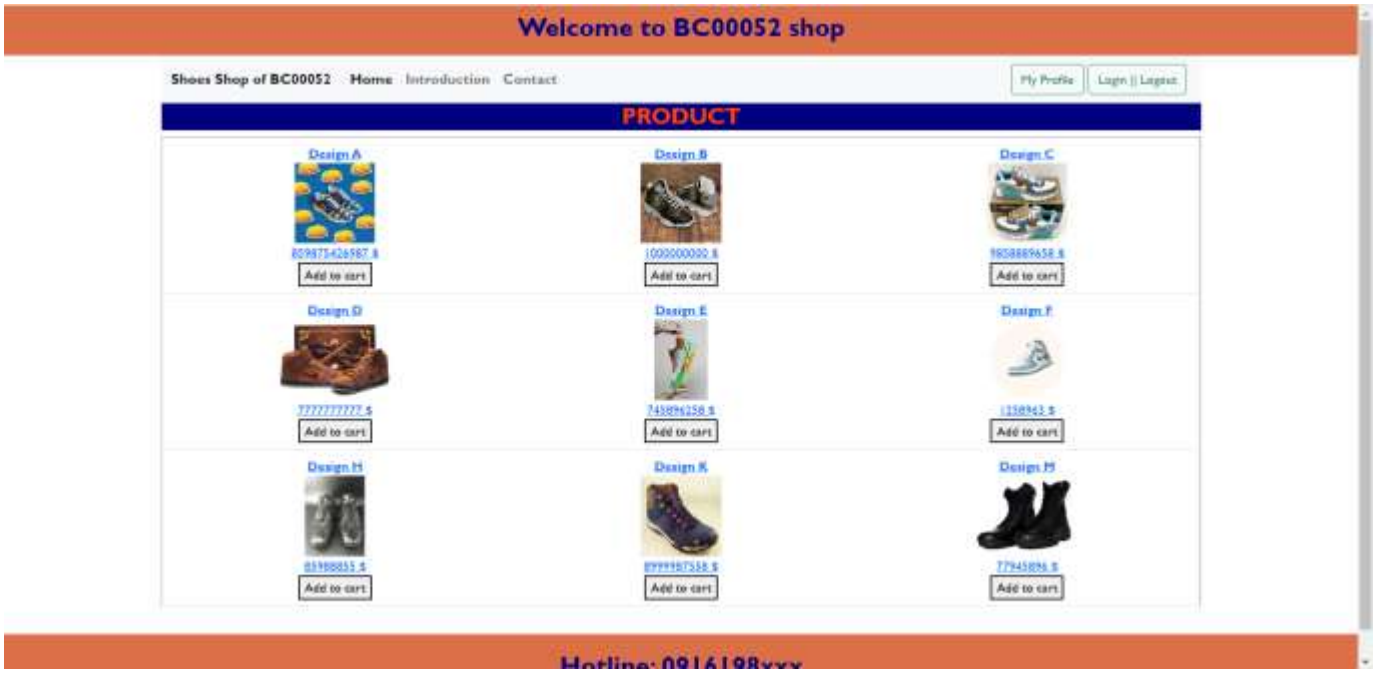


Figure 35: Homepage after login

For loginning the website, the customer must press this button:

Figure 36: Login & Logout button

Then the Login interface will be shown like that, customer must input the correct Username and Password to enter. In this example case, I will use UserName:”example2” and Password:”123456789”, which has been existed in database to login.

Figure 37: Login

If the customer hasn't had the account yet, he/she can press the "Register" button and Register form will be shown up:

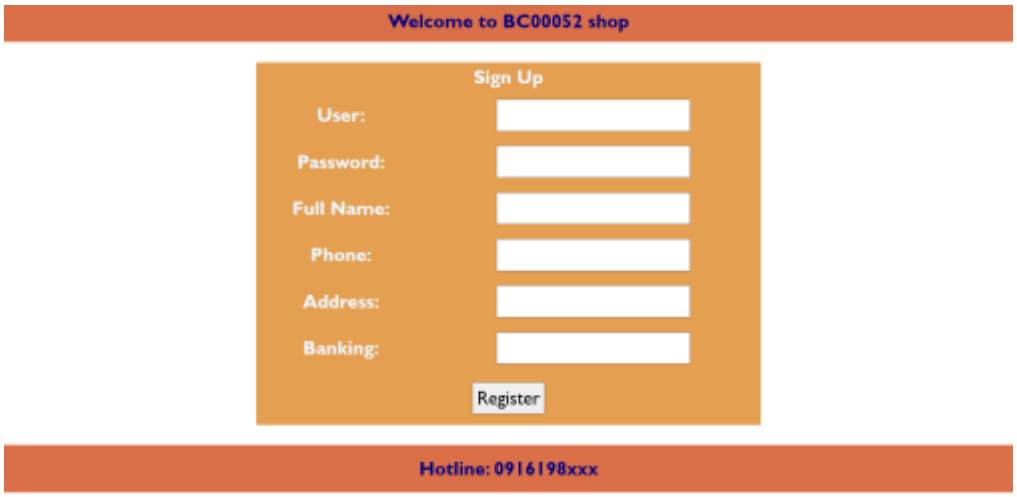


Figure 38: Sign up

In order to register, customers must fulfill the user, password, full name, phone, address, banking which they want. Take some note that the password must be longer than 7 characters.

Customer should fulfill it and then press the "Register" button, there will be an alert to confirm signed up successfully then user will be lead to the login interface.

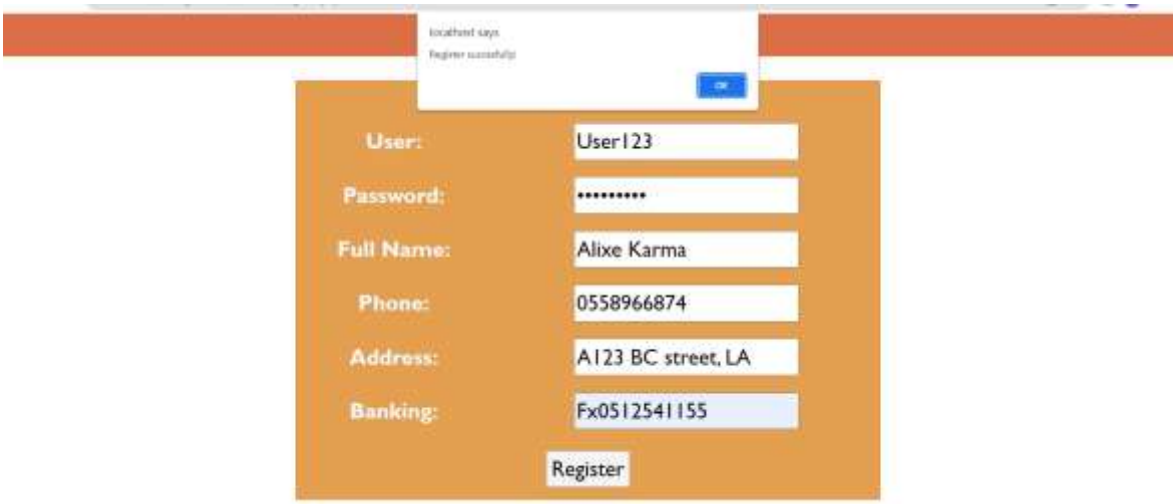
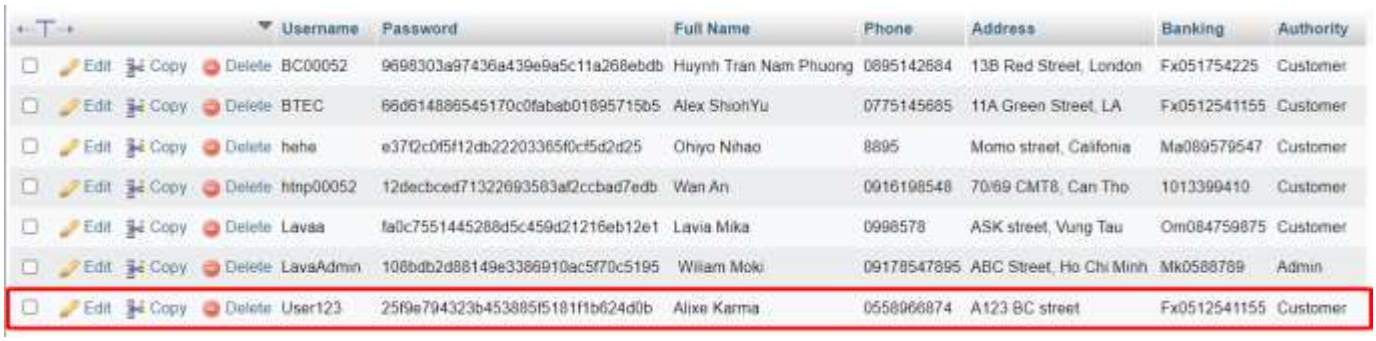


Figure 39: Sign up successfully

If the information which user uses to register is not appropriate or insecure, there also an alert to warm them and the information won't be sent to database until there is no warning. Example of a warning:

Figure 40: Example when not sign up successfully

The user is the username of that account, the password must more than 7 characters, the full name is the full name of the account's user, phone is the phone to contact with user, the address is the where the product will be delivering and the banking is the banking series of user in case the customer want to pay by banking account. The information will be sent and saved in database:



	Username	Password	Full Name	Phone	Address	Banking	Authority
Edit Copy Delete	BC00052	9698303a97436a439e9a5c11a268ebdb	Huynh Tran Nam Phuong	0895142684	13B Red Street, London	Fx051754225	Customer
Edit Copy Delete	BTEC	66d614886545170c0fabab01895715b5	Alex ShohYu	0775145685	11A Green Street, LA	Fx0512541155	Customer
Edit Copy Delete	hehe	e37f2c0f5f12db2220336f0cf5d2d25	Ohiyo Nihao	8895	Momo street, Califonia	Ma089579547	Customer
Edit Copy Delete	htnp00052	12decbced71322693583af2ccbad7edb	Wan An	0916198548	70/69 CMT8, Can Tho	1013399410	Customer
Edit Copy Delete	Lavaa	fa0c7551445288d5c459d21216eb12e1	Lavia Mika	0998578	ASK street, Vung Tau	Om084759875	Customer
Edit Copy Delete	LavsAdmin	108bdb2d88149e3386910ac5f70c5195	Wiliam Moki	09178547895	ABC Street, Ho Chi Minh	Mk0588789	Admin
Edit Copy Delete	User123	25f9e794323b453885f5181f1b624d0b	Alixe Karma	0558966874	A123 BC street	Fx0512541155	Customer

Figure 41: Saving Register Information

After login, customer can add the item into their cart. For example, when customer click “Add to cart” button, that item will be added into cart and customer will be sent to the cart interface that the same time.

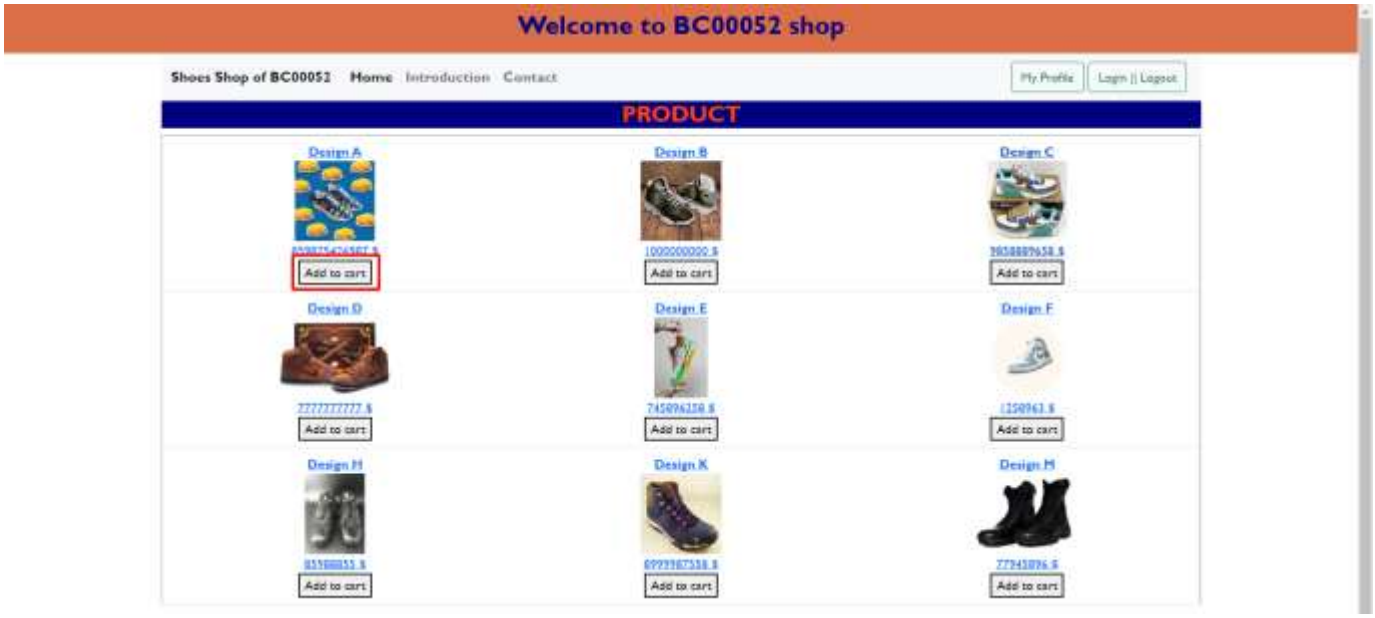


Figure 42: Add item into the cart

Figure 43: Add item to cart successfully.

The cart interface will give customers the information about which item they chose, how much each item price and the total price of the whole cart. Moreover the cart provide some choices for customers such as: continute to buy, confirm and delete.

From the cart, customer can choose to continue to buy or just confirm the order. When chosing "Continue to buy" user will be lead back to the homepage interface and can continue browsing the shop. When chosing "Confirm" the order will be confirmed and push into the database (order and orderdetail table); after that, the cart will be cleared. Moreover, if the user don't want this item anymore, he/she can click the "delete" button and the item will be removed.

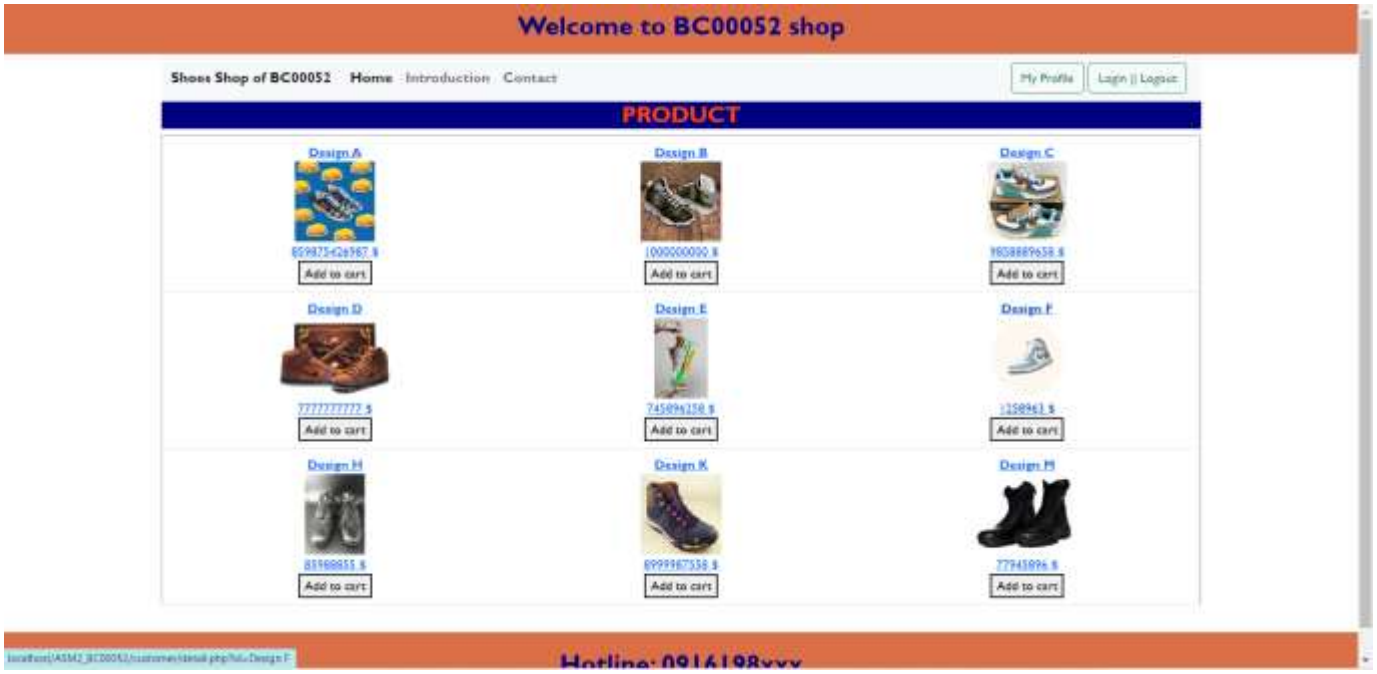


Figure 44: Chosing "Continue to buy"

The continue to buy choice will lead the customers back to the homepage to browse the shop.

Figure 45: Continue to buy and add more product

Deleting product won't lead the customers back to the homepage but stay at the cart page in order to the user custom their own cart until they want to buy those their chosen product. At that time, they can press the confirm button to confirm all of the cart, there will be an alert to confirm that action and the cart will be cleared.

Figure 46: Delete the Product from cart

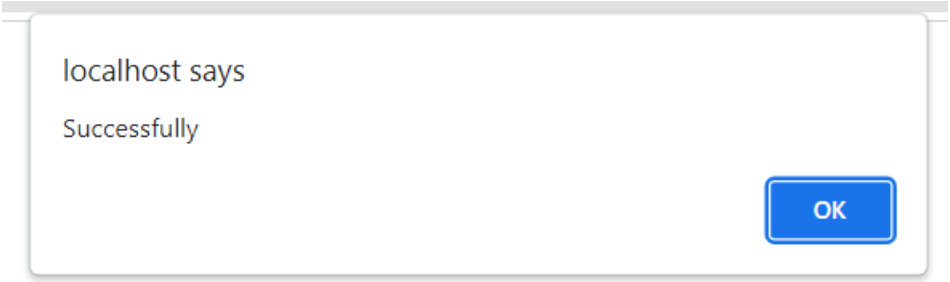


Figure 47: Message when confirm the cart

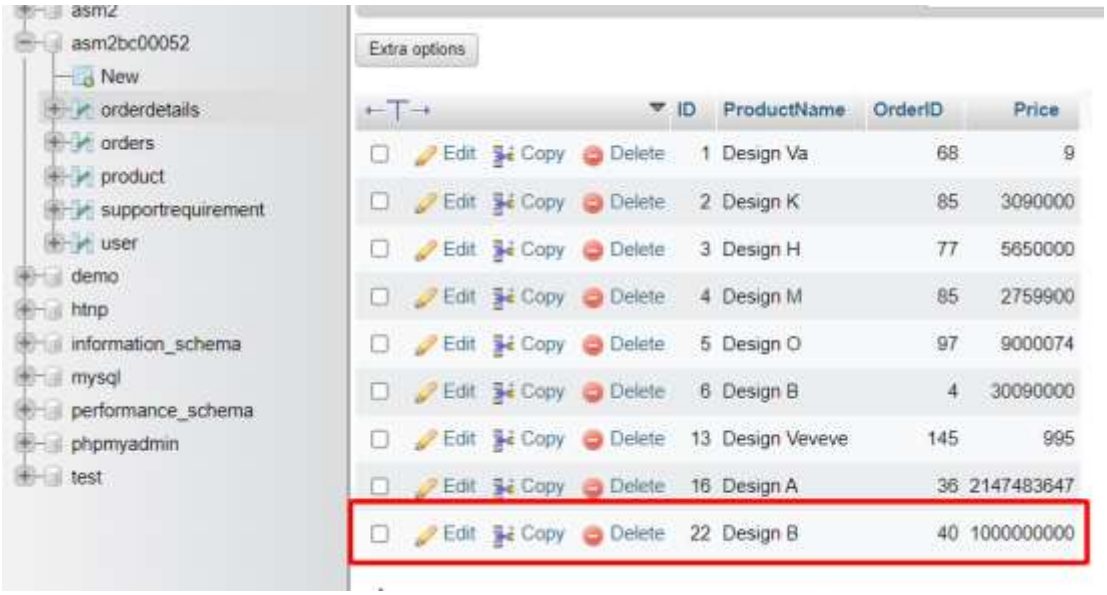


Figure 48: The detail will be added

Figure 49: The order will be created

Figure 50: The cart has been cleared

In case there is nothing in the cart but customer press “confirm” there will be an alert to tell them there is nothing there:

Figure 51: Nothing in cart

In order to get more information about our website, customer can press “Introduction”. It will lead to Introduction page:

Figure 52: Introduction on menu

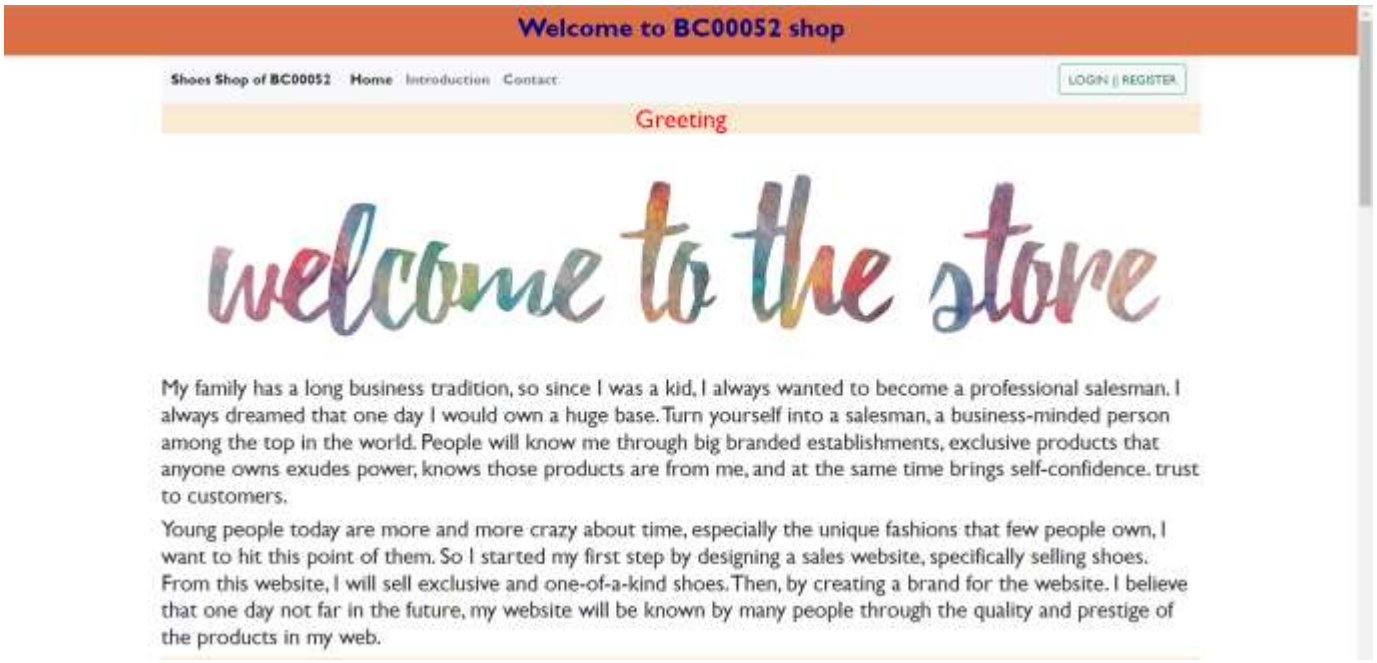


Figure 53: Introduction page (1)

Figure 54: Introduction page (2)

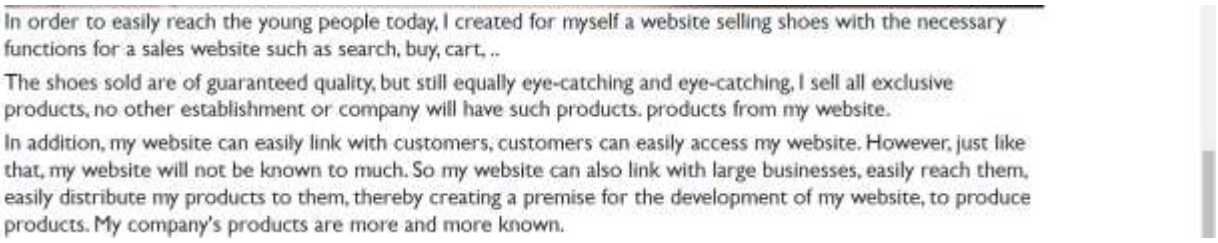


Figure 55: Introduction page (3)

Figure 56: Introduction page (4)

The introduction page will show the customers the detail overview of the website such as the greeting, the purpose and the value of the website. This page is the important part of the website due to it's friendliness, customers can identify with the shop, know the value of the product then will buy more.

Besides that, customer can contact to people who are in charge of this shop by pressing "Contact". It will lead to Contact page:

Figure 57: Contact on the menu

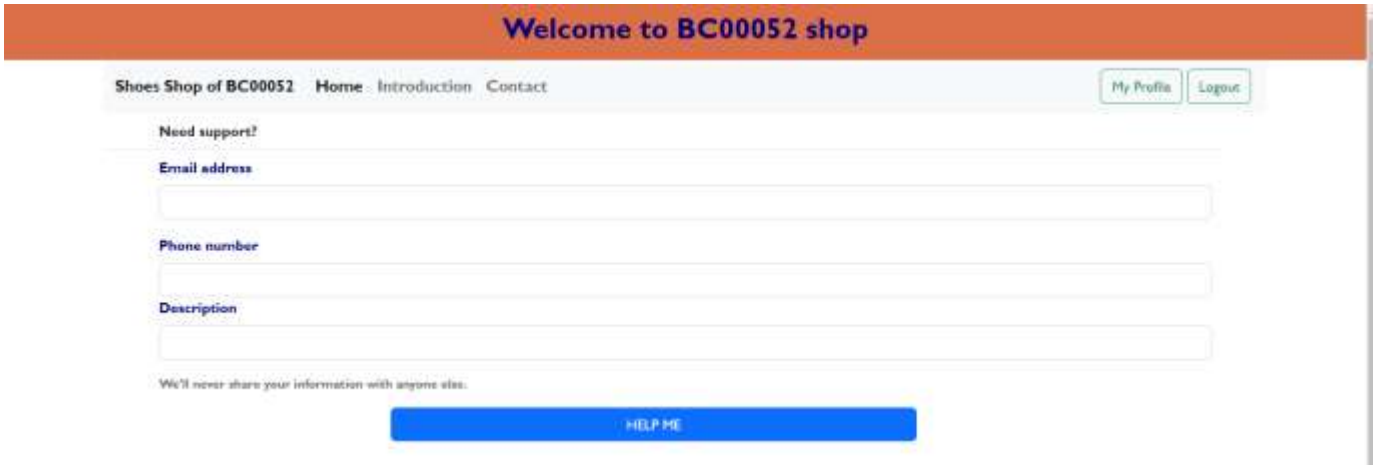


Figure 58: Contact page (1)

Figure 59: Contact page (2)

The contact page is created in order to help the customers to get the directly help from the staff. Just by filling the form, staff will contact them by their own email, phone number which they wish and

solve the problem as soon as possible due to the problem has been disscused in the description input. Moreover, customers can contact to the staff directly by the facebook link, zalo, email or even go to the address which is mentioned in the bottom.

After submitting the form, the information that customer input will be recorded into database, but if the user don't input the "real" email or phone number, there will be a reminder and can't submit:

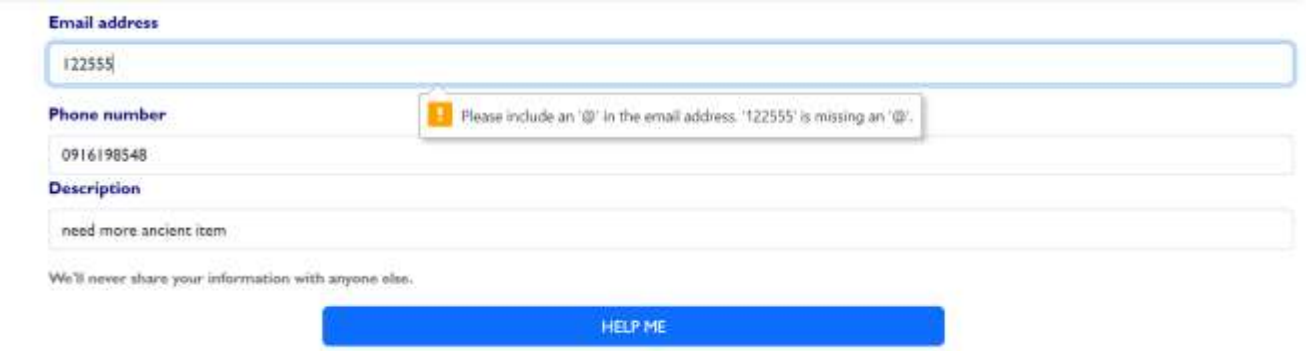


Figure 60: The reminder

	ID	Time	PhoneNumber	Email	Status	Description
Edit Copy Delete	1	2022-11-01	058965412	huynh.namphuong0003040@gmail.com	no	can't login
Edit Copy Delete	2	2022-11-10	087456920	daomaixuandi@conechxanhxanh.com	no	forget my password
Edit Copy Delete	3	2022-11-26	06589176	alice0510189@gmail.com	yes	Can't change the username
Edit Copy Delete	9	2022-12-02	0916198548	phuonghtnBC00052@fpt.edu.vn	no	Need more ancient item

Figure 61: Recorded requirement successfully

Whenever the the customers need to check or change themselves' information, they can click the My Profile:

Figure 62: User Profile

Figure 63: User Profile Interface

From there, customers can see their information about their username, full name, phone, address and banking. Moreover, customer can change his/her information by clicking the Modify button and the website will lead the user to the modify profile interface:

Figure 64: Modify button of Profile

Figure 65: Modify profile interface

From the modify profile interface, the user can modify their own information in case the user can provide the correct present password. Otherwise, nothing will change. Pay the attention that customer can't change the their username and the input should be the correct format.

Figure 66: Input to change the information

	Username	Password	Full Name	Phone	Address	Banking	Authority
Edit Copy Delete	BC00052	9698303a97436a439e9a5c11a268ebdb	Huynh Tran Nam Phuong	0895142684	13B Red Street, London	Fx051754225	Customer
Edit Copy Delete	BTEC	66d614886545170c0fabab01895715b5	Alex ShiohYu	0775145685	11A Green Street, LA	Fx0512541155	Customer
Edit Copy Delete	example2	6ebe76c9fb411be97b3b0d48b791a7c9	This is Example	0985888745	ABC street, Can Tho	Ak058965896	Customer
Edit Copy Delete	hehe	e37f2c0f5f12db22203365f0cf5d2d25	Ohiyo Nihao	8895	Momo street, Califonia	Ma089579547	Customer
Edit Copy Delete	htnp00052	12decbced71322693583af2ccbad7edb	Wan An	0916198548	70/69 CMT8, Can Tho	1013399410	Customer
Edit Copy Delete	Lavaa	fa0c7551445288d5c458d21216eb12e1	Lava Mika	0998578	ASK street, Vung Tau	Om084759875	Customer
Edit Copy Delete	LavaAdmin	106bdb2d88149e3386910ac5f70c5195	Wiliam Moki	09178547895	ABC Street, Ho Chi Minh	Mk0588789	Admin
Edit Copy Delete	User123	25f9e794323b453885f5181f1b624d0b	Alice Karma	0558966874	A123 BC street	Fx0512541155	Customer

Figure 67: Change the information successfully

b) Admin's side

First of all, admin must login to enter it, for this example case, I will use user:" LavaAdmin" and password:"LavaAdmin123", which have been existed in the database.

Figure 68: Admin login interface

The user and password will be only provided by the developer of this app. If the user or password is not correct, there will be an alert and user can't login, otherwise, user will be led to Admin homepage:

Figure 69: Wrong user or password

Figure 70: Login successfully

At homepage, admin can choose the information to manage, investigate, check,… By clicking to the button, admin will be led to this page to manage the object.

Clicking "Order", there will display as:

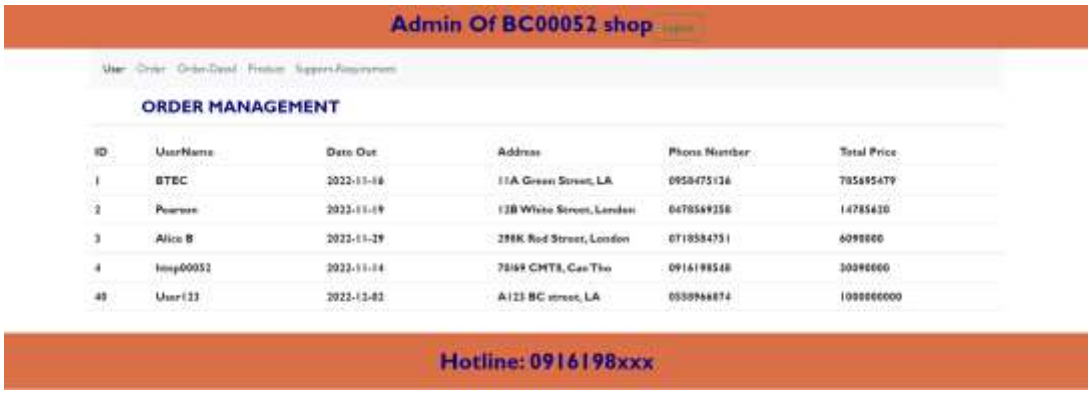


Figure 71: Order Management

The information is all loaded from the database:

	ID	UserName	DateOut	Address	Phone number	Total Price
Edit Copy Delete	1	BTEC	2022-11-16	11A Green Street, LA	0958475136	785695479
Edit Copy Delete	2	Pearson	2022-11-19	12B White Street, London	0478569258	14785620
Edit Copy Delete	3	Alice B	2022-11-29	298K Red Street, London	0718584751	6090000
Edit Copy Delete	4	htnp00052	2022-11-14	70/69 CMT8, Can Tho	0916198548	30090000
Edit Copy Delete	40	User123	2022-12-02	A123 BC street, LA	0558966874	1000000000

Figure 72: The orders are in database

The order management page will display the information about orders such as: ID, UserName (who bought), DateOut (the date which the order has been confirmed), the address (which the order should be sent to), the phone number (the phone number of that buyer), the total price of that order (how much the buyer will pay).

Clicking the “Detail Order” and it goes like this:

Figure 73: Order detail management interface

As the Order management, the Order Details are loaded from the database:

	ID	ProductName	OrderID	Price
Edit Copy Delete	1	Design Va	68	900
Edit Copy Delete	2	Design K	85	3090000
Edit Copy Delete	3	Design H	77	5650000
Edit Copy Delete	4	Design M	85	2759900
Edit Copy Delete	5	Design O	97	9000074
Edit Copy Delete	6	Design B	4	30090000
Edit Copy Delete	13	Design Veveve	145	995
Edit Copy Delete	16	Design A	36	2147483647
Edit Copy Delete	22	Design B	40	1000000000

Figure 74: Order details are in the database.

The order details management will display the information about the details such as: the ID, the product name (what is it), the order id (this detail belongs to which order) and the price of this detail (the price of each product in that order).

Clicking the “Product” button, things go like above, but it has “break page”, admin can press it to go to another part of product list.

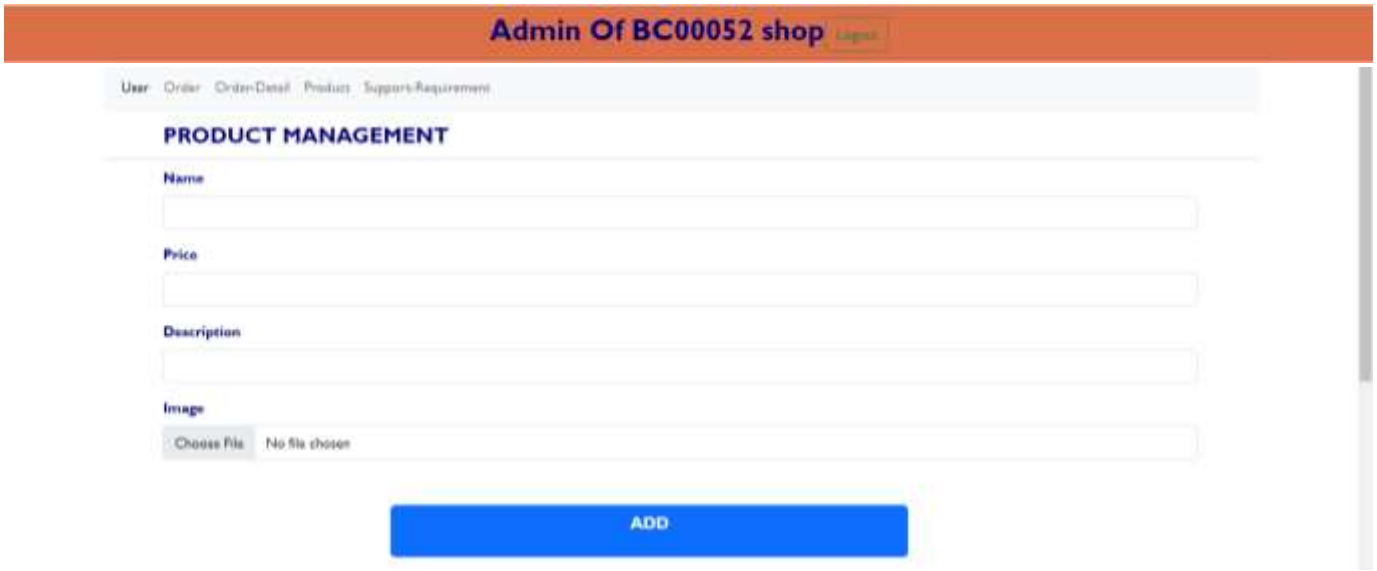


Figure 75: Product (1)

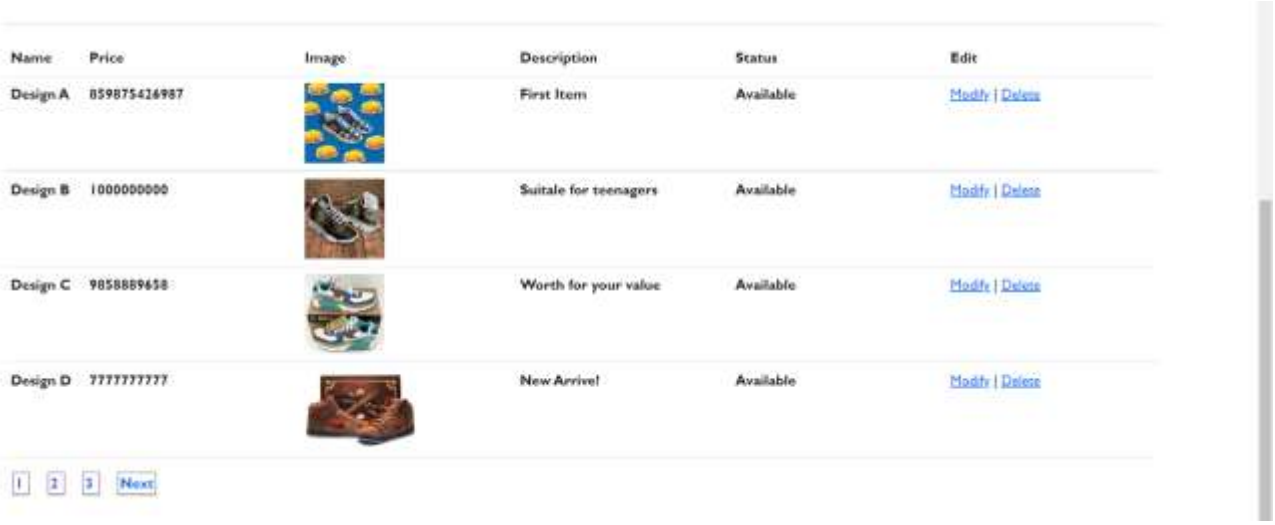


Figure 76: Product (2)

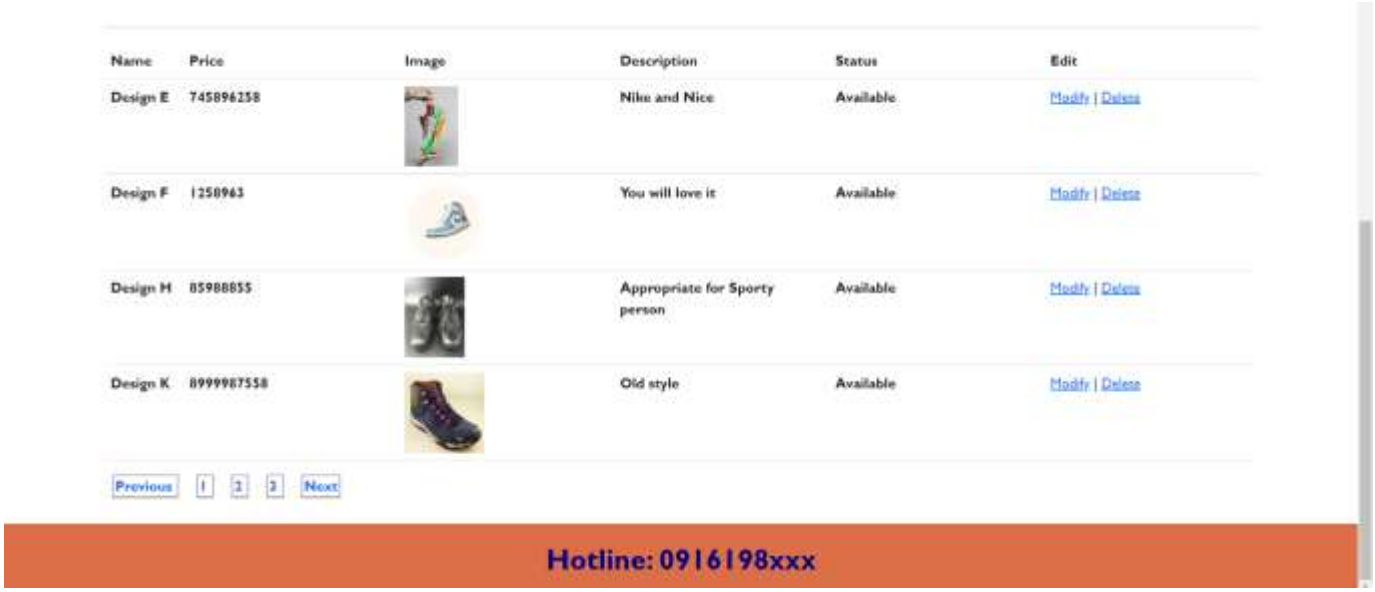


Figure 77: Page 2 of Product

The product management will display information about the products which are in the database such as: the name those product, the price of the product, the image of the product, the description of the product and the status of each product (the product is bought or not). Moreover it will show the option to modify or delete each product. Besides that, if the admin want to add new product, they can full up all of the textboxes and choose an appropriate image for new product, then press the “Add”

button. The new product will be added and the page will be loaded and display more product which is added.

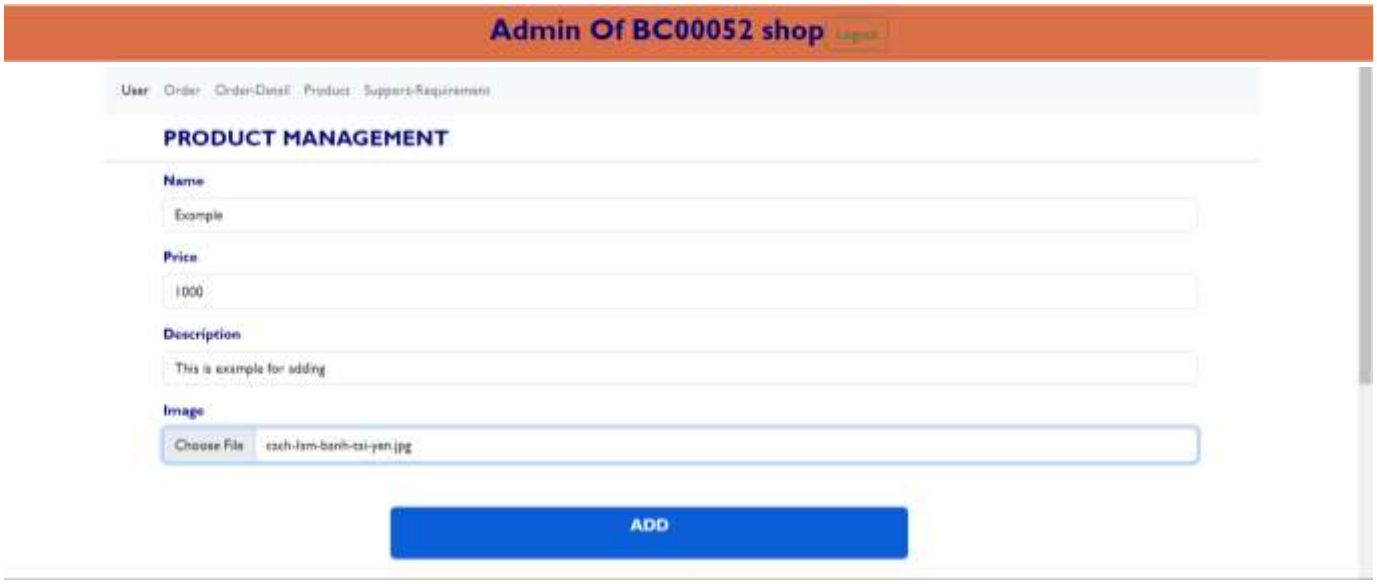
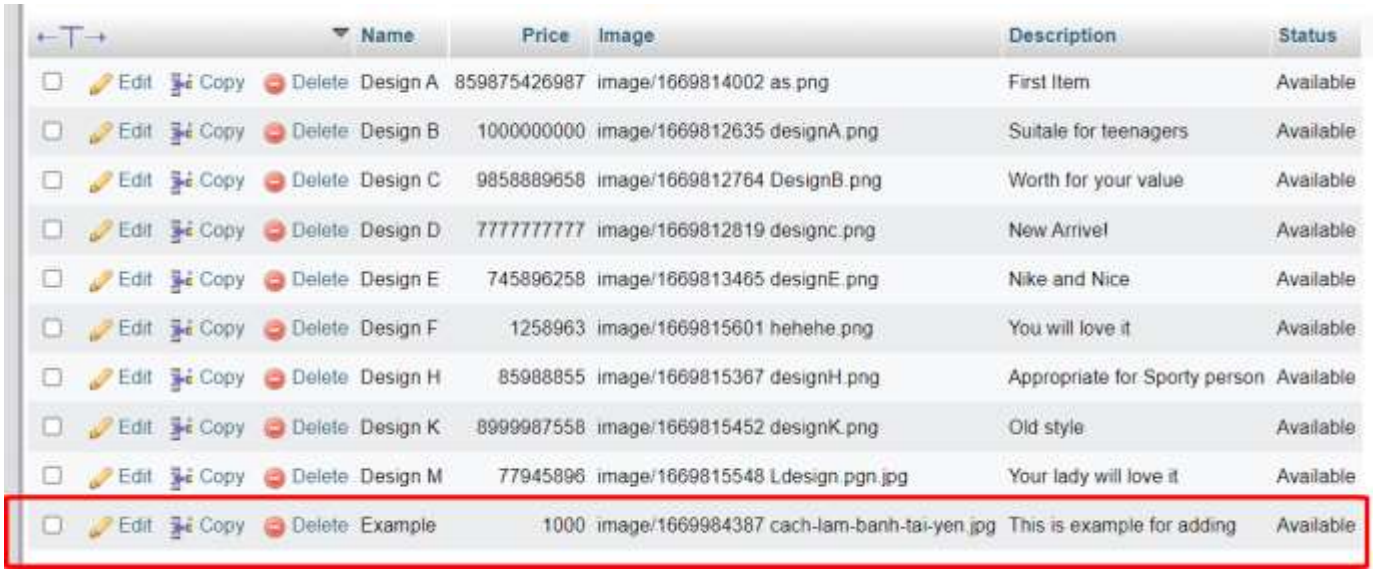
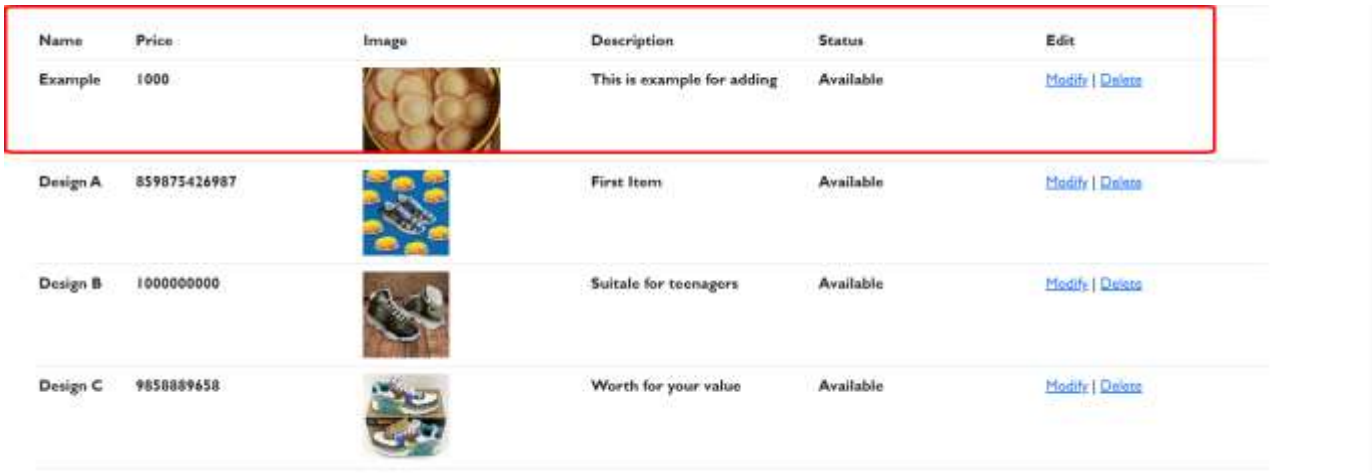


Figure 78: Add New Product



	Name	Price	Image	Description	Status
Edit Copy Delete	Design A	859875426987	image/1669814002 as.png	First Item	Available
Edit Copy Delete	Design B	1000000000	image/1669812635 designA.png	Suitale for teenagers	Available
Edit Copy Delete	Design C	9858889658	image/1669812764 DesignB.png	Worth for your value	Available
Edit Copy Delete	Design D	7777777777	image/1669812819 designc.png	New Arrivel	Available
Edit Copy Delete	Design E	745896258	image/1669813465 designE.png	Nike and Nice	Available
Edit Copy Delete	Design F	1258963	image/1669815601 hehehe.png	You will love it	Available
Edit Copy Delete	Design H	85988855	image/1669815367 designH.png	Appropriate for Sporty person	Available
Edit Copy Delete	Design K	8999987558	image/1669815452 designK.png	Old style	Available
Edit Copy Delete	Design M	77945896	image/1669815548 Ldesign pgn.jpg	Your lady will love it	Available
Edit Copy Delete	Example	1000	image/1669984387 cach-lam-banh-tai-yen.jpg	This is example for adding	Available

Figure 79: New Product has been added into database



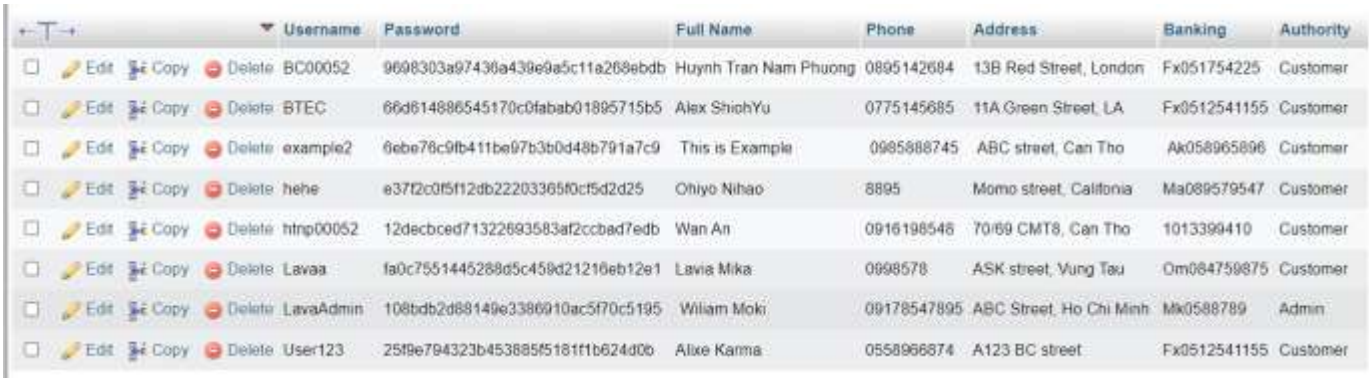
Name	Price	Image	Description	Status	Edit
Example	1000		This is example for adding	Available	Modify | Delete
Design A	859875426987		First Item	Available	Modify | Delete
Design B	1000000000		Suitale for teenagers	Available	Modify | Delete
Design C	9858889658		Worth for your value	Available	Modify | Delete

Figure 80: New Product then displays like that

By clicking “User”, the user management will display:

Figure 81: User Management

The information of user is loaded from the database:



	Username	Password	Full Name	Phone	Address	Banking	Authority
Edit Copy Delete	BC00052	9698303a97436a439e9a5c11a268ebdb	Huynh Tran Nam Phuong	0895142684	13B Red Street, London	Fx051754225	Customer
Edit Copy Delete	BTEC	66d614886545170c0fabab01895715b5	Alex ShichYu	0775145685	11A Green Street, LA	Fx0512541155	Customer
Edit Copy Delete	example2	6ebe76c9fb411be97b3b0d48b791a7c9	This is Example	0985888745	ABC street, Can Tho	Ak058965896	Customer
Edit Copy Delete	hehe	e37f2c0f5f12db2220336f0cf5d2d25	Ohiyo Nihao	8895	Momo street, California	Ma089579547	Customer
Edit Copy Delete	htnp00052	12decbced71322693583af2ccbad7edb	Wan An	0916198548	70/69 CMT8, Can Tho	1013399410	Customer
Edit Copy Delete	Lavaa	fa0c7551445288d5c459d21216eb12e1	Lavia Mika	0998578	ASK street, Vung Tau	Om084759875	Customer
Edit Copy Delete	LavaAdmin	108bdb2d88149e3386910ac5f70c5195	Wiliam Moki	09178547895	ABC Street, Ho Chi Minh	Mk0588789	Admin
Edit Copy Delete	User123	25f9e794323b453885f5181f1b624d0b	Alixe Karma	0558966874	A123 BC street	Fx0512541155	Customer

Figure 82: User from the database

The user management display the information about: username of that user, the full name of that user, the phone number of that user, the address, the banking of that user. Besides that, admin can modify the user's information by clicking "modify".

***Note:** New user which is added will be default Authority as "Customer".

***Note 1:** The status of product is not decided by admin but by other information about the product, all the product when is added has "Available" status. Then, if the product is on the Order Detail table, then it is become "Out Of Stock".

***Note 2:** All the "Modify", "Delete" functions in the admin's side have the same action. When clicking the "Delete", the item will be deleted. When clicking the "Modify", there will be an alert to inform that user is on modify mode and the information of the selected item will be pushed into the inputs; then when admin finished the modifidation, he/she can press the "Add" button as confirm the modifidation. There will be a alert to inform that admin has changed the mode.

Figure 83: Deleting

Name	Price	Image	Description	Status	Edit
Example	1000		This is example for adding	Available	Modify | Delete
Design A	859875426987		First Item	Available	Modify | Delete
Design B	1000000000		Suitale for teenagers	Available	Modify | Delete
Design D	7777777777		New Arrive!	Available	Modify | Delete

1 2 3 Next

Figure 84: Deleted

	Name	Price	Image	Description	Status
Edit Copy Delete	Design A	9999	image/1669814002 as.png	First Item	Available
Edit Copy Delete	Design B	1000000000	image/1669812635 designA.png	Suitale for teenagers	Available
Edit Copy Delete	Design D	7777	image/1669812819 designc.png	New Arrive!	Out of Stock
Edit Copy Delete	Design E	74589	image/1669813465 designE.png	Nike and Nice	Available
Edit Copy Delete	Design F	1258963	image/1669815601 hehehe.png	You will love it	Available
Edit Copy Delete	Design H	85988	image/1669815367 designH.png	Appropriate for Sporty person	Available
Edit Copy Delete	Design K	8998	image/1669815452 designK.png	Old style	Available
Edit Copy Delete	Design M	7896	image/1669815548 Ldesign.pgn.jpg	Your lady will love it	Available
Edit Copy Delete	Example	1000	image/1669985147 cach-lam-banh-tai-yen.jpg	This is example for adding	Available

Figure 85: That product was deleted in the database

When admins use the delete function, the item which is in the same row of that “delete” will be deleted, other information of the table will be updated automatically. Be carefully, once the data has been deleted, there is no restoration.

Figure 86: Inform to be in modify mode

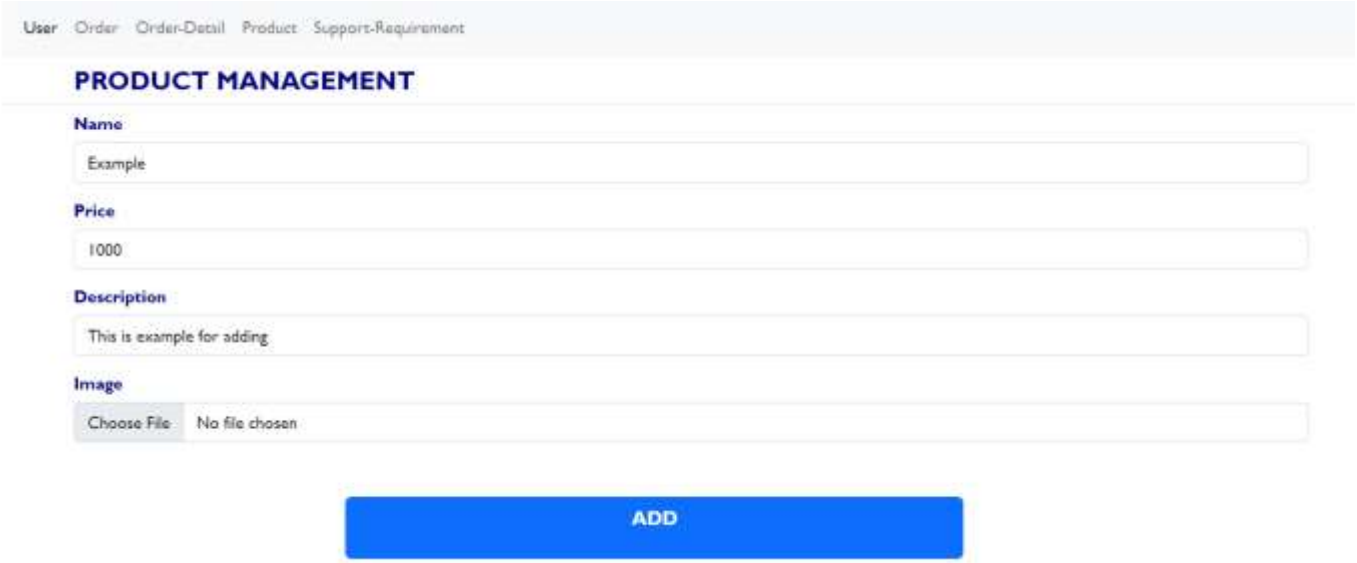


Figure 87: The information of selected item has been pushed up

Admins can click the “modify”, the item which is in the same that “modify” will be selected. When using the modify function, first of all, there will be an alert to inform the admins that they are in the modify mode, all the information of that selected item will be pushed into the input textboxes. From there, admins can modify the information of that selected item as they wish. After that, they can press the “Add” button to complete the changing for that item, then an alert to inform they are out of modify mode will be shown up. Confirm that alert, admin will back to the view mode of that page; at the same time, the information was changed and auto updated.

Figure 88: The inform out of modify mode

Name	Price	Image	Description	Status	Edit
Example	2000		This is example for adding	Available	Modify | Delete

Figure 89: The information of the item has been modified

	Name	Price	Image	Description	Status
Edit Copy Delete	Design A	9999	image/1669814002 as.png	First Item	Available
Edit Copy Delete	Design B	1000000000	image/1669812635 designA.png	Suitale for teenagers	Available
Edit Copy Delete	Design D	7777	image/1669812819 designc.png	New Arrive!	Out of Stock
Edit Copy Delete	Design E	74589	image/1669813465 designE.png	Nike and Nice	Available
Edit Copy Delete	Design F	1258963	image/1669815601 hehehe.png	You will love it	Available
Edit Copy Delete	Design H	85988	image/1669815367 designH.png	Appropriate for Sporty person	Available
Edit Copy Delete	Design K	8998	image/1669815452 designK.png	Old style	Available
Edit Copy Delete	Design M	7896	image/1669815548 Ldesign.pgn.jpg	Your lady will love it	Available
Edit Copy Delete	Example	2000	image/1669985147 cach-lam-banh-tai-yen.jpg	This is example for adding	Available

Figure 90: Changed product's information in database

***Note 3:** At Support Requirement, there is mainly to view, after admin solve the request, he/she can click “Change” to change the status.

Figure 91: Support Requirement

Clicking the “Change” will change the status of that request from “yes” to “no or “no” to “yes” depending on the present status, if the present status is “yes”, it will change to “no”, otherwise, if the present status is “no”, it will change to “yes”.

Figure 92: Changing status of support requirement (1)

Figure 93: Changed status support requirements

	ID	Time	PhoneNumber	Email	Status	Description
Edit Copy Delete	1	2022-11-01	058965412	huynh.namphuong0003040@gmail.com	yes	can't login
Edit Copy Delete	2	2022-11-10	087456920	daomaixuandi@conechxanhxanh.com	no	forget my password
Edit Copy Delete	3	2022-11-26	06589176	alice0510189@gmail.com	no	Can't change the username
Edit Copy Delete	9	2022-12-02	0916198548	phuonghtnBC00052@fpt.edu.vn	no	Need more ancient item

Figure 94: Changed status in database

III. Create a suitable Test Plan identifying key performance areas and use it to review the functionality and performance of your website. User Experience (UX) and User Interface (UI). (P7)

1. Test UX

Table 1: Text UX

Test Criterias	Detail
Responsive ability	Suitable for various platforms such as mobile or desktop computer. Every elenments can be fit by its self.
Loading time	Normal takes 2.5 seconds to load a page Evalute: Average speed
User reaction toward to website	Exellent

2. Test UI

Table 2: Text UI

Test Criterias	Detail
Website Theme's Color	Orange, Blue, Black, White
Font	Gill Sans
Image	High-Quality
Element	Fit with designed wireframe
Interface	Friendly with user

3. Test cases

Full image is at: https://docs.google.com/spreadsheets/d/1NhPxgEAZumts-4RGqEvCcvtp26EUDlAx/edit?usp=sharing&ouid=101307297689217960531&rtpof=true&sd=true/

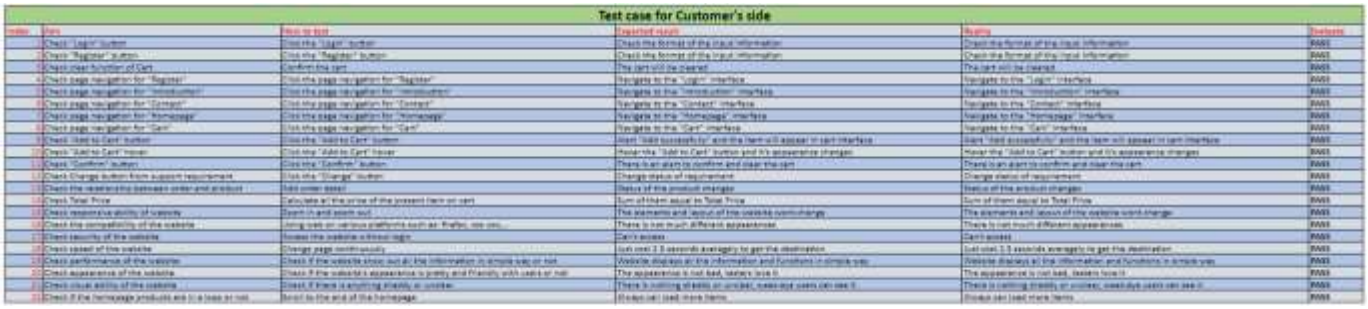


Figure 95: Test case for Customer's side

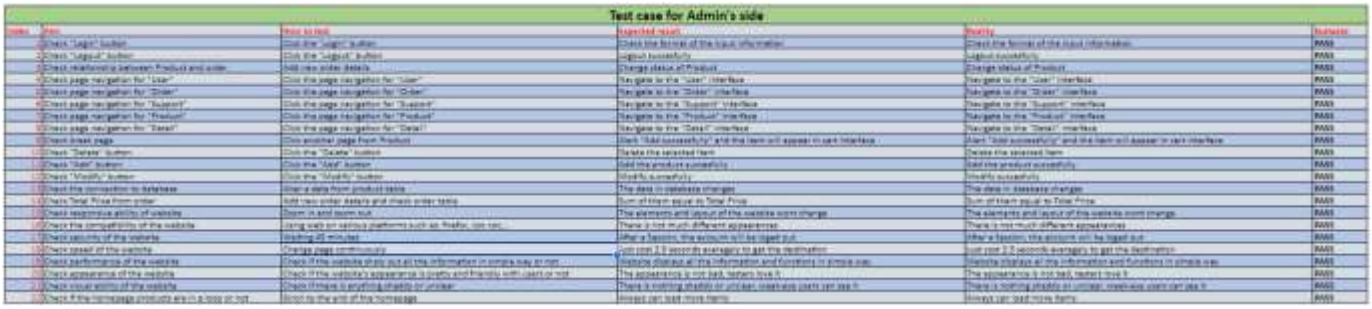


Figure 96: Test case for Admin's side

IV. Compare and contrast the multipage website created to the design document. (M4)

The multipage website that was built may cover the majority of the design paper, particularly in the UI section.

Firstly, the Customer pages:

- The developed website meets the needs of the client as specified in the design document and includes key features for users such as get information about my website, login, register, view product, request support, see profile and edit the profile. Add a product to your shopping cart, view detail of product, make changes, order for that product.
- By applying the same primary theme color for the developed website and design document, the color and layout requirements were satisfied. Layout-wise, the developed website successfully implemented the designed layout with name of website, menu, and a login/logout button.

Secondly, we take the finished website into comparison with the Admin Panel design document:

- The Admin Panel design document, like the Customer pages, has been implemented in every detail (including theme color, layout, function, and even menu).
- In contrast to the designed document, the size and the font of the words is different. Moreover, At the practice website, there is also the hover appearing.

- Each section of the Admin Panel (User, Support requirement, Product, Order, Order detail) includes the main functionalities View, Add, Edit, Delete and is very user-friendly with various platforms.

In short, the created website met the majority of the customer requirements outlined in the design document. However, there are still some issues that need to be investigated further and upgraded in order to create a better version of the website and improve the UX.

The comparation between design document and practice:

Design document:

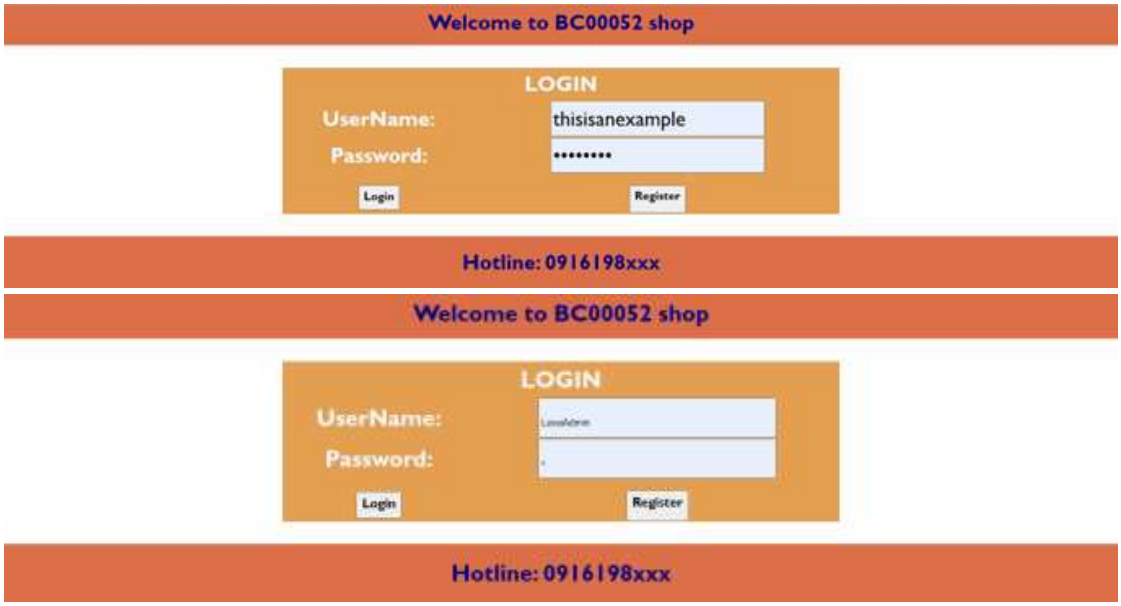


Figure 97: Comparation between design and practice (1)

Figure 98: : Comparation between design and practice (2)

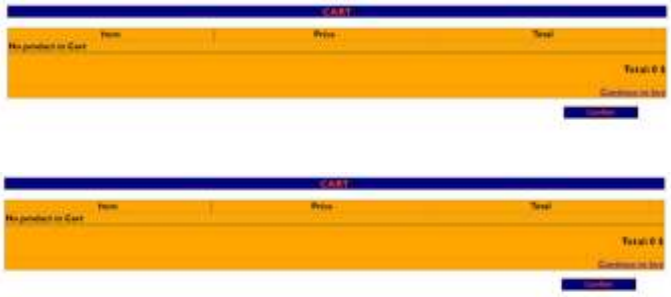


Figure 99: Comparation between design and practice (3)

Figure 100: Comparation between design and practice (4)

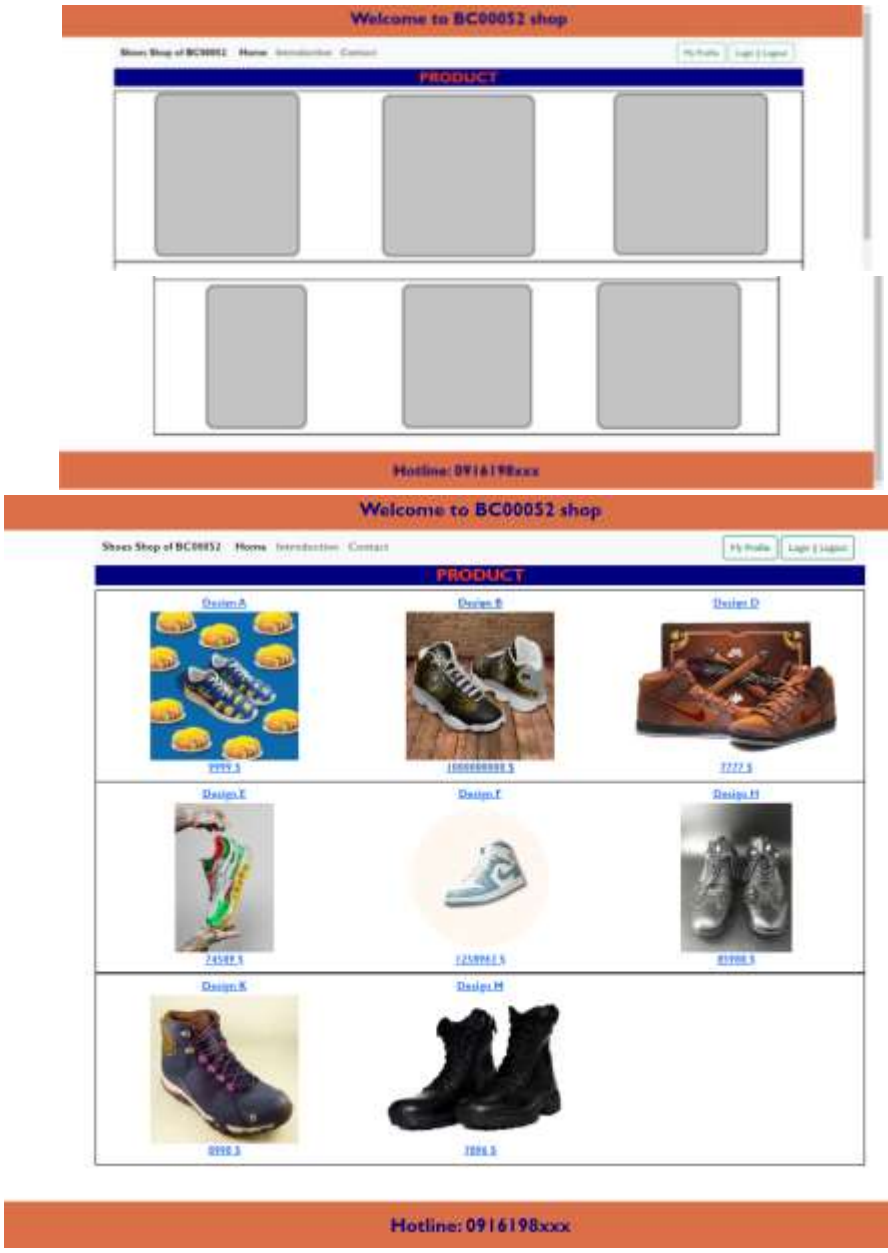


Figure 101: Comparation between design and practice (5)

Figure 102: Comparation between design and practice (6)

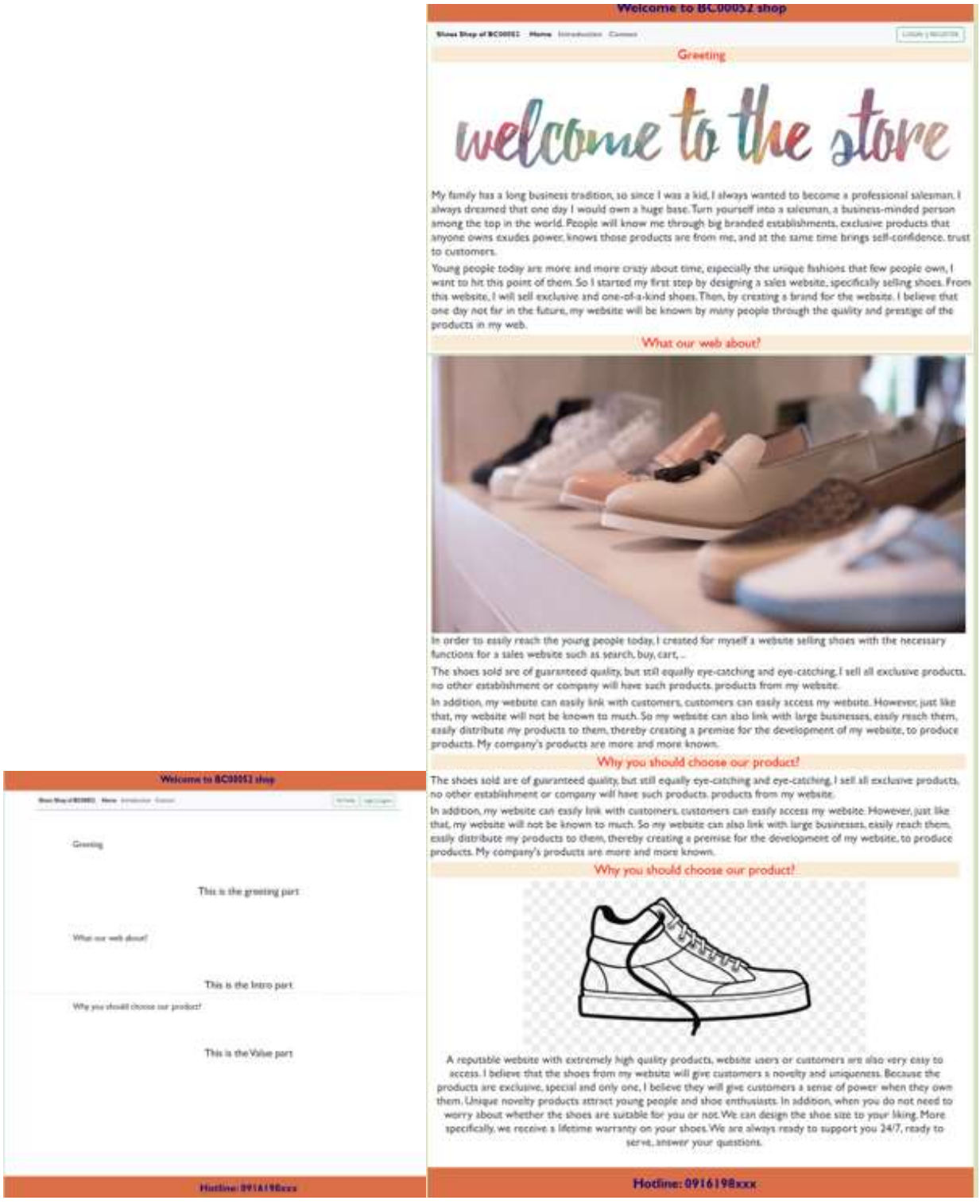


Figure 103: Comparation between design and practice (7)

Figure 104: Comparation between design and practice (8)

Figure 105: Comparation between design and practice (9)

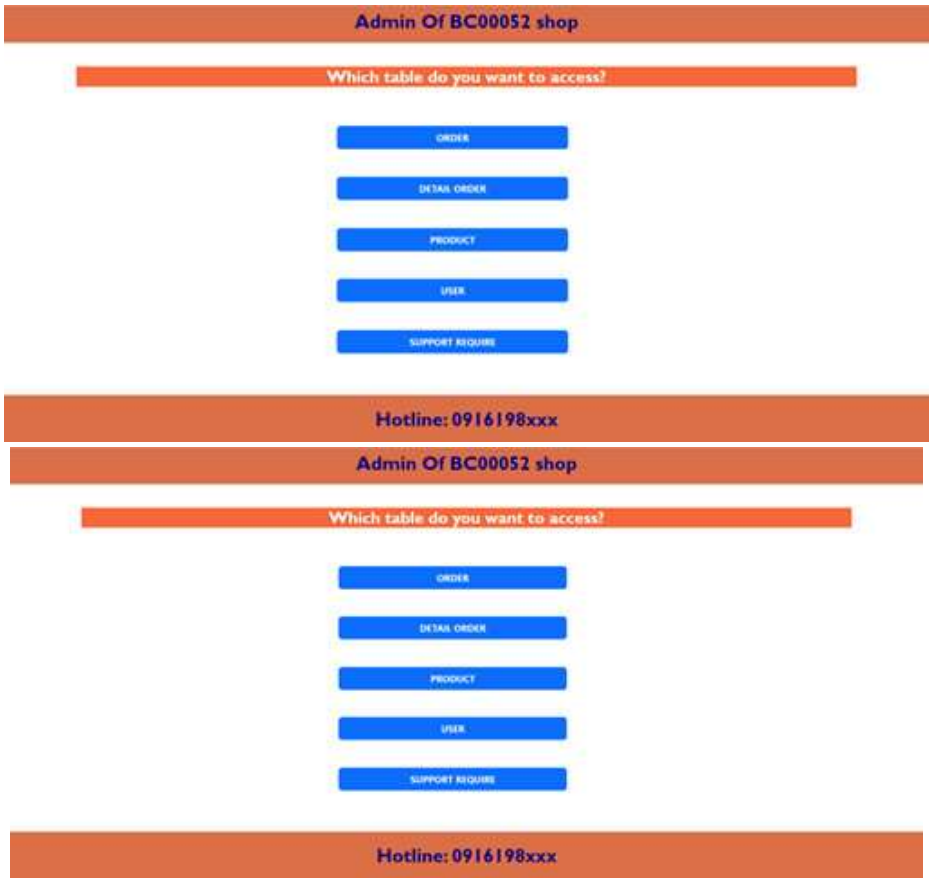


Figure 106: Comparation between design and practice (10)

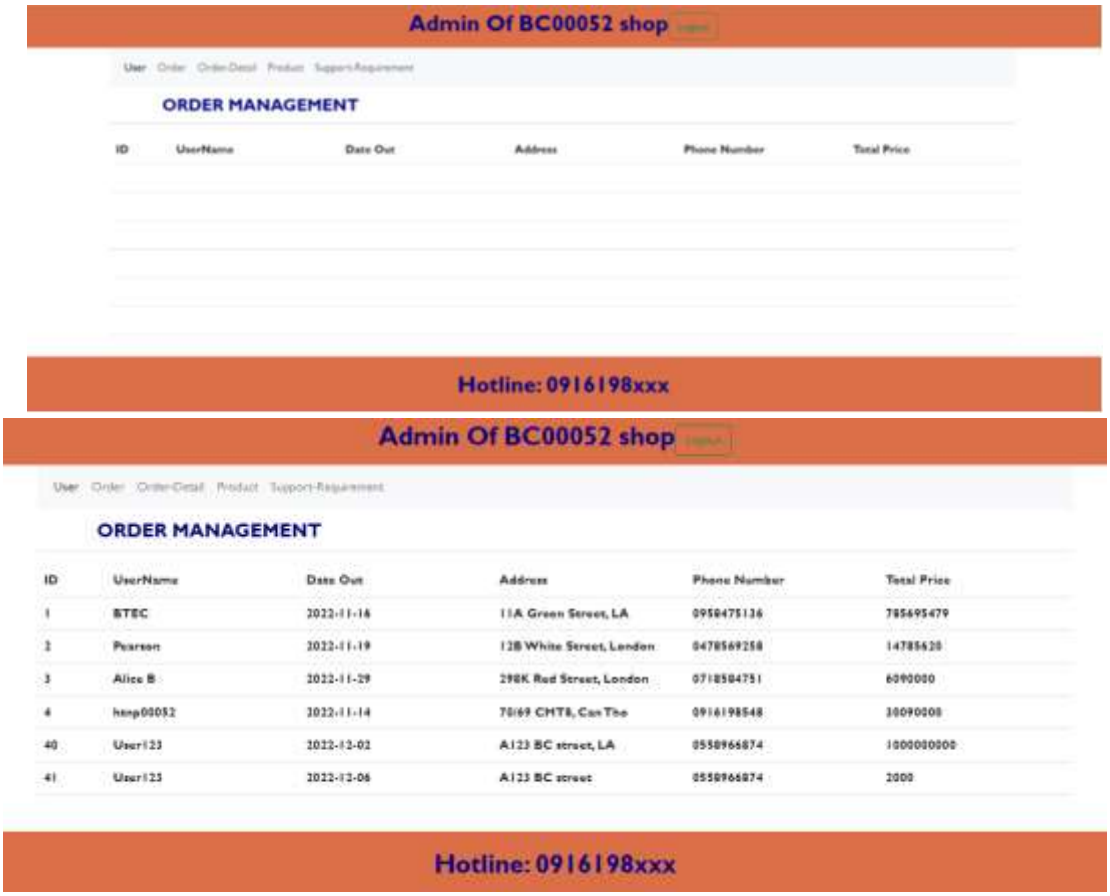


Figure 107: Comparation between design and practice (11)

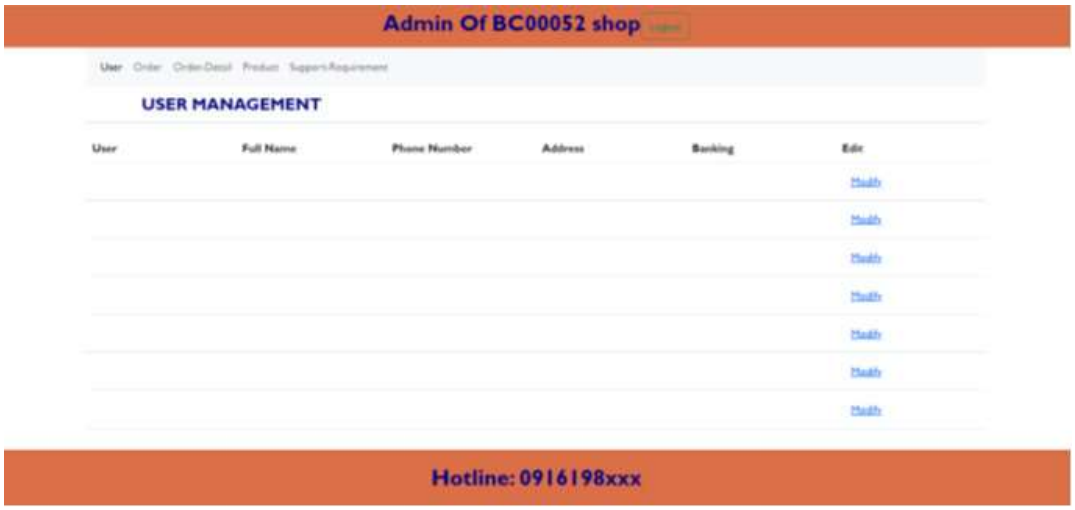


Figure 108: Comparation between design and practice (12)

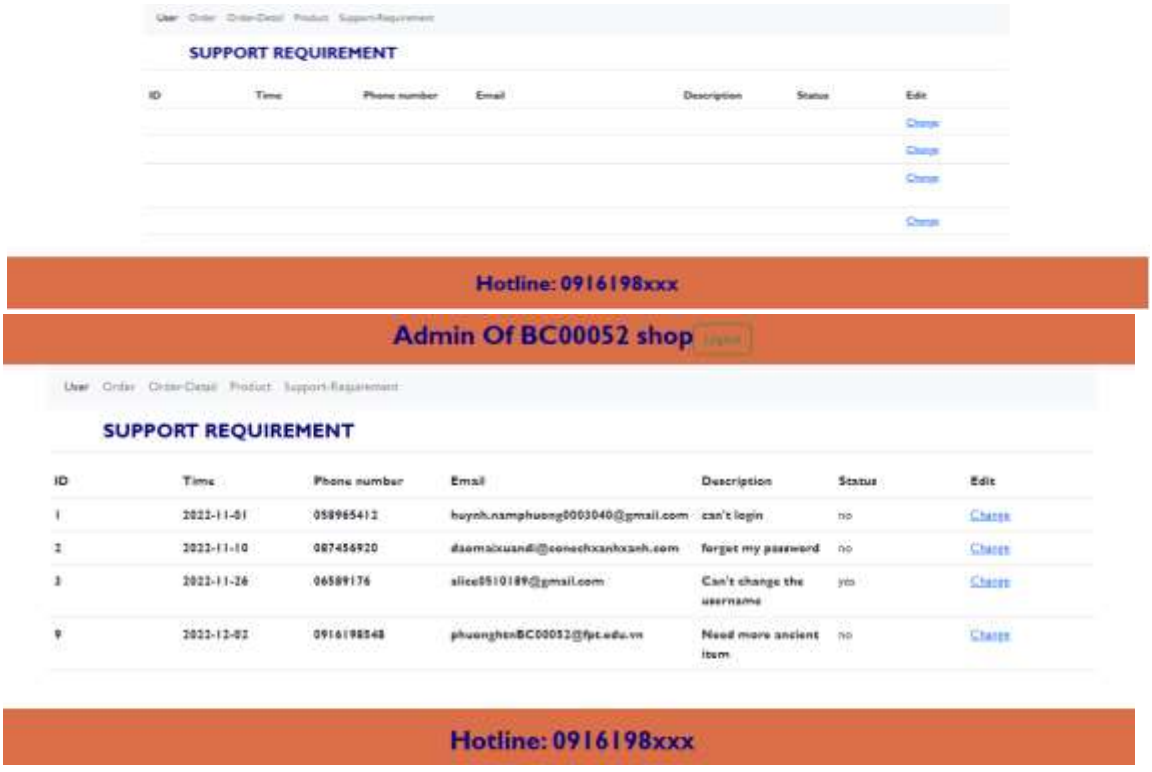


Figure 109: Comparation between design and practice (13)

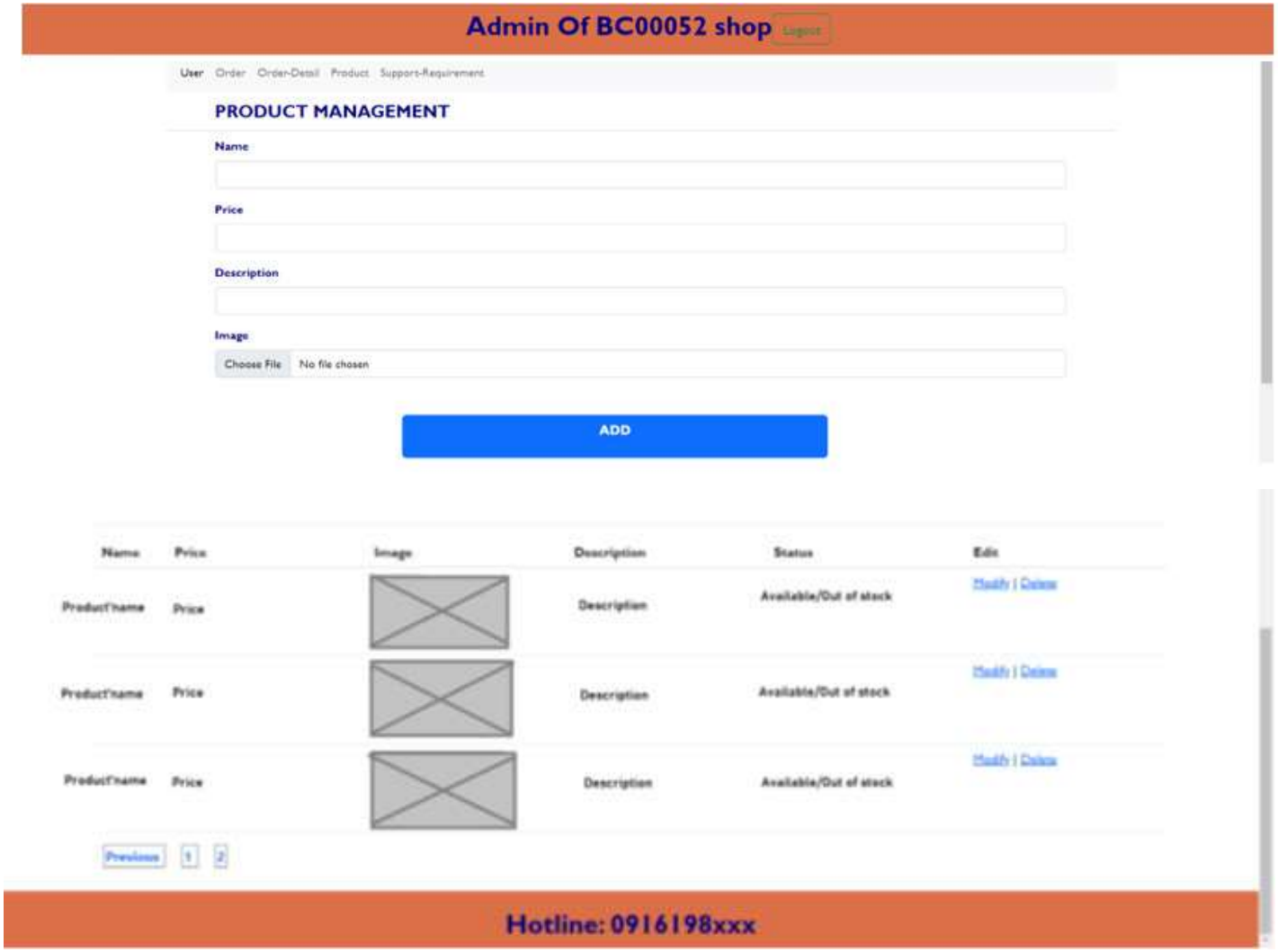


Figure 110: Comparation between design and practice (14)

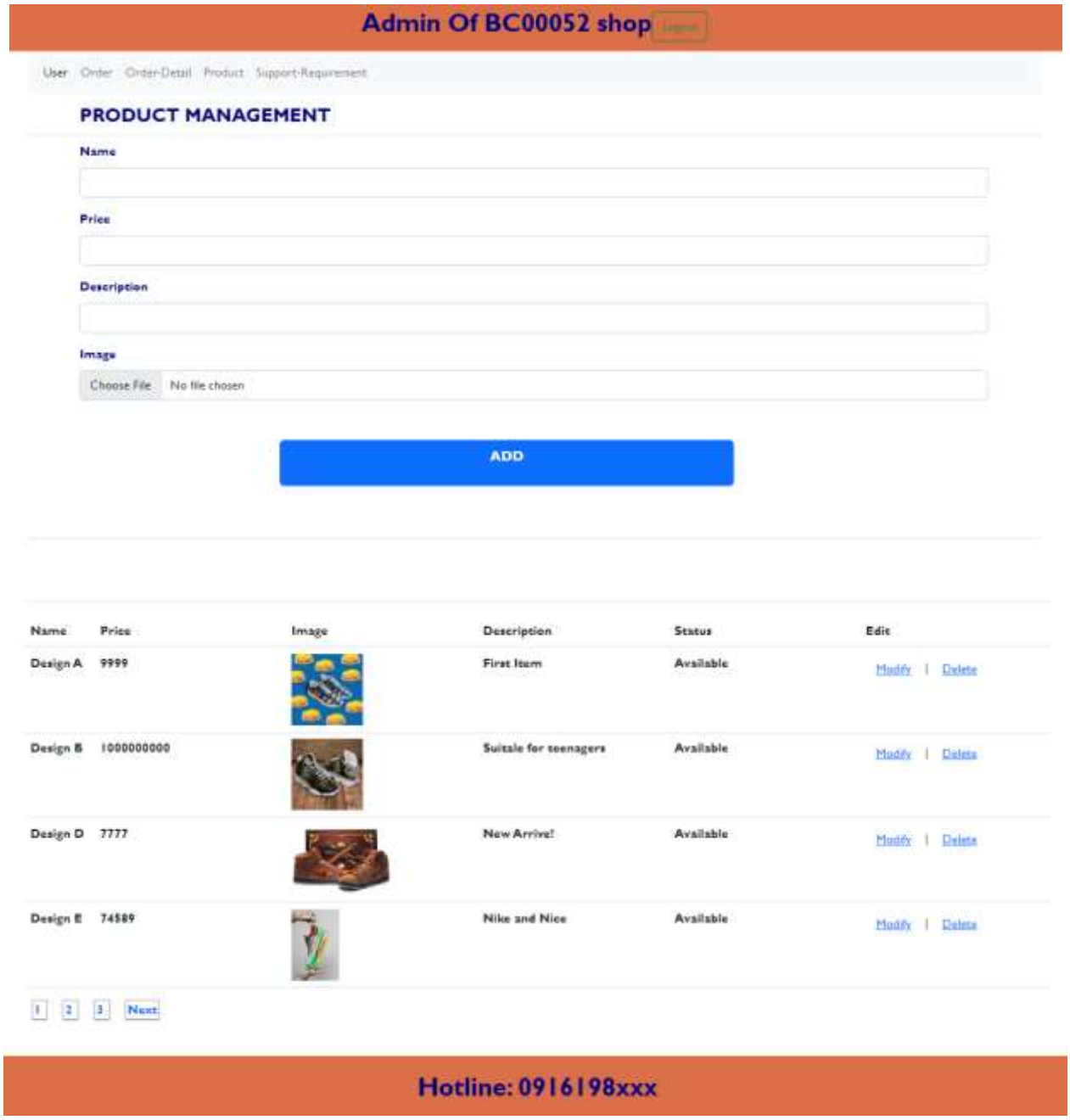


Figure 111: Comparation between design and practice (15)

Figure 112: Comparation between design and practice (16)

Evaluate: Thanks to the considered analysics: There is no differences between the design document and practice. As the practice design is prettier with the support of more css and image, properly layout arrangement .

V. Evaluate the Quality Assurance (QA) process and review how it was implemented during your design and development stages. (M5)

1. Definition of Quality Assurance

According to Alexander S. Gillis (2019):

Quality assurance (QA) is any systematic process of determining whether a product or service meets specified requirements. QA establishes and maintains set requirements for

developing or manufacturing reliable products. A quality assurance system is meant to increase customer confidence and a company's credibility, while also improving work processes and efficiency, and it enables a company to better compete with others.

Quality assurance helps a company create products and services that meet the needs, expectations and requirements of customers. It yields high-quality product offerings that build trust and loyalty with customers. The standards and procedures defined by a quality assurance program help prevent product defects before they arise.

Quality assurances uses one of three methods:

- Failure testing, which continually tests a product to determine if it breaks or fails. For physical products that need to withstand stress, this could involve testing the product under heat, pressure or vibration. For software products, failure testing might involve placing the software under high usage or load conditions.
- Statistical process control (SPC), a methodology based on objective data and analysis and developed by Walter Shewhart at Western Electric Company and Bell Telephone Laboratories in the 1920's and 1930's. This methodology uses statistical methods to manage and control the production of products.
- Total quality management (TQM), which applies quantitative methods as the basis for continuous improvement. TQM relies on facts, data and analysis to support product planning and performance reviews.

2. QA in website design

Testing website for errors, flaws, or other omissions that might have happened throughout the website development and design phases is known as quality assurance (QA). Regards to the website design, it includes testing whether the website is comprehensive, friendly and appropriate to all users.

The most important feature of QA is that it is an ongoing, detailed process, as opposed to regression testing, requirements testing, user testing, and other common types, which are more narrowly focused on particular issues.

Although some tests, like user testing, should only be carried out after the site has gone live, we should still carry out QA testing before publishing a website.

QA testing allows to confirm that website is ready for being taken in use and that users will enjoy their visit right away.

If websites for someone’s own use, QA testing is essential to ensure a great user experience. However, it is especially important to guarantee that the website which is given to clients is active if it built for clients.

Implementing comprehensive website design on a more detailed level QA testing will: Improve the functionality of your website by identifying potential problems. Help you appear more trustworthy and grow your brand (because having a buggy site makes you look terrible).

Surely, it help you save labor, time and money thanks to the fact that you can catch issues before they are incurable.

There are some point we need to pay attention before take into quality assurance:

- Study principles, whether they be particular ones like Tufte's or Tognazzini's or general ones like the golden ratio.
- Keep accessibility in mind from the beginning of the design process. Testing all of the versions and after even the smallest change. This make us follow the flow and easy to realise the mistake.
- Make sure it is pretty on various platforms.

3. QA in website development

The basis of information offerings and the differentiation between amateur and professional website management are maintenance and quality assurance. It is therefore hard to ignore quality assurance as a process that chooses the actions to be carried out with different regularity in recommendations for high-quality web design. According to Sergei Davidov (2021), there are some stages to carry on:

a. Form Input and Validation

If you have forms (which most websites will), it's important to test the configuration of your form(s) to verify inputs, field validation, and form functionality.

For example, if you have a "Name" field, you don't want to let users enter numbers in that field (and vice versa). You'll also want to make sure that "Required" fields are marked as required. Check for:

- Data input validity.
- The allowed values in each field.
- What happens when there are invalid inputs (e.g. does the user get a message so they know what's wrong?).

By going this, you can ensure that the form collects all the data that it needs and that the data is in the proper format.

b. HTML/CSS Validation

Creating validated HTML and CSS code is important to debug issues, ensure future-proofing, simplify future maintenance, and just generally maintain good best practices.

To validate your site's code, you can find a number of free online tools that let you validate a page by entering its URL. Some popular options are the W3C's Markup Validation Service and CSS Validation Service.

c. Cookie Testing

Cookies are files that are stored on a visitor's browser when they visit your site. For example, if you log in to a site, that site will add a cookie for your login session.

To QA test your site's cookies, you should test your website in various scenarios, such as testing with cookies enabled and cookies disabled to make sure everything still works. You should also test your cookies for security – Geekflare's tool can help you catch potential cookie security issues.

d. Link Testing

Broken links are horrible for user experience and also bad for SEO – a double whammy that makes it very important to avoid them.

To test for broken links, you can use a free plugin like Broken Link Checker or you can use a cloud-based tool like the free Ahrefs broken link checker.

Once you find the offending links, you can change the link or set up a redirect to send users to the right spot if you're unable to change the link for some reason.

Beyond testing for broken links, you should make sure that key links are going to the proper page (even if they aren't broken). For example, test all the links in key navigation areas to make sure they go to the proper destination.

e. Website Security

Website QA for security is important so that you can assess your site for potential security vulnerabilities and prevent future issues.

There are several different issues to check here:

- Test your SSL/HTTPS connection to make sure it's working properly – you can use Qualys's free tool to validate. Also, make sure that all HTTP traffic is redirected to the HTTPS version of your site.
- Make sure users can't download files or access pages that are supposed to be restricted.
- Check CAPTCHAs for proper functioning.
- Make sure users cannot log in with an invalid username or password.

f. Mobile Responsiveness

Mobile-responsive design is essential nowadays, especially given that more than half of Internet traffic happens on mobile devices and Google has moved to a mobile-first index.

However, responsive design can also introduce some QA issues, such as buttons/links that are difficult to tap.

To test your site for issues, you can use Google's Mobile-Friendly Test. It will list out specific issues that you can fix.

g. Accessibility

Creating an accessible website is important for both creating a better experience for all visitors and also for legal compliance in some jurisdictions.

When it comes to accessibility, validating your site against the Web Content Accessibility Guidelines (WCAG) is a great place to start. W3C maintains a list of web accessibility evaluation tools that you can use to help you test your site. Website accessibility is an important and complex topic, so we also have some dedicated guides to help you out.

h. UI Testing

UI testing involves testing the design and interface of your website to make sure that it's consistent and it also looks correct in all browsers and situations. In this area, you should test:

Design consistency – are the colors, fonts, font sizes, layouts, buttons, etc. all consistent across your entire site?

Screen resolutions – does your site look good at all resolutions? It's not just small resolutions – many visitors now have 2K or even 4K screens, so your site needs to work at high-resolution.

Browsers – does your site look correct in all browsers? You can use tools like BrowserStack or CrossBrowserTesting to quickly test variables.

Localization – if you have a multilingual website, do key interface elements still function properly? It's easy for layouts and interface designs to get messed up when translating content because the translation might take up more or less space.

k. Function Testing

Functional testing is a sort of black box testing in which the test cases are based on the software application/component under test's specifications. Functions are tested by entering inputs and checking the output, with little consideration for the application's internal structure.

It is a procedure that attempts to identify inconsistencies between the software's external specifications and the reality that the software offers. The external software specification is the exact specification of the software's behavior from the user's point of view.

There are some method to do function testing: Equivalence Class Partitioning, Decision Tables, Pairwise, domain analysis, Use case.

VI. Critically evaluate the design and development process against your design document and analyse any technical challenges. (D2)

1. Evaluate the design document and development process

The design document is seemed to be the fundamental of complete website, which is not much pretty designed and easy to know the way the website work. Besides that, it helps me follow the flows of the web work and knows exactly which function is needed or what is needed to built up or added. Not only help me (the present-developer for this website), but it is also able to support the next developers who will be in charged of the website. From my point of view, the design document is necessary for the website and should not be avoided.

The development process is based on the flows of the design document, which will have the same functions which are described in the design document. At this stage, developer can make the design document become more completed such as prettier, easier to access, highlight the important marks,… When in this stage, we will face some of problems, which makes me feel confused and need the support from other people.

2. The differences

In the design document, the theme color seems to work together with the font, which makes the website pretty and appropriate with user. However, when take in use, i realize that the font size of the total is not appropriate and I should take the synchronization of all the elements. Moreover, when completing the website, there are some feedbacks about the cart should be an icon, which makes I reform the cart tab into an icon at the right side of the menu. Addition to that, there has been a few of comment about the align of the text and those decorations, which changes the appearance from the design document into present website look.

3. Challenges/difficulties in web development

While developing this website, there are a lot of challenges. I faced a hard challenge while solving the cart, there are a lot of new knowledge and need to take it into considering and cost a lot of time just to know how to deal with it. Because my website is using the Bootstrap as the only front-end framework so it is hard to decorating something as the css of it’s self is set as the default. Moreover, it costs me a long time in order to relize and fix the logic flow of the website due to the fact this is my first fullstack developing website.

Then, when designing may not have anticipated all possible situations so that customer doesn't use the website as the expected way. For example, maybe the customer doesn’t know that adding to cart

requires login first or the customer uses the contact function to ask for creating an account before going to login interface and registering by himself/herself. This is just relized when the website is taken into practice.

Nextly, the design process is made in personal computer, then once taking the website into practice, more and more users which various platforms and various operating systems will use it and more and more problems will comes up. They are about the differences between those operating systems make the website doesn't work correctly or have some bugs, they are also about when that computer has the tools which blocks the javascripts, or the user is using the mobile platform or simulator platforms with various version. All of these differences in technology can make the challenge.

In addition, because my website is used to sell unique limited product then the database of itself is very "strange" and need to take into considering every table has been established, the relationships between those become more different from other selling website database.

VII. Critically evaluate the results of your Test Plan and include a review of the overall success of your multipage website; use this evaluation to explain any areas of success and provide justified recommendations for areas that require improvement. (D3)

1. Test result evaluation, review overall success of multipage website

After take my test into critical evaluatation, I claim that my test plan is almost cover all the situation of customer's side and admin's side. It tested the ability of scalability, the database connection, the relationship between elements,… on the admin's side; it also tested the performance, the security, the linking,… on the customer's side. However, I can't deny that my test plan is not complete perfect, it still miss some point such as neither tested ethe enduration of website (such as how about letting 1000000000 people access my website at the same moment) nor tested with various operation systems,…

Even so, my website met the requirements of both customer's side and admin's side and it can be considered as overall success of multipage website. It can connect multipage, user can access a page from a page, a page by a page and at the same page can access to different pages. Each page has it's main function such as: introduce, contact, browse shop, manage an particular element,… Besides that mutilpage website has the same theme's color, which is has the signal for it's own. All of that make the success for multipage website.

2. Provide justified recommendations of improvements

Although the website's designed carefully, it still has had to be improved. In the future, surely I need to use the https protocol for my website which can encrypt the information and make the website become safer. Moreover, I will learn more framework such as Angular or Node.js and Semantic UI to make the website work better and be prettier. More function such as search, online chat, chatbot should be added. Besides that, I will use SEO knowledge to help my website becomes well-known and can sell more and more product. In addition, I will contact with other website owner to get more back links in order to make my website more reliable. Besides that, I will create more functions in order that the customer can pay by banking and can follow up the order in delivering.

Apart form all above, the design and appearance of the web should be taken into considering to get the prettier and up dated interface regularly.

3. Pros and Cons

- **Cons**

  The website still have some constraints such as:
  - The low security.
  - The information in this website is not encrypt.
  - Don't have the mobile platform.
  - Don't have video or gift so the website is not lively.
  - There is no sending message to remind users about the website.
- **Pros**
  - Friendly-user interface.
  - Easy to manage.
  - Meet the basics of an online sale website.
  - Can be upgraded easily.
  - Speed of the website is good.
  - Simple using.

C. Conclusion

This writing has described the design and develop process of a website selling shoes. Moreover, it also show how the website works and it's functions. To get this result, tools and programming languages such as HTML, CSS, JS and PHP have been applied appropriately. Every steps or designs of each stage have been take into detail and practice. After that, the testing made sure everything can be in used. Generally, gaining knowledge of Quality Assurance will make the website become better with more and more upgraded functions.

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