



CAPSTONE PROJECT REPORT

Report 3 – Software Requirement Specification

– Hanoi, May 2023 –

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I. Record of Changes

Date	A* M, D	In charge	Change Description
29/5/2023	A	KienNT	Product Overview, Functional Requirements, Non-Functional Requirements, Requirement Appendix
29/5/2023	A	ChinhLK	User Requirements
31/5/2023	M	KienNT	Product Overview, Functional Requirements
31/5/2023	M	ChinhLK	User Requirements
32/5/2023	M	KienNT	Functional Requirements, Non-Functional Requirements
2/6/2023	M	KienNT	Functional Requirements
2/6/2023	M	ChinhLK	User Requirements

*A - Added M - Modified D - Deleted

II. Software Requirement Specification

1. Product Overview

BookStore Management is a website that helps stores sell online and manage sales on a website application platform. The context diagram below illustrates the entities present in the system, how the entities and the system are linked. The system is expected to fully support customers to purchase online and find information about books.

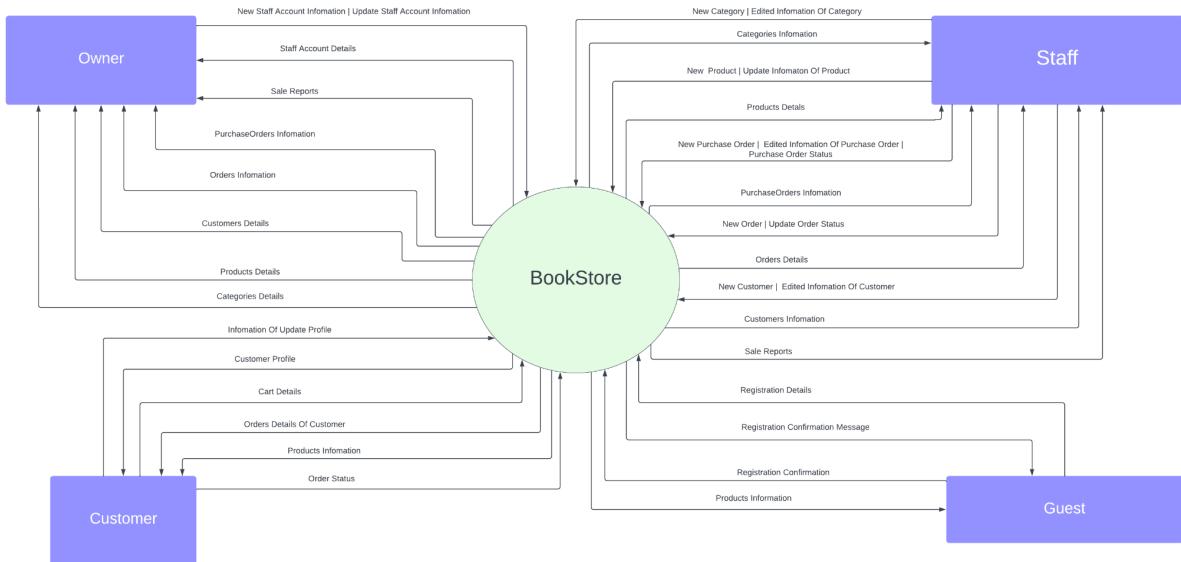


Figure 1.1: Context diagram

2. User Requirements

2.1 Actors

#	Actor	Description
1	Owner	The one who can manage and view all system activities such as account staff management, overview of sales performance, view customers, orders, purchase orders ...
2	Staff	The one who can manage order, manage product, manage categories, manage purchase order, manage customers.
4	Customer	The one who interacts via the e-commerce website, can do what guests can, in addition to log in to their account, create order, set information in profile and set delivery addresses.
5	Guest	The one who interact via the e-commerce website, register account to become customer, view products, add products to cart

2.2 Use Cases

2.2.1 Diagram(s)

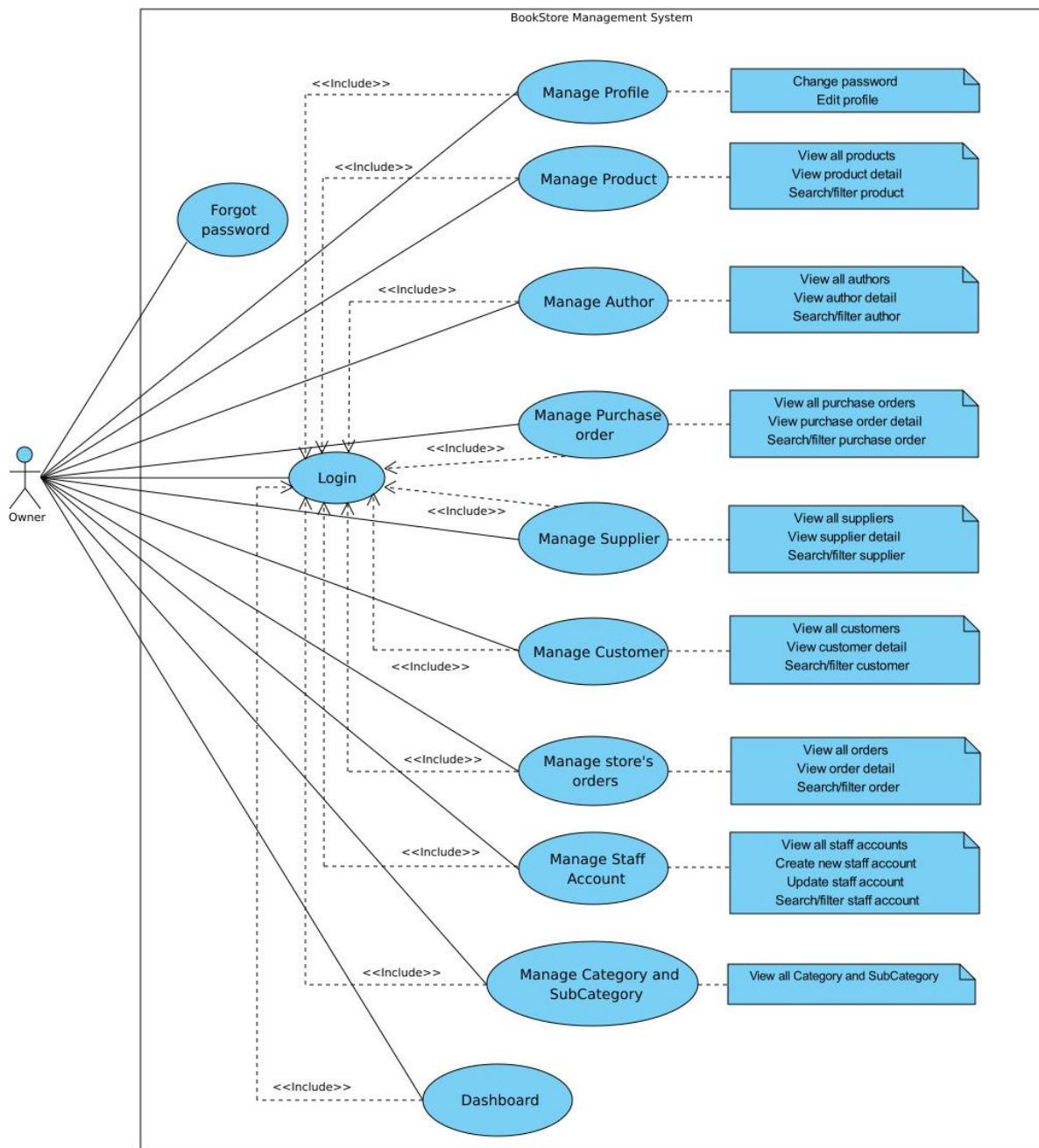


Figure 2.2.1.1: Owner Details Use Case Diagram

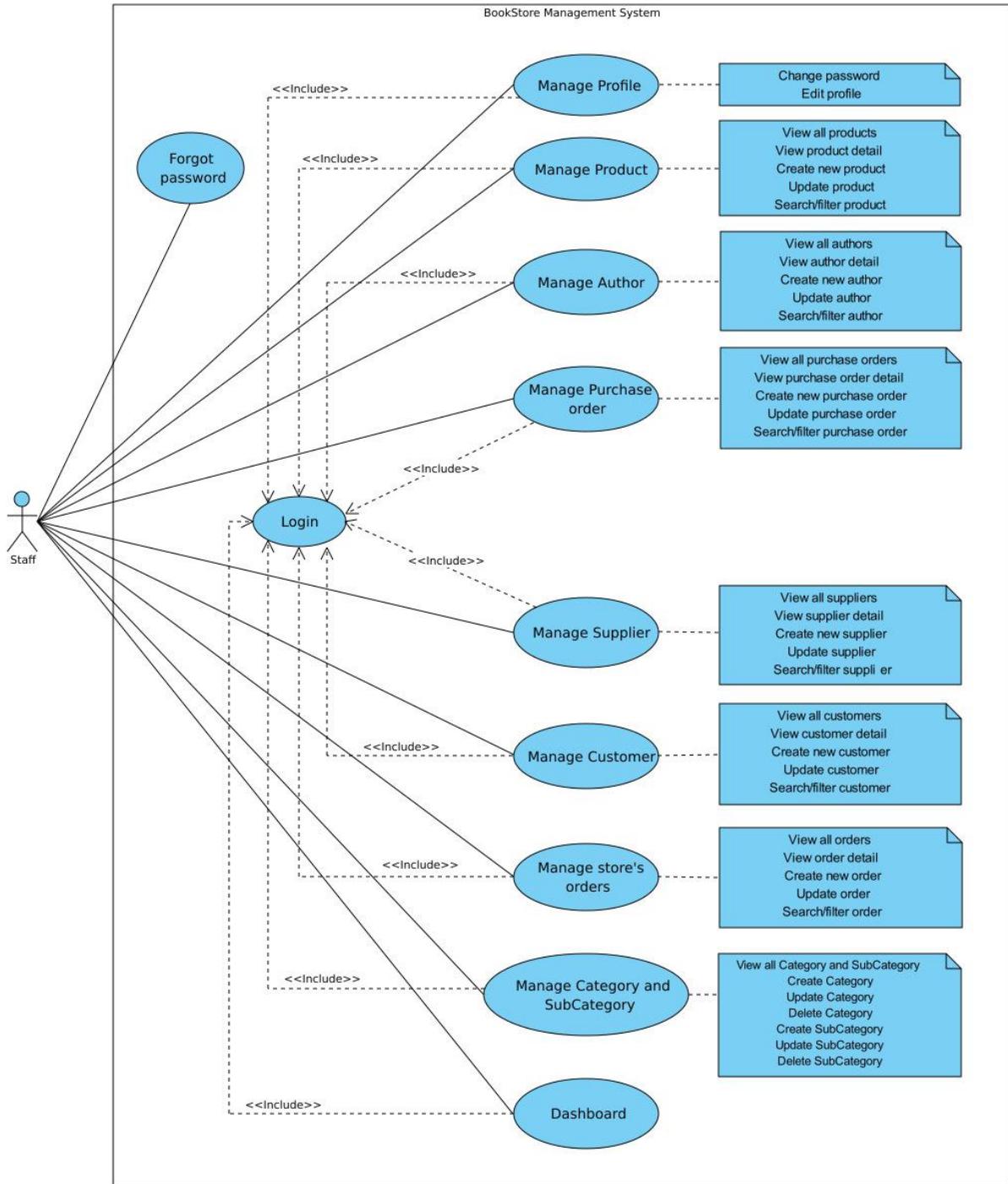


Figure 2.2.1.2: Staff Detail Use Case Diagram

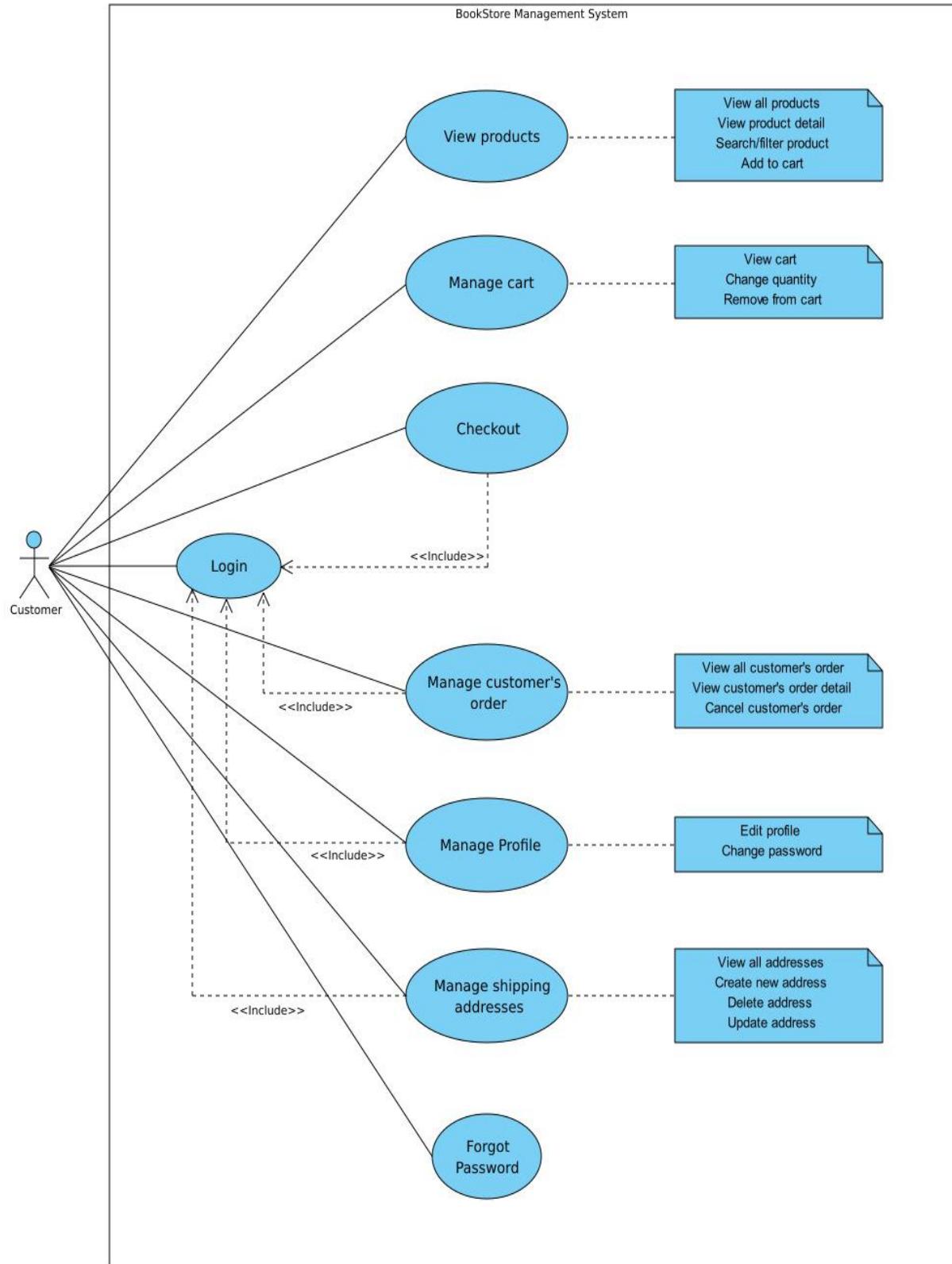


Figure 2.2.1.3: Customer Detail Use Case Diagram

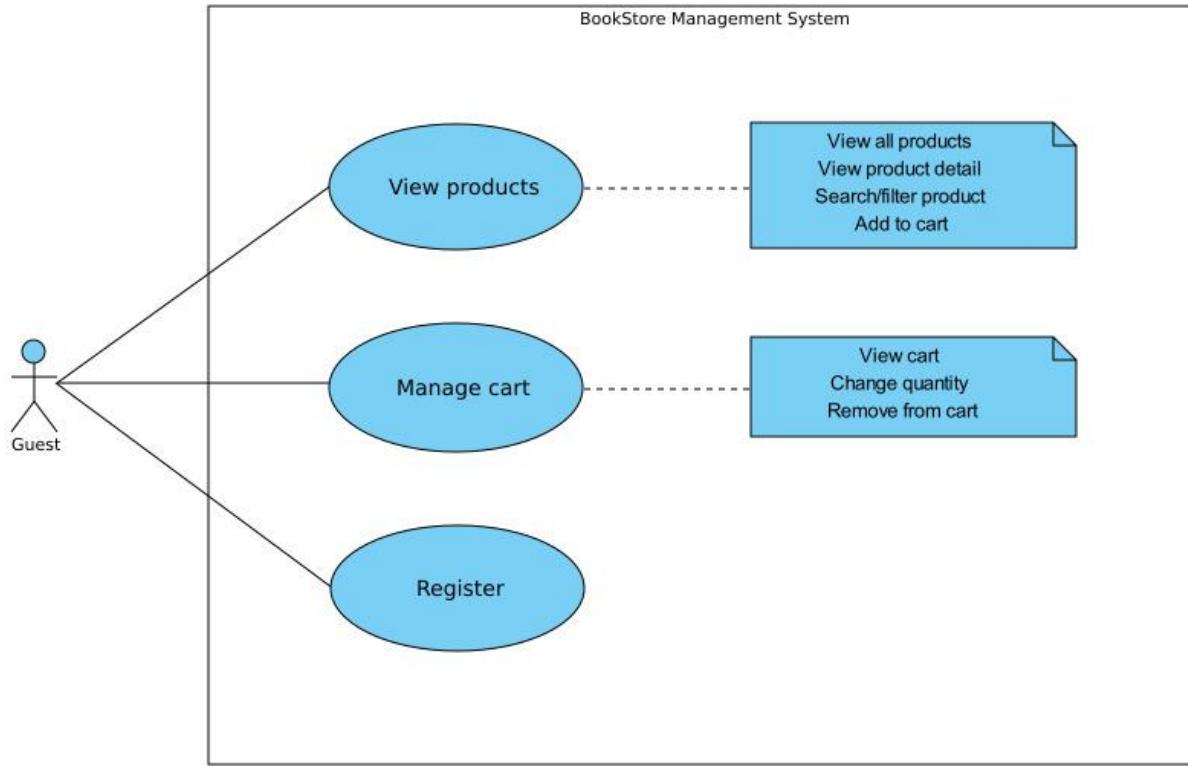


Figure 2.2.1.4: Guest Detail Use Case Diagram

2.2.2 Descriptions

ID	Use Case	Actors	Use Case Description
01	Register	Guest	Guests can register a new account.
02	Login	Customer, Owner, Staff	User have account login system
03	Forgot password	Customer, Owner, Staff	User can get their account by input email when they forgot account's password
04	Edit profile	Customer, Owner, Staff	User can update their profile
05	Change password	Customer, Owner, Staff	User can change their password
06	View all staff	Owner	Owner can view all staff in system
07	Update staff account status	Owner	Owner can activate or deactivate the staff account in system
08	Search/filter staff	Owner	User can search or filter list account
09	View all product	Owner, Staff	User can view all product in system
10	View product detail	Owner, Customer Staff	User can view detail of the selected product
11	Create new book	Owner, Staff	User can create and add new book to system
12	Create new stationery	Owner, Staff	User can create and add new stationery to system
13	Update product	Owner, Staff	User can update information of the product
14	Search/filter product	Owner, Customer Staff	User can search or filter list product in store
15	View all orders	Owner, Staff	User can view all order in system
16	View order detail	Owner, Staff	User can view detail of the selected order
17	Create new order	Owner, Staff	User can create new order in system
18	Update order	Owner, Staff	User can update information of the order
19	Search/filter order	Owner, Staff	User can search or filter list order in store
20	View all purchase orders	Owner, Staff	User can view all purchase order in system
21	View purchase order detail	Owner, Staff	User can view detail of the selected purchase order
22	Create new purchase order	Owner, Staff	User can create new purchase order in system
23	Update purchase order	Owner, Staff	User can update information of the purchase order
24	Search/filter purchase order	Owner, Staff	User can search or filter list purchase order in store
25	View all supplier	Owner, Staff	User can view all supplier in system
26	View supplier detail	Owner, Staff	User can view detail of the selected supplier
27	Create new supplier	Owner, Staff	User can create new supplier in system
28	Update supplier	Owner, Staff	User can update information of the supplier
29	Search/filter supplier	Owner, Staff	User can search or filter list supplier in store
30	View all customer	Owner, Staff	User can view all customer in system

31	View customer detail	Owner, Staff	User can view detail of the selected customer
32	Create new customer	Owner, Staff	User can create new customer in system
33	Update customer	Owner, Staff	User can update information of the customer
34	Search/filter customer	Owner, Staff	User can search or filter list customer in store
35	View all author	Owner, Staff	User can view all author in system
36	Create new author	Owner, Staff	User can create new author in system
37	Update author	Owner, Staff	User can update information of the author
38	Search/filter author	Owner, Staff	User can search or filter list author in store
39	View products	Customer, Guest	User can view all active product
40	Add to cart	Customer, Guest	User can add the selected product to their cart
41	View cart	Customer, Guest	User can view their cart
42	Change quantity	Customer, Guest	User can change quantity of product(s) in cart
43	Remove from cart	Customer, Guest	User can remove the selected product from cart
44	Checkout	Customer	User can create order from their cart
45	View all customer's order	Customer	User can view all of their orders
46	View all customer's order detail	Customer	User can view information detail of the selected order
47	Cancel customer's order	Customer	User can cancel an incomplete order
48	View all addresses	Customer	User can view all of their shipping address
49	Create new address	Customer	User can create new shipping address
50	Delete address	Customer	User can delete selected shipping address
51	Update address	Customer	User can update selected shipping address

Figure 2.2.2.1: Use Case Description table

3. Functional Requirements

3.1 System Functional Overview

3.1.1 Screens Flow

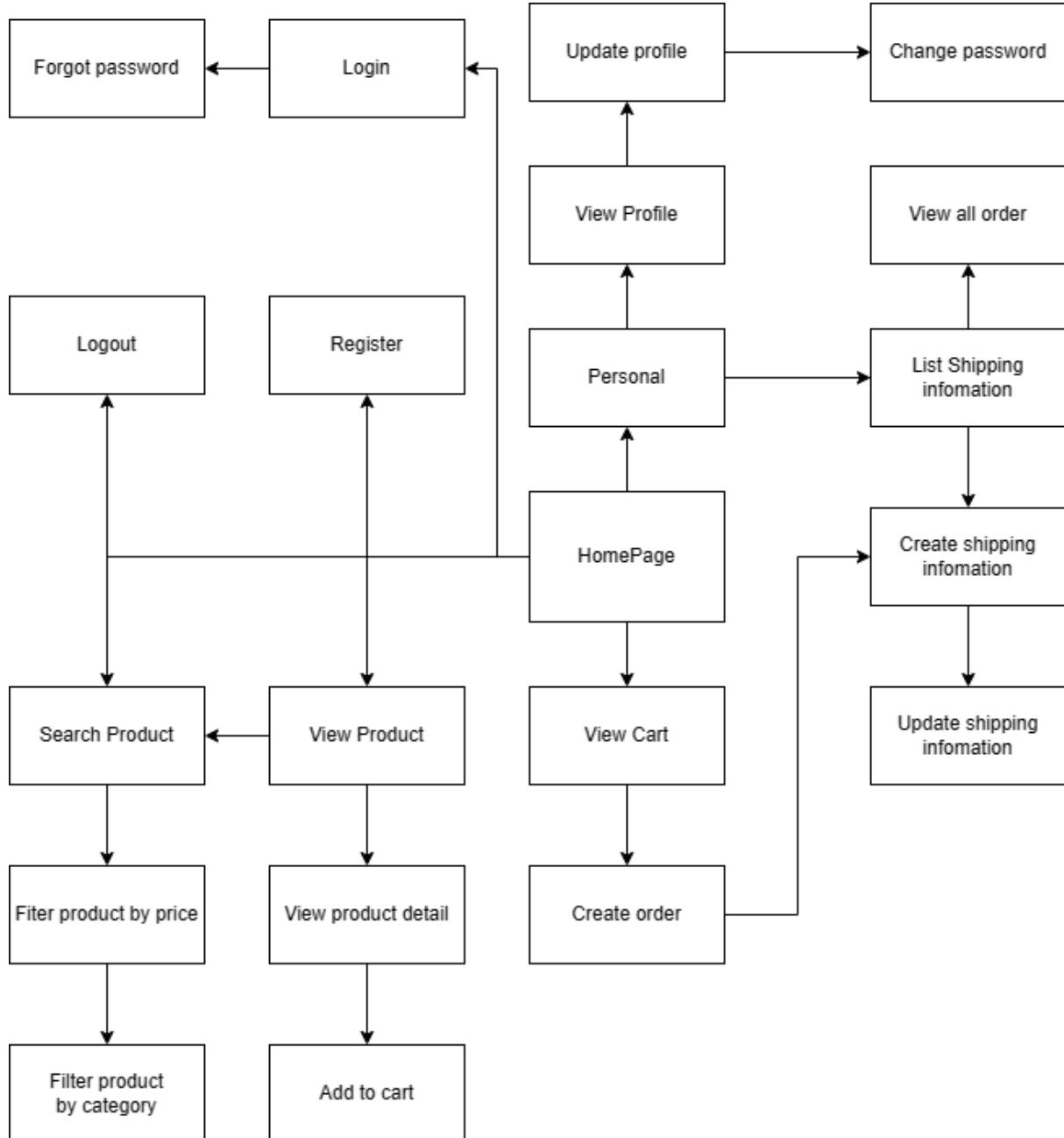


Figure 3.1.1.1: Customer Screens flow

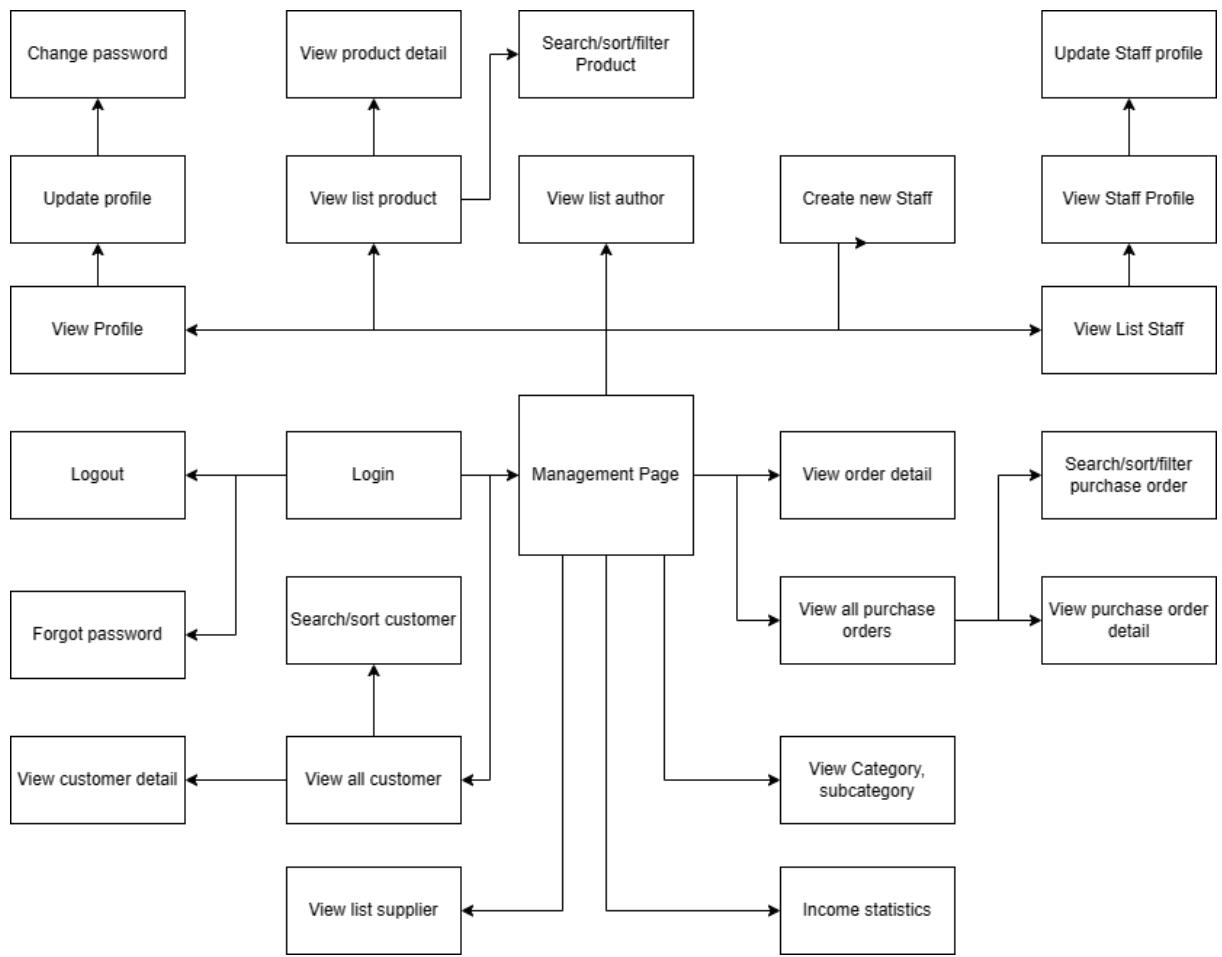


Figure 3.1.1.2: Owner Screens flow

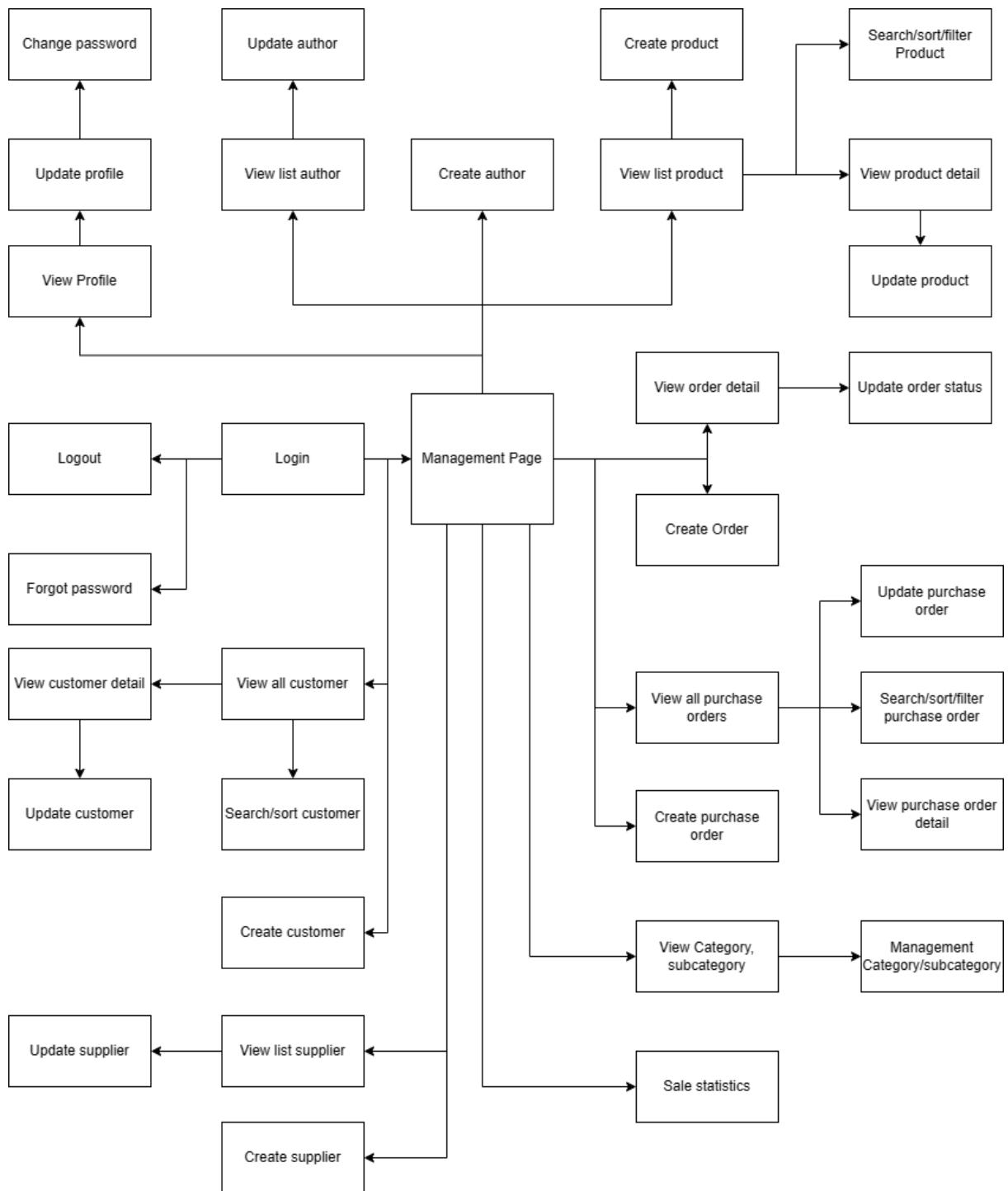


Figure 3.1.1.3: Staff Screens flow

3.1.2 Screen Descriptions

#	Feature	Screen	Description
1	Authen&Author	(Customer)Login with email & password	The customer uses this screen to login to the website.
2	Authen&Author	(Customer)Logout	The user logs out to end the working session in the browser.
3	Authen&Author	(Customer)Recertified email	The user reconfirms the email after confirming the email is expired.
4	Authen&Author	(Customer)Forgot password	The user uses this screen to reset the password.
5	Authen&Author	(Customer)Confirm email	The user confirms the email when registering.
6	Authen&Author	(Owner/Staff)Login with email & password	The manager uses this screen to login to the website.
7	Authen&Author	(Owner/Staff)Logout	The manager logs out to end the working session in the browser.
8	Authen&Author	(Owner/Staff)Forgot password	The Manager uses this screen to reset the password.
9	Authen&Author	(Guest)Register	The user uses this screen to register an account to buy products.
10	User Management	(Customer)Change password	Customers can change the password.
11	User Management	(Customer)View profile	Customers can view user details.
12	User Management	(Customer)Update profile	Customers can change their profile information.
13	User Management	List shipping information(Customer)	Customers can view their list shipping information
14	User Management	Create shipping information(Customer)	Customers can create new shipping information.
15	User Management	Update shipping information(Customer)	Customers can edit their shipping information.
16	User Management	(Owner/Staff)Change password	Owner/Staff can change the password.
17	User Management	(Owner/Staff)View profile	Owner/Staff can view their information details.
18	User Management	(Owner/Staff)Update profile	Owner/Staff can change their profile information.
19	Manage product	Create product	The user can add a new product to the inventory.
20	Manage product	View list product	The user can view all the products in the system.
21	Manage product	Search/sort/filter products	The user can search and filter the product by name, barcode,...
22	Manage Product	View Product Details	The screen displays all the details of the product.

23	Manage product	Update product	The user can edit the product's detailed information.
24	Buy product	Search/filter products	Customers can search and filter the product by name, category,...
25	Buy product	Home Page	Customers can view all the products in the system.
26	Buy product	View product details	Customers can view all the details of the product.
27	Buy product	Add product to cart	Customers can add products to cart.
28	Buy product	View list shipping address(when check out)	Customers can view the list shipping address in the system.
29	Buy product	Create shipping address(when check out)	Customers can create shipping address while checkout
30	Order Management	Create a order(Customer)	Customers can check out after they add to cart.
31	Order Management	View all order(Customer)	Customers can view all products when they add to cart.
32	Order Management	View order details, order status(Customer)	Customers can view order details, order status.
33	Order Management	Cancel order(Customer)	Customers can cancel order when order status is "Chờ xác nhận"
34	Order Management	(Admin)View all order	The screen displays all the export orders in the system.
35	Order Management	(Admin)Search/sort/filter order	The user can search the export order.
36	Order Management	(Admin)Create order	The screen provides an export form for export products to the warehouse.
37	Order Management	(Admin)View order detail	The screen displays all the details of an export order
38	Order Management	(Admin)Update order status	The user can edit the order status.
39	Dashboard	View income statistics	User can view amount of income money.
40	Purchase Order Management	View all purchase order	The screen display all purchase order.
41	Purchase Order Management	Search/sort/filter purchase order	Users can search for products or sort by criteria.
42	Purchase Order Management	Create purchase order	Users can create a purchase order with given information.
43	Purchase Order Management	Update purchase order	Users can edit the information of a purchase order.
44	Purchase Order Management	View purchase order detail	Users can view all the details of information of a purchase order.
45	Customer Management	View all customer	Users can view a list of all customers.

46	Customer Management	Create customer	Users can add a new customer to the system.
47	Customer Management	Search/sort customer	Users can search a customer from a list or sort the list of customers.
48	Customer Management	View customer details	Users can view details of a customer.
49	Customer Management	Update customer	Users can edit information of a customer
50	Customer Management	Create customer ship information	Users can create shipping information for a customer.
51	Customer Management	Update customer ship information	Users can edit shipping information of a customer.
52	Customer Management	Delete customer ship information	Users can delete shipping information of a customer.
53	Supplier Management	View list supplier	Users can list all the suppliers.
54	Supplier Management	Filter/search/sort supplier	Users can search for suppliers or sort suppliers by criteria.
55	Supplier Management	Create supplier	Users can add a new supplier to the system.
56	Supplier Management	Update supplier	Users can edit information about a supplier.
57	Author Management	View list author	User can view all of book authors.
58	Author Management	Filter/sort/search author	Users can search for authors or sort authors by criteria.
59	Author Management	Create author	Users can add a new author into the system.
60	Author Management	Update author	Users can edit information about an author.
61	Staff Management	View list Staff	User can view list of all staffs
62	Staff Management	Filter/Search/sort staff	Users can search for staff or sort staff by criteria.
63	Staff Management	Create Staff	Users can add a new staff into the system.
64	Staff Management	Update Staff	Users can edit personal information of a staff.
65	Manage Category	Create category	Users can view all the categories.
66	Manage Category	View category, Subcategory	Users can view all the categories and subcategories.
67	Manage Category	Sort/search/Filter Category	Users can search for Categories or sort categories by criteria.
68	Manage Category	Delete category	Users can delete a category in store.
69	Manage Category	Update category	Users can edit information about categories.
70	Manage Category	Create Subcategory	Users can add new subcategories.

71	Manage Category	Update Subcategory	Users can edit information of a subcategory.		
72	Manage Category	Delete Subcategory	Users can delete a subcategory.		

Figure 3.1.2.1: Screen Description table

3.1.3 Screen Authorization

#	Screen	Owner	Staff	Guest	Customer
1	(Customer)Login with email & password				x
2	(Customer)Logout				x
3	(Customer)Recertified email				x
4	(Customer)Forgot password				x
5	(Customer)Confirm email				x
6	(Owner/Staff)Login with email & password	x	x		
7	(Owner/Staff)Logout	x	x		
8	(Owner/Staff)Forgot password	x	x		
9	(Guest)Register			x	
10	(Customer)Change password				x
11	(Customer)View profile				x
12	(Customer)Update profile				x
13	List shipping information(Customer)				x
14	Create shipping information(Customer)				x
15	Update shipping information(Customer)				x
16	(Owner/Staff)Change password	x	x		
17	(Owner/Staff)View profile	x	x		
18	(Owner/Staff)Update profile	x	x		
19	Create product		x		
20	View list product	x	x	x	x
21	Search/sort/filter products	x	x	x	x
22	View Product Details	x	x	x	x
23	Update product		x		
24	Search/filter products	x	x	x	x
25	Home Page	x	x	x	x
26	View product details	x	x	x	x

27	Add product to cart			x	x
28	View list shipping address(when check out)				x
29	Create shipping address(when check out)				x
30	Create a order(Customer)				x
31	View all order(Customer)				x
32	View order details, order status(Customer)				x
33	Cancel order(Customer)				x
34	(Admin)View all order	x	x		
35	(Admin)Search/sort/filter order	x	x		
36	(Admin)Create order		x		
37	(Admin)View order detail	x	x		
38	(Admin)Update order status		x		
39	View income statistics	x	x		
40	View all purchase order	x	x		
41	Search/sort/filter purchase order	x	x		
42	Create purchase order		x		
43	Update purchase order		x		
44	View purchase order detail	x	x		
45	View all customer	x	x		
46	Create customer		x		
47	Search/sort customer	x	x		
48	View customer details	x	x		
49	Update customer		x		
50	Create customer ship information		x		
51	Update customer ship information		x		
52	Delete customer ship information		x		
53	View list supplier	x	x		
54	Filter/search/sort supplier	x	x		
55	Create supplier		x		
56	Update supplier		x		
57	View list author	x	x		
58	Filter/sort/search author	x	x		

59	Create author		x		
60	Update author		x		
61	View list Staff	x			
62	Filter/Search/sort staff	x			
63	Create Staff	x			
64	Update Staff	x			
65	Create category		x		
66	View category, Subcategory	x	x		
67	Sort/search/Filter Category	x	x		
68	Delete category		x		
69	Update category		x		
70	Create Subcategory		x		
71	Update Subcategory		x		
72	Delete Subcategory		x		

Figure 3.1.3.1: Screen Authorization table

3.1.4 Non-Screen Functions

#	Feature	System Function	Description
1	Signup new Account	.Net Mail	.Net namespace to send email.
2	Forget Password	.Net Mail	.Net namespace to send email.
3	Data store	Azure SQL Database	Server hosting site.
4	Web Server	Azure Web App	Web application hosting site.

Figure 3.1.4.1: Non-Screen Functions table

3.1.5 Entity Relationship Diagram

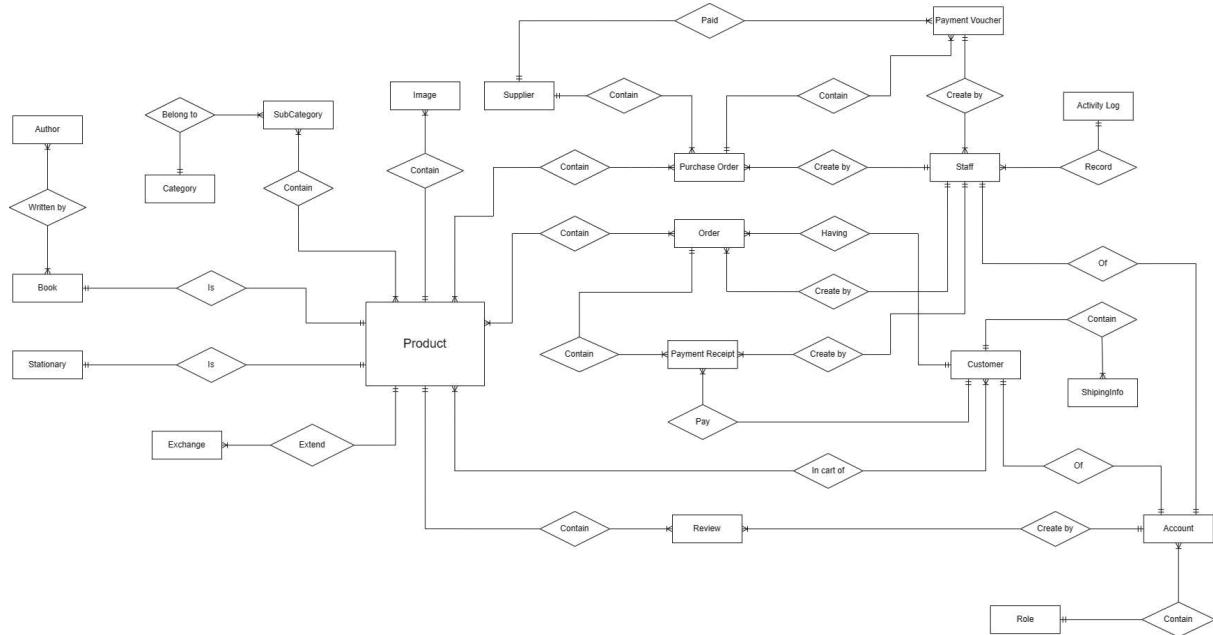


Figure 3.1.5.1: Entity Relationship Diagram

Entities Description

#	Entity	Description
01	Author	Represent group of people who the author of book in store
02	Book	Represent the book product in store
03	Stationery	Represent the stationery product in store
04	Category	Represent group of subcategory possessing qualities in common
05	SubCategory	Represent group of product possessing qualities in common
06	Exchange	Group of same product with different unit
07	Image	Group image of product
08	Product	Group of book and stationery
09	Supplier	Represent group of company that supply product to store
10	Purchase Order	Group order from supplier
11	Order	Group order of customer
12	Payment Receipt	Represent Payment Receipt
13	Payment Voucher	Represent Payment Voucher
14	Review	Group of customers reviews product after paid
15	Staff	Represent group of all staff of the store
16	Customer	Represent group of the customer of the store
17	Active Log	List activities of Staff have done in system
18	Shipping Info	List of customer's shipping addresses
19	Account	Represent group of account used in system
20	Role	Group of account type for authentication and authorization

Figure 3.1.5.2: Entities Description table

3.2 Authentication and Authorization

3.2.1 (*Customer*) Login with email & password

- Function trigger: This function is triggered when a customer attempts to log into the system.
- Function description: Customers will log in into their account by inputting their email and password.
- Screen layout:

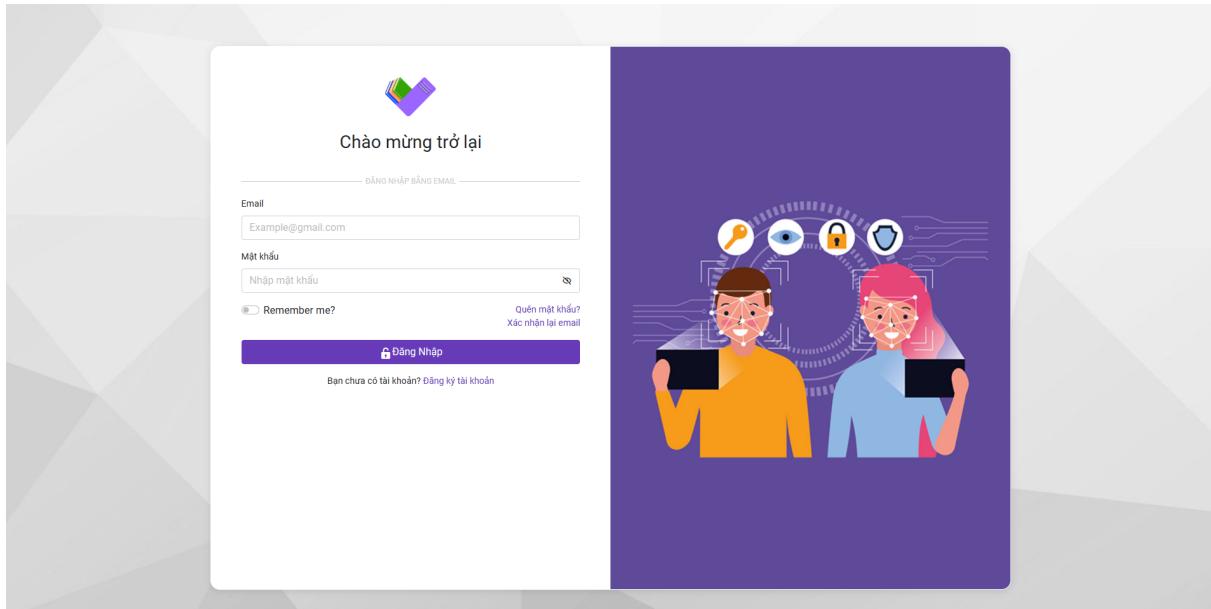


Figure 3.2.1.1: Login screen

- Function Details:

- Users enter the email and password, then click the “Đăng nhập” button. If user inputs the correct email and password, the system will then redirect to the home page. Users can choose to toggle on or off “Remember me”. If “Remember me” is chosen, when user closes the browser, they will not be logged out from the e-commerce website.
- If email or password is incorrect, the system will display an error message “Đăng nhập không thành công”
- If email is left blank, the system will display “Chưa điền thông tin đăng nhập”
- If password is left blank, the system will display “Chưa điền mật khẩu”

3.2.2 Forgot password

- Function trigger: This function is triggered when an owner forgets their password and requests the server to reset it.
- Function description: User changes their password to a new one for their account to access the system.
- Screen layout:

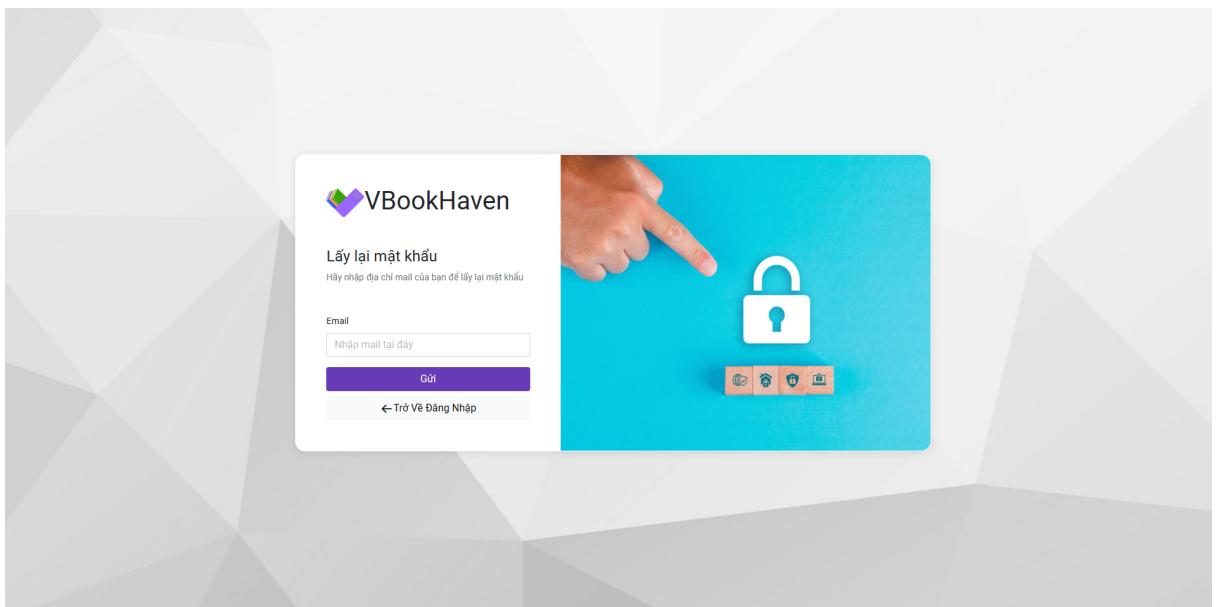


Figure 3.2.2.1: Forgot password screen

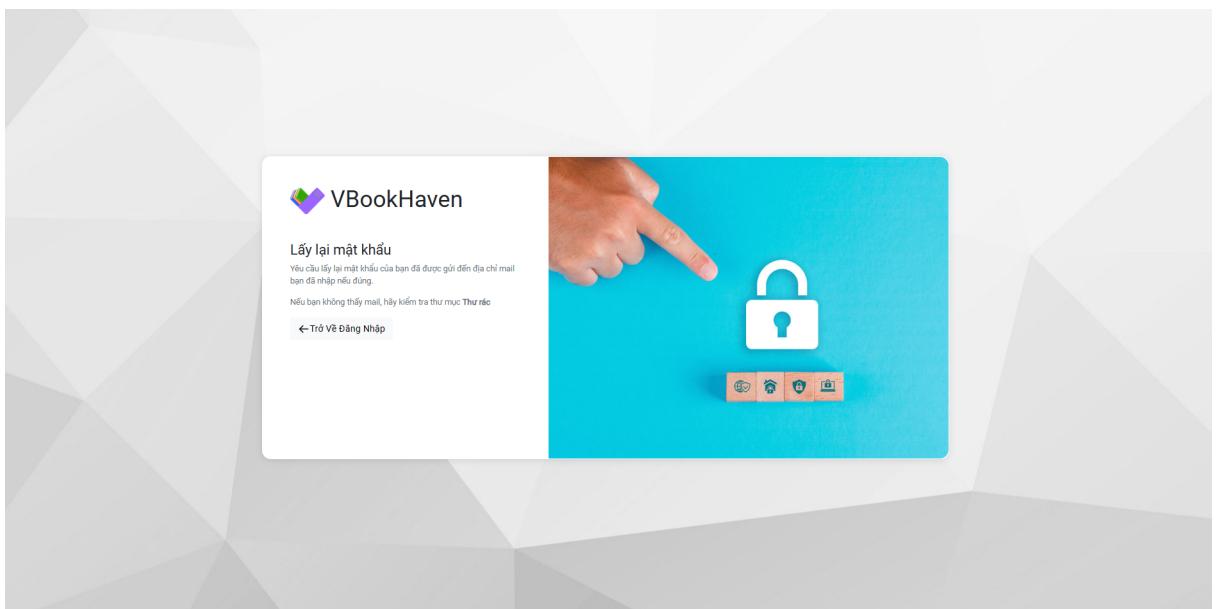


Figure 3.2.2.2: After sending email

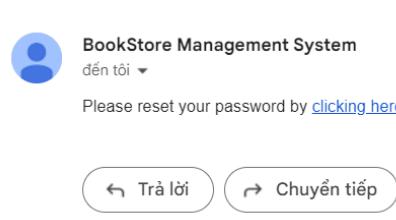


Figure 3.2.2.3: Reset password email

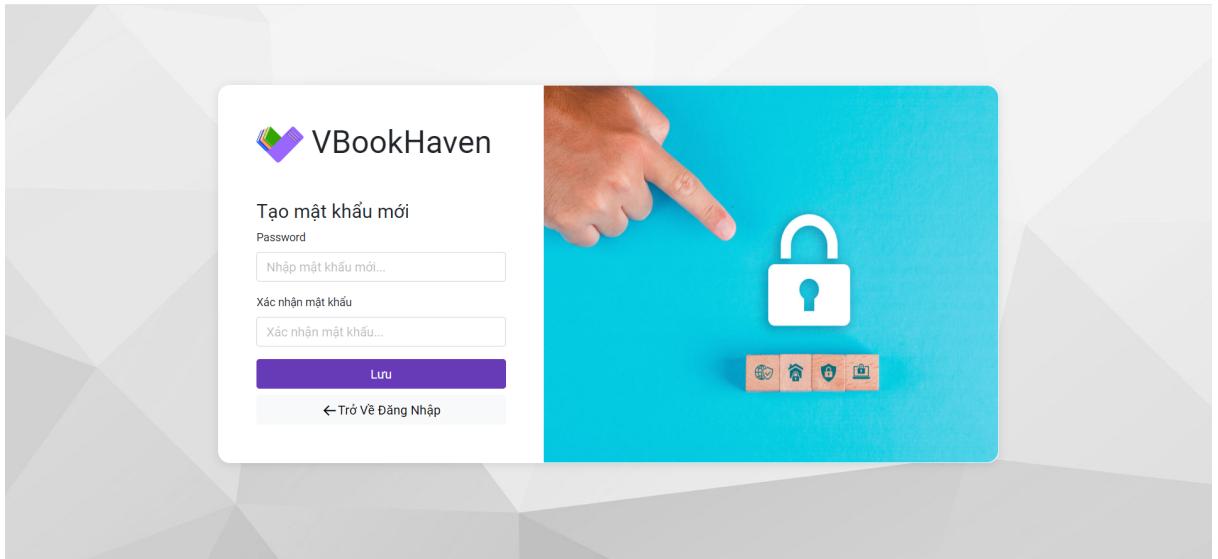


Figure 3.2.2.4: Reset password screen

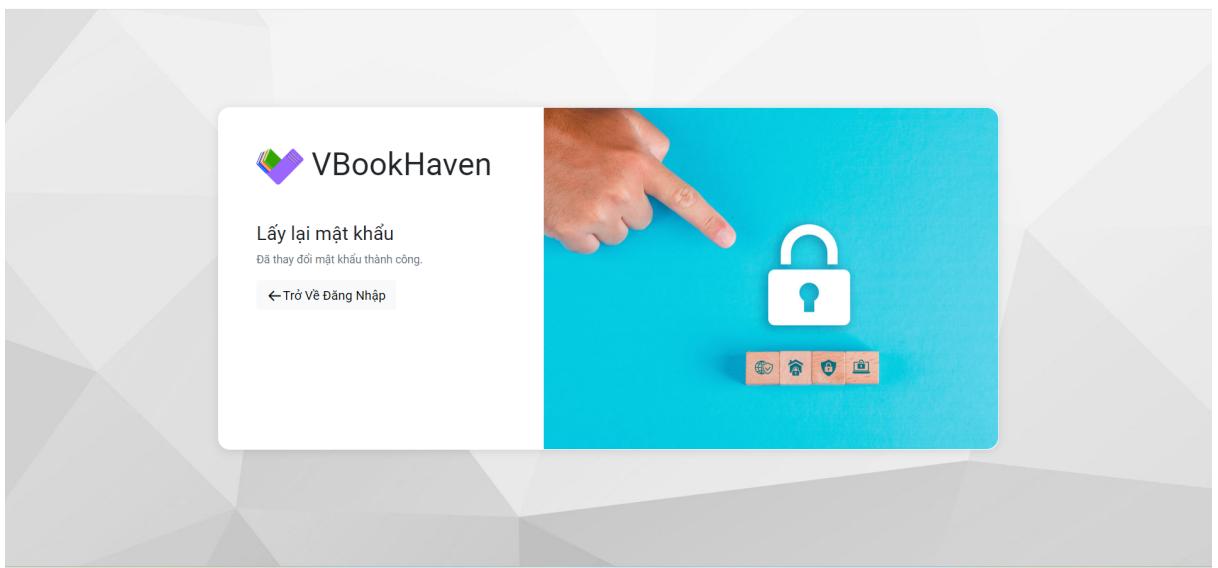


Figure 3.2.2.5: Back to Login screen

Function Details:

- User enter their email used for their account, then click “Gửi”
- If the email exists in the system, the notification will send the password reset link to the email. Go to your email and click on the link to redirect to the password change page.
- If the email is incorrect, the system will not send a message.
- If password and confirm password is not matched, the inline error message “Mật khẩu phải trùng nhau” is displayed till confirm password matches the password.

3.2.3 Register

- Function trigger: This function is triggered when a guest attempts to create a new account in the system
- Function description : Guest creates a new account to become a customer for the e-commerce website
- Screen layout:

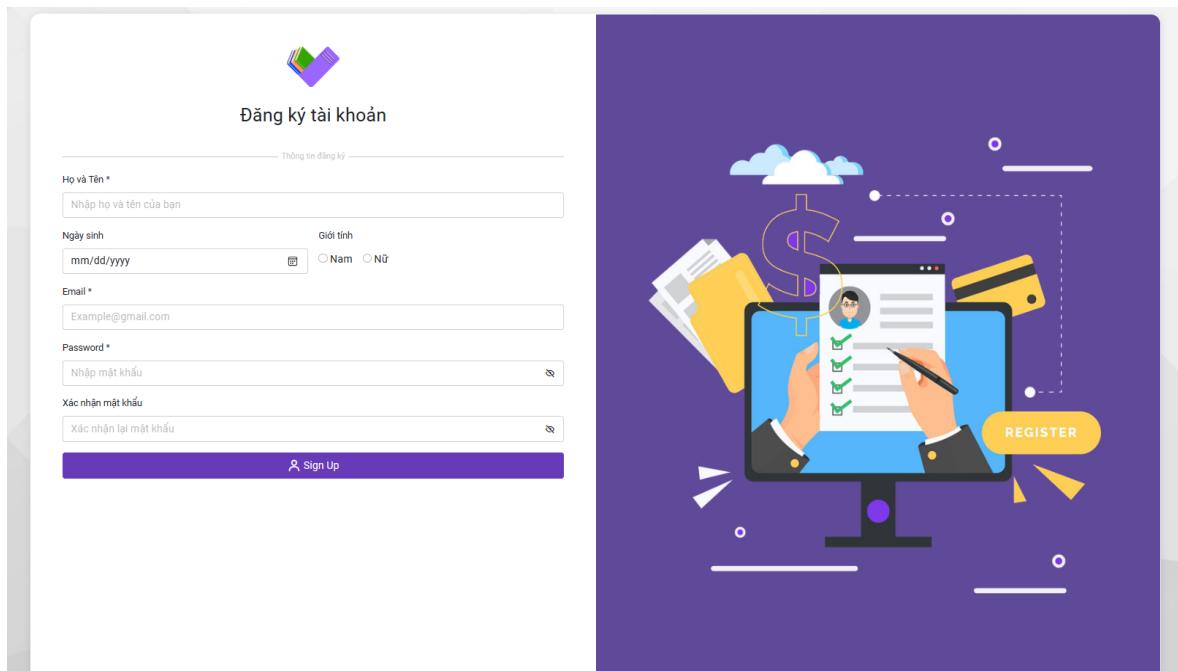


Figure 3.2.3.1: Register screen

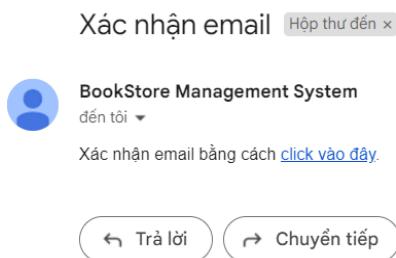


Figure 3.2.3.2: Account confirmation email

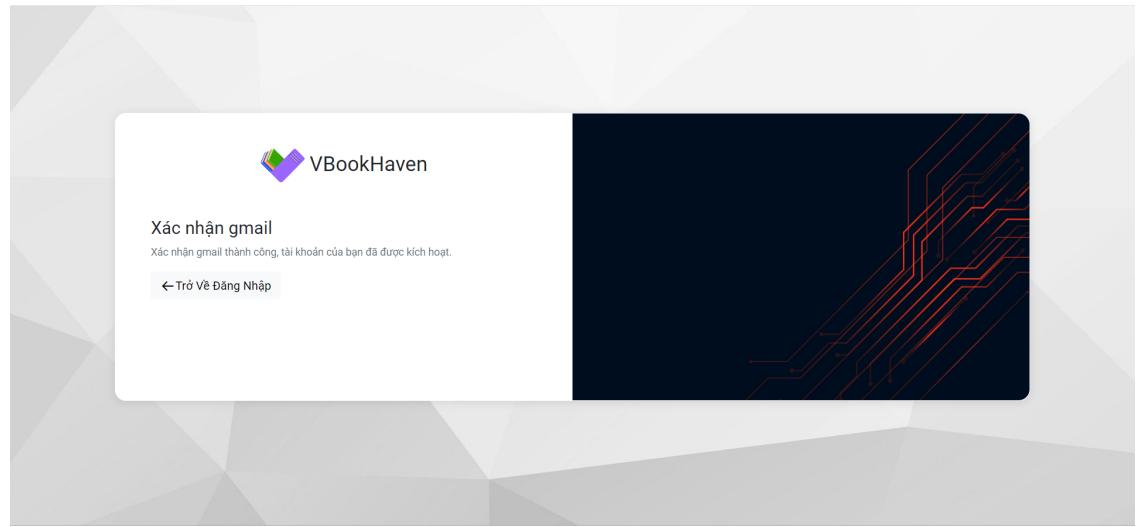


Figure 3.2.3.3: Back to login screen

- Function details:
 - User enters all the information fields, then click the “Sign Up” button
 - If required fields are left blank, the system will display error
 - If email is not in correct format, the system will display error “Nhập khẩu và xác nhận mật khẩu không khớp”
 - If password does not have at least one number, one capital letter and one special character and at least 8 characters. The system will display error “Mật khẩu phải chứa ít nhất 8 ký tự, một ký tự đặc biệt, một chữ số và một chữ cái in hoa.”
 - If re-enter password field is not the same as entered password, the system will display error

3.2.4 Email Re-confirm

- Function trigger : User clicks “Xác nhận lại email” in the Log In page
- Function description: This function sends guests who can not receive email confirmation registration an email to an email address to re-confirm and activate the account with said address.
- Screen layout:

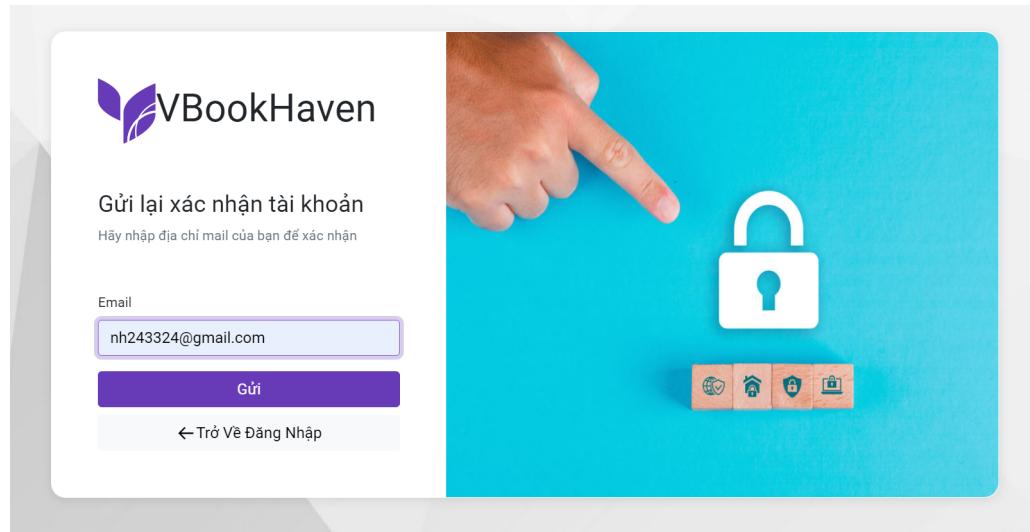


Figure 3.2.4.1: Email reconfirm screen

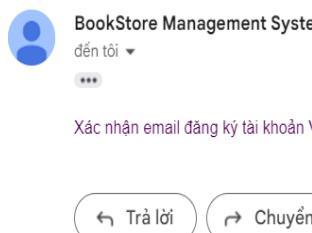


Figure 3.2.4.2: Reconfirm email

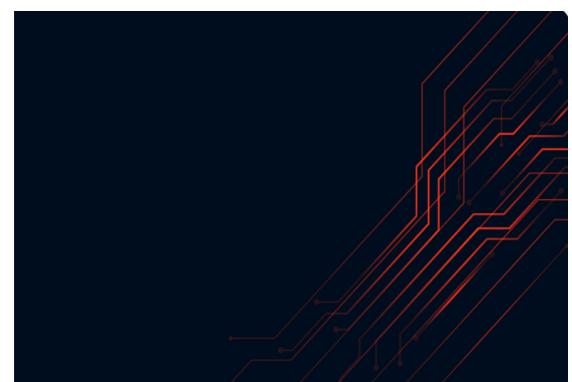


Figure 3.2.4.3: Back to login screen

- Function details:
 - From the Login page, the user selects the "Resend email confirmation" function, it will switch to the page to enter the email address, after entering,

- click "Gửi", then in the email there will be a confirmation letter, the user just needs to click on the link in the email, the account will be confirmed.
- User enters the email of the account to be confirmed, then click "Gửi"
 - The system will then send a confirmation email to the inputted address
 - User needs to click on the link in the email, which will redirect the user to the system with message success. After that, the account will be confirmed and can be logged in and used

3.2.5 (Customer)Logout

- Function trigger : Logged in Customer clicks “Đăng xuất” button on the header bar
- Function description : Customer logs out of the system.
- Screen layout:

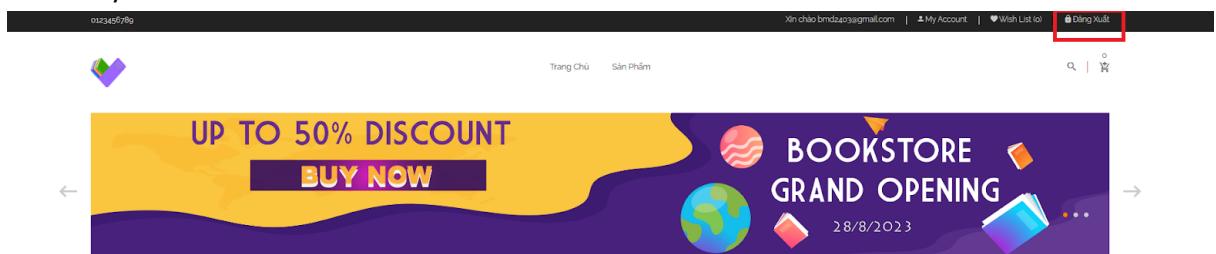


Figure 3.2.5.1: Click “Đăng xuất” on header bar to log out

- Function details:
 - After clicking “Đăng xuất”, user will be logged out of the website and redirected back to the home page

3.2.6 (Staff)Login with email & password

- Function trigger: When a Owner/Staff trying to access the management website.
- Function description: Owner/Staff will log in into their account by inputting their email and password.
- Screen layout:

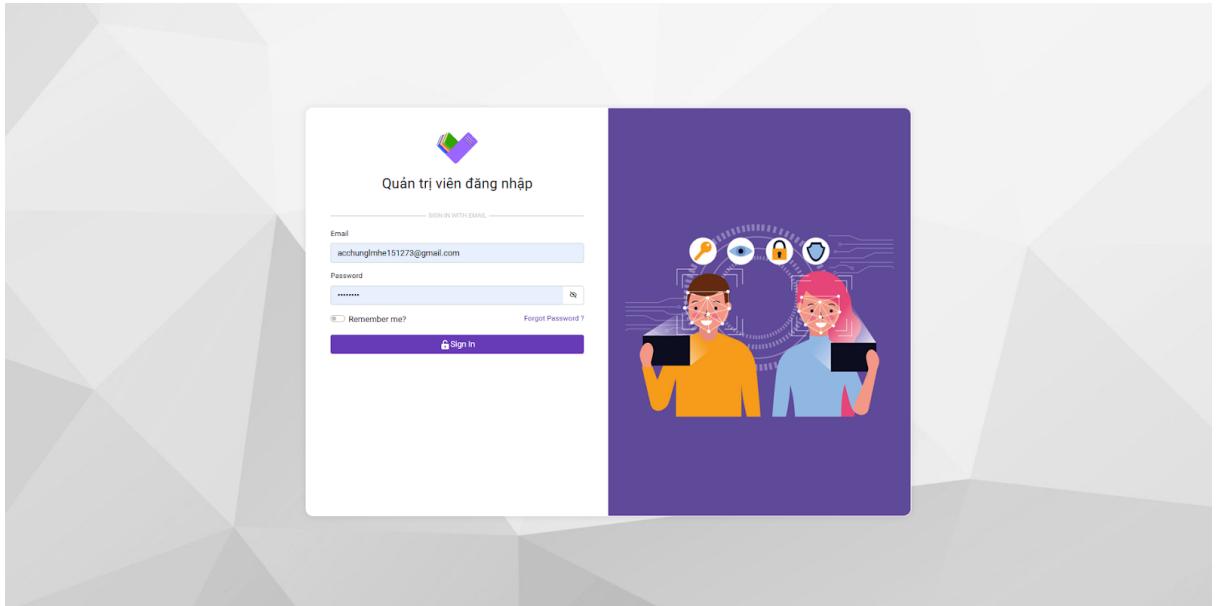


Figure 3.2.6.1: Staff Login screen

- Function Details:

- Users enter the email and password, then click the “Sign in” button. Users can choose to toggle on or off “Remember me”. If “Remember me” is chosen, when user closes the browser, they will not be logged out from the management website.
- If email or password is incorrect, the system will display an error message “Đăng nhập không thành công”
- If email is left blank, the system will display “Chưa điền thông tin đăng nhập”
- If password is left blank, the system will display “Chưa điền mật khẩu”
- If user inputs the correct email and password, the system will then redirect to the Management page.

3.2.7 (Staff)Logout

- Function trigger : Logged in Owner/Staff clicks “Đăng xuất” button in profile icon in top navbar
- Function description : Owner/Staff logs out of the system.
- Screen layout:

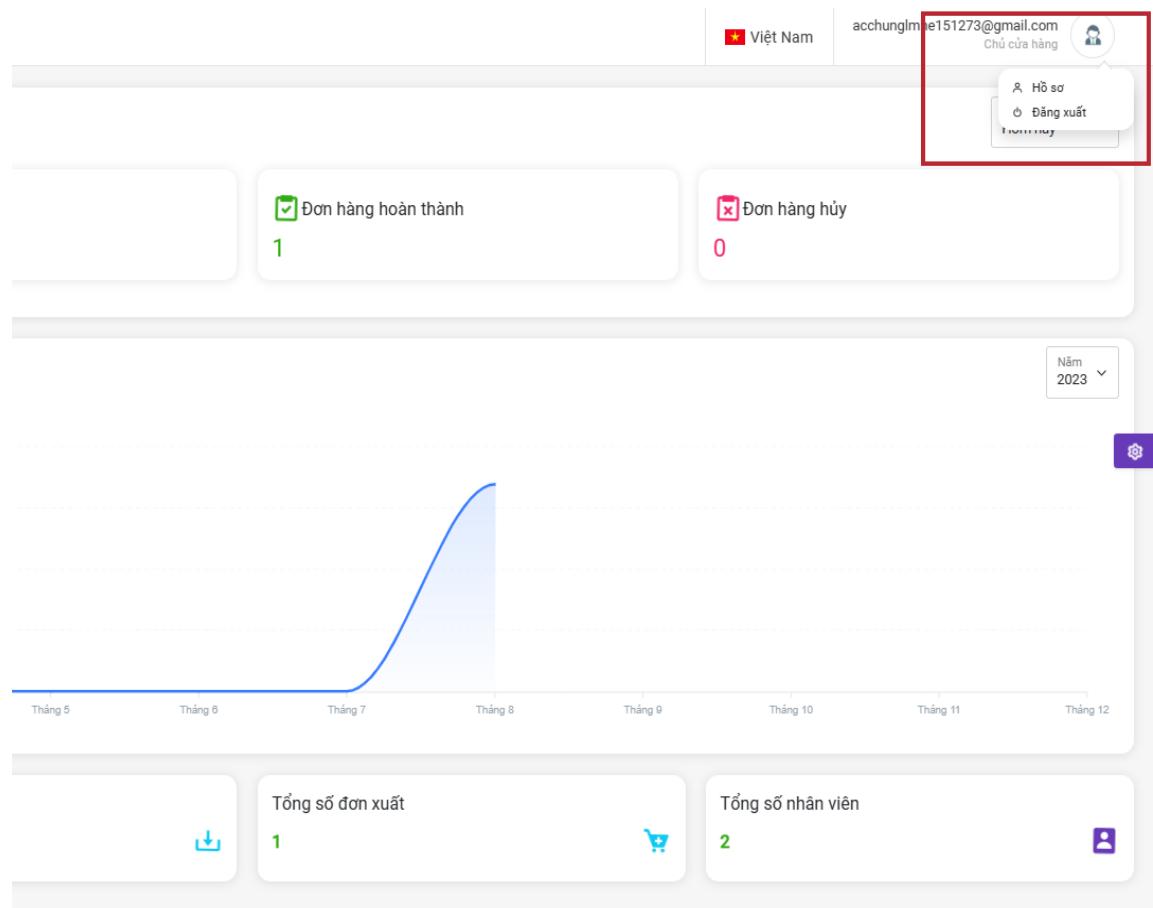


Figure 3.2.7.1: Click “Đăng xuất” to log out

- Function details:
 - After clicking “Đăng xuất”, user will be logged out of the website and redirected back to the Login page

3.3 Category and Subcategory Management

3.3.1 View Category and Subcategory

- Function trigger : Owner/Staff clicks “Loại sản phẩm” under “Sản phẩm” on the sidebar menu
- Function description : Owner and Staff can view the list of all categories in the systems, along with their subcategories.
- Screen layout:

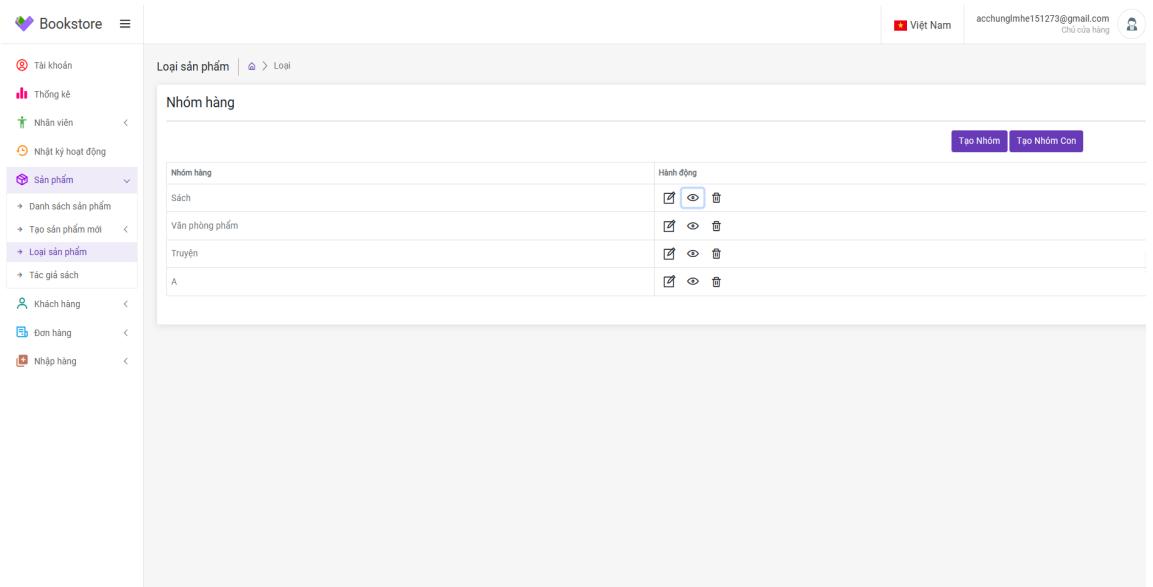


Figure 3.3.1.1: View Category List screen

Nhóm hàng	Hành động
Sách	[Edit] [View] [Delete]
Văn phòng phẩm	[Edit] [View] [Delete]
Bút - Giấy	[Edit] [View] [Delete]
Dụng cụ học sinh	[Edit] [View] [Delete]
Dụng cụ nhà	[Edit] [View] [Delete]
Sản phẩm về giấy	[Edit] [View] [Delete]
Sản phẩm khác	[Edit] [View] [Delete]
Sản phẩm điện tử	[Edit] [View] [Delete]
Sách trong nước	[Edit] [View] [Delete]
A	[Edit] [View] [Delete]

Figure 3.3.1.2: View Category and Subcategory List screen

- Function details:
 - This function retrieves and displays all categories available in the system, including their subcategories
 - After clicking on the eye icon of a category entry, the system will show all of that category's subcategories. Click again to hide the subcategories list

- If there are no categories and subcategories, the system will display “Không có dữ liệu”

3.3.2 Create Category

- Function trigger: Staff click the “Tạo nhóm” button in the View Categories and Subcategories page
- Function description : Staff adds a new category to the category list
- Screen layout:

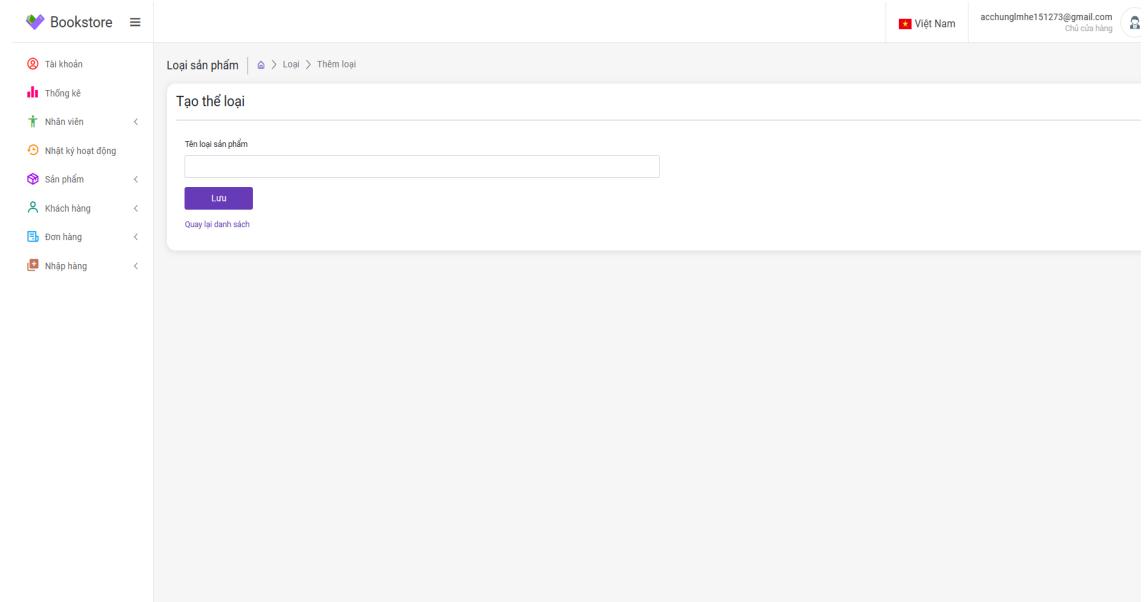


Figure 3.3.2.1: Create Category screen

- Function details:
 - After inputting the new category's name, the user then clicks “Lưu”. The system will then create a new category and store it in the database

3.3.3 Update Category

- Function trigger: Owner/Staff clicks the pen icon of a category entry in the View Category and Subcategory page
- Function description : Owner/Staff selects a category to change its detailed information and update it to the database.
- Screen layout:

The screenshot shows a user interface for updating a product category. At the top, there's a navigation bar with the text 'Loại sản phẩm' followed by three arrows pointing right, then 'Loại', and finally 'Sửa nhóm'. Below this, the main content area has a title 'Sửa nhóm'. Underneath the title is a text input field with the placeholder 'Tên loại sản phẩm'. Inside the input field, the word 'Sách' is typed. Below the input field is a purple rectangular button with the white text 'Lưu'. At the bottom left of the main area, there is a small link that reads 'Quay lại danh sách'.

Figure 3.3.3.1: Update Category screen

- Function details:
 - After inputting the new information, the user then clicks “Lưu”. The system will then update the category in the database

3.3.4 Delete Category

- Function trigger : Owner/Staff clicks the trash can icon of a category entry in the View Category and Subcategory page
- Function description : Owner/Staff selects a category to delete it from the database.
- Screen layout:

Nhóm hàng		Hành động
Sách		<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Văn học		<input type="checkbox"/> <input type="checkbox"/>
Kinh Tế		<input type="checkbox"/> <input type="checkbox"/>
Tâm lý - Kỹ năng sống		<input type="checkbox"/> <input type="checkbox"/>
Sách nuôi dạy con		<input type="checkbox"/> <input type="checkbox"/>
Sách thiếu nhi		<input type="checkbox"/> <input type="checkbox"/>
Tiểu sử - Hồi ký		<input type="checkbox"/> <input type="checkbox"/>
Sách giáo khoa		<input type="checkbox"/> <input type="checkbox"/>
Khoa học - viễn tưởng		<input type="checkbox"/> <input type="checkbox"/>
Văn phòng phẩm		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Figure 3.3.4.1: Click trash icon to delete

- Function details:
 - After clicking the delete icon, System will ask to confirm.
 - If clicking on “Xoá”, the category is removed from the database and return to list category page
 - If click on “trở lại danh sách”, the View Category and Subcategory page will then be reloaded and show the remaining categories and subcategories
 - If the selected category has subcategories that are already used by any of the system’s products, it cannot be deleted

3.3.5 Create Subcategory:

- Function trigger : Staff clicks the “Tạo nhóm con” button in View Categories and Subcategories page
- Function description : Staff adds a new subcategory to the list

- Screen layout:

The screenshot shows a user interface for adding a new category. At the top, it says "Thêm nhóm hàng". Below that, there are two input fields: "Nhóm hàng" (Category name) and "Nhóm cha" (Parent category). The "Nhóm cha" field contains "Sách" and has a dropdown arrow. At the bottom left is a purple "Lưu" (Save) button, and at the bottom right is a link "Quay lại danh sách" (Back to list).

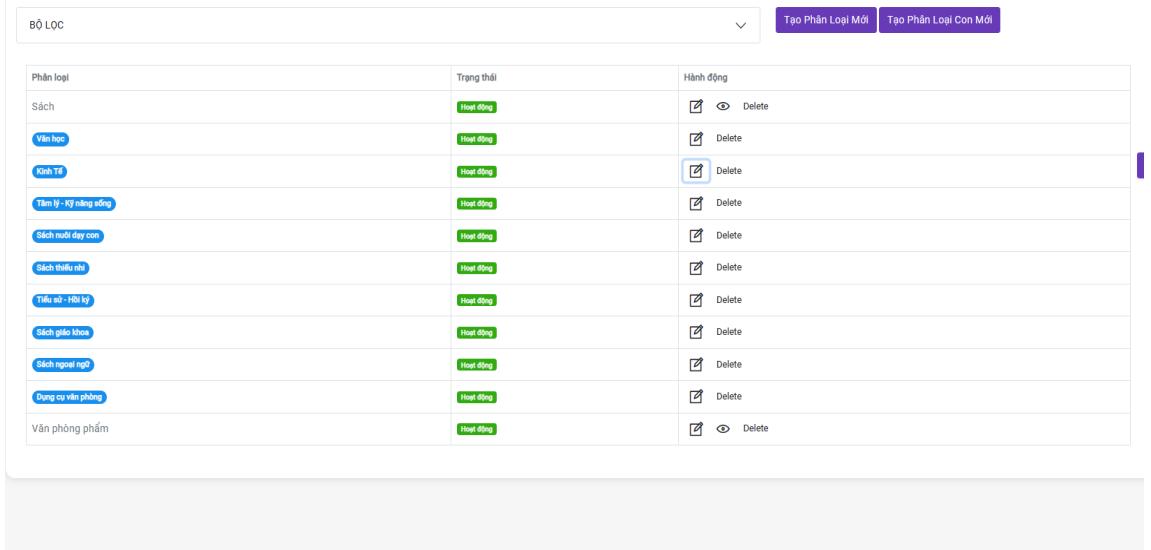
Figure 3.3.5.1: Create subcategory screen

- Function details:

- User input the new subcategory's name, select the category it belongs to then click on “Lưu” button to confirm and add to database

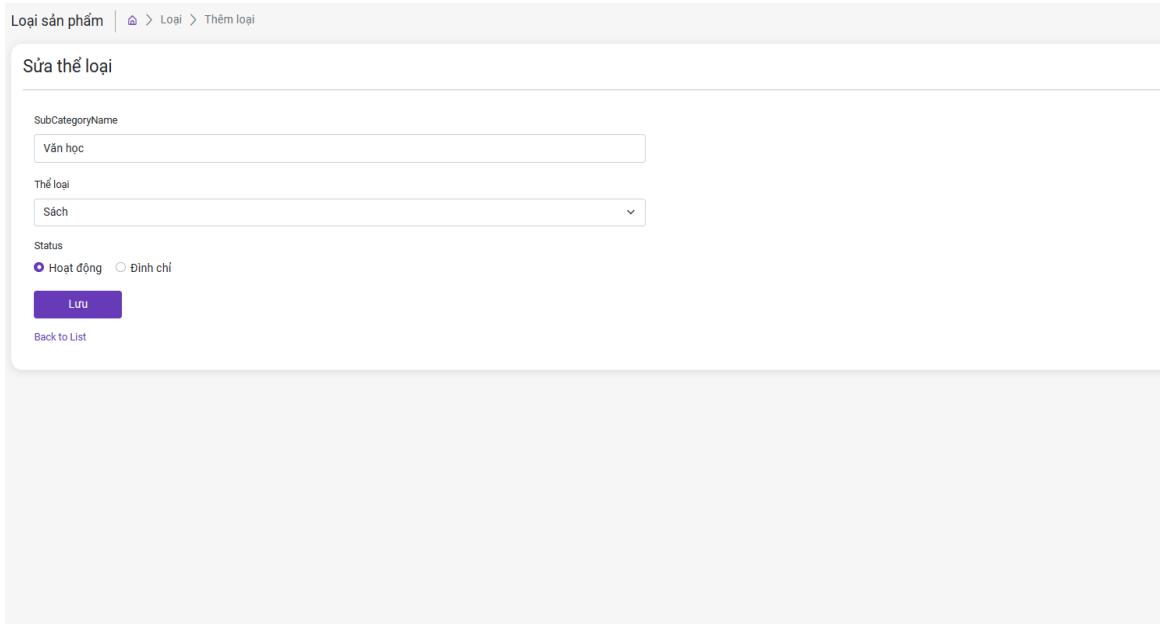
3.3.6 Update Subcategory:

- Function trigger : Owner/Staff clicks the pen icon of a subcategory entry in the View Category and Subcategory page
- Function description : Owner/Staff selects a subcategory to change its detailed information and update it to the database.
- Screen layout:



The screenshot shows a table with three columns: 'Phản lög' (Category), 'Trạng thái' (Status), and 'Hành động' (Actions). The 'Phản lög' column lists categories like 'Sách', 'Văn học', 'Kinh Tế', 'Tâm lý - Kỹ năng sống', 'Sách nuôi dạy con', 'Sách thiếu nhi', 'Tiểu sử - Hồ ký', 'Sách giáo khoa', 'Sách ngoại ngữ', and 'Dụng cụ văn phòng'. The 'Trạng thái' column shows 'Hoạt động' for all entries. The 'Hành động' column contains icons for 'Delete' (trash can) and 'Edit' (pencil).

Figure 3.3.6.1: Click pen icon to edit



The screenshot shows a form titled 'Sửa thể loại' (Edit Category). It includes fields for 'SubCategoryName' (Văn học), 'Thể loại' (Sách), and 'Status' (radio buttons for 'Hoạt động' and 'Định chỉ'). A 'Lưu' (Save) button is at the bottom, and a 'Back to List' link is visible.

Figure 3.3.6.2: Edit Subcategory screen

- Function details:
 - After inputting the new information, the user then clicks “Lưu”. The system will then update the subcategory in the database

3.3.7 Delete subcategory:

- Function trigger : Staff clicks the delete(bin) icon of a subcategory entry in the View Category and Subcategory page
- Function description : Owner/Staff selects a subcategory to delete it from the database
- Screen layout:

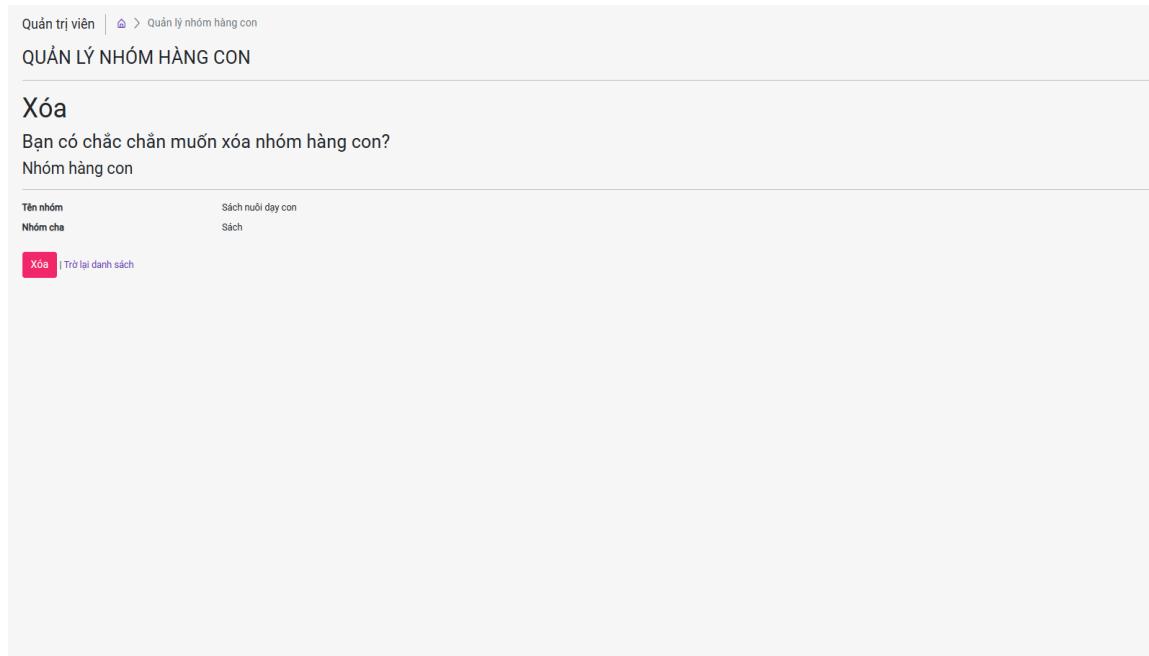


Figure 3.3.7.1: Confirm delete screen

- Function details:
 - After clicking the delete icon, the system will ask to confirm.
 - If clicking on “Xoá” the subcategory is removed from the database. The View Category and Subcategory page will then be reloaded and show the remaining categories and subcategories
- Else Turning back to the previous page.
- If the selected subcategory is already used by any of the system's products, it cannot be deleted

3.4 Products Management

3.4.1 View List Products

- Function trigger: the Owner or Staff clicks “Danh sách sản phẩm” under “Sản phẩm” on the sidebar.
- Function description: Owner and Staff can view the list of all products in the system
- Screen layout:

The screenshot shows a product management interface. On the left is a sidebar with icons for User Account, Statistics, Employees, Activity Log, Products (selected), New Product, Product Type, Customers, Orders, and Import/Export. The main area has tabs for 'Sản phẩm' and 'Số liệu sản phẩm'. Below is a table titled 'Bảng quản lý sản phẩm' with the following data:

ID	Tên sản phẩm	Tồn kho	Có thể bán	Giá nhập (VND)	Giá lẻ (VND)	Giá sỉ (VND)	Chiết khấu (%)	Trạng thái	Hành động
123	Chiến Bin Cầu Võng (Tái Bản 2020)	0	0	70,850	0	0		Hoạt động	⋮
PVN1	Sứ Ký Tư Mã Thiên (Tái Bản 2023)	48	48	44,748	198,000	130,000		Hoạt động	⋮
PVN2	Những Cuộc Phiêu Lưu Của Tom Sawyer (Tái Bản 2023)	50	43	20,023	67,000	40,000		Hoạt động	⋮
PVN3	Cây Cam Noot Của Tôi	49	49	30,000	81,000	30,000		Hoạt động	⋮
PVN4	Nhà Giả Kim (Tái Bản 2020)	44	44	20,000	60,000	40,000		Hoạt động	⋮
PVN5	Trixie, Tiếng Tiếng... - Tài Bản 2021	46	43	20,000	60,000	40,000		Hoạt động	⋮

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Figure 3.4.1.1: View List Products screen

This screenshot shows the same product management interface as Figure 3.4.1.1, but with additional filtering and searching features. The 'BỘ LỌC' (Filter) section includes a search bar ('Tim kiếm') and dropdown menus for 'Loại sản phẩm' (Product Type) and 'Trạng thái' (Status). The table below is identical to the one in Figure 3.4.1.1.

Figure 3.4.1.2: View List Products screen with filter and search option

- Function details:
 - This function retrieves and displays all products available in the system, including some of their details and related information.
 - If there are no products, the page will display “Không có dữ liệu”
 - To search and filter products, the user clicks on “Bộ lọc”, then input a part of the product's name or barcode in the search bar, and pick category and

status options to filter. The system will then show the searched and filtered result.

- To sort the product list, the user clicks the header of an attribute column. The product list table will then be sorted in ascending order by said attribute. Click again to sort the products in descending order.

3.4.2 View Products Details

- Function trigger : when Owner/Staff click on the eye icon of a specific product entry in the View List Products page.
- Function description : Owner/Staff can view detailed information about each product
- Screen layout:

Chi tiết sách	
ID	2
Mã vạch	PVN2
Tên sản phẩm	Những Cuộc Phiêu Lưu Của Tom Sawyer (Tái Bản 2023)
Số lượng	66
Loại sản phẩm	Văn học
Đơn vị	Quyển
Kích thước	20.5 x 14.5 x 1.8 cm
Trọng lượng	450g
Số trang	364
Ngôn ngữ	Tiếng Việt
Tác giả	
Giá nhập	20000 VND
Giá lẻ	67000 VND
Chiết khấu lẻ	5%
Giá sỉ	40000 VND
Chiết khấu sỉ	10%
Trạng thái	Hoạt động
Mô tả	<p>* Những Cuộc Phiêu Lưu Của Tom Sawyer Những cuộc phiêu lưu của Tom Sawyer (The Adventures of Tom Sawyer, 1876) được coi là hồi ký của Mark Twain và tác giả mô tả Tom Sawyer, anh bạn Huck Finn và tên gian ác Injun Joe cũng như làng St. Petersburg sống tại Hannibal khi trước. Những cuộc phiêu lưu của Tom Sawyer là một trong những tác phẩm văn học đầu tiên của Mỹ, sử dụng những phương ngữ đặc trưng của vùng miền, tác giả đã tạo nên nền văn hóa riêng của thi triển nhỏ bé này. Mark Twain đã vẽ ra lối của cậu bé Tom Sawyer dùng cảm tình nghịch từ những ký ức tuổi thơ của mình ở một thị trấn ven sông Missouri vào những năm 1840, đó chính là điều khiến cuốn sách trở nên thú vị nhất. Những cuộc phiêu lưu của Tom Sawyer là một câu chuyện hài hước thế giới tưởng tượng và những nỗi sợ của một cậu bé, còn là tiếng nói châm biếm gay gắt về văn hóa và xã hội lúc bấy giờ. Đây là một trong những tác phẩm của Mark Twain được nhiều độc giả yêu thích và được ca ngợi như một tác phẩm văn học cổ điển của</p>
Ảnh minh họa	
Quay Lại Chỉnh Sửa	

Figure 3.4.2.1: View Product Detail screen

- Function details:
 - This function retrieves all information about the selected product, including their details and related information
 - If the user tries to see the detail of a non-existent product, the system will return an error page

3.4.3 Create Product

- Function trigger : Staff click the “Thêm sản phẩm” button in the View List Products page or on the sidebar (under “Sản phẩm”), then click “Thêm sách” or “Thêm văn phòng phẩm”
- Function description : Staff adds a new product in store to product list
- Screen layout:

The screenshot displays the 'Create Product' interface with the following sections:

- Thông tin chung (General Information):**
 - Mã vạch: Đã trống để tự sinh
 - Tên sản phẩm *: VD: Sách a, Bút bi xyz, v.v..
 - Mô tả: Mô tả về sản phẩm...
 - Đơn vị: VD: Quyển, Bộ, v.v..
 - Kích thước: VD: 30 x 40 cm
 - Trọng lượng: VD: 500 g
 - Loại sản phẩm: Chọn: Văn học
- Thông tin sách (Book Information):**
 - Số trang: Trang
 - Ngôn ngữ: VD: Tiếng Việt, Tiếng Anh, v.v..
 - Tác giả: Chọn
- Giá sản phẩm (Product Price):**
 - Giá nhập *: VND
 - Giá lẻ *: VND
 - Chiết khấu lẻ *: %
 - Giá sỉ *: VND
 - Chiết khấu sỉ *: %
- Thông tin sách (Book Information):**
 - Số trang: Trang
 - Ngôn ngữ: VD: Tiếng Việt, Tiếng Anh, v.v..
 - Tác giả: Chọn
- Giá sản phẩm (Product Price):**
 - Giá nhập *: VND
 - Giá lẻ *: VND
 - Chiết khấu lẻ *: %
 - Giá sỉ *: VND
 - Chiết khấu sỉ *: %

At the bottom left are the 'Lưu' (Save) and 'Hủy' (Cancel) buttons.

Figure 3.4.3.1: Create Product screen

- Function details:
 - This function allows Staff to add a new product to the system by providing its details, requiring information such as name, category, prices...
 - After the inputted details are validated, the user can click “Lưu”. The system will then create a new product with inputted information and store it in the database.

3.4.4 Update Product

- Function trigger : Staff click the pen icon of a product entry in the View List Products page, or click the “Chỉnh sửa” button in a specific Product Details page.
- Function description : Staff selects the products that need to be edited to edit the details and update to the system
- Screen layout:

The screenshot displays the 'Update Product' interface in two main sections: 'Thông tin chung' (General Information) and 'Thông tin sách' (Book Information).

Thông tin chung (General Information):

- Mã vạch: PVNT
- Tên sản phẩm*: Sứ Ký Tư Mã Thiên (Tái Bản 2023)
- Mô tả: Sứ ký là bộ thông sử đầu tiên của Trung Quốc cổ đại. Bộ sử ký lưu giữ, chỉnh lý lại các tư liệu lịch sử và phong phú trong hơn ba ngàn năm từ thời Ngũ đế đến có trước sứ cho tới giữa thời Tây Hán.
- Đơn vị*: Quyển
- Kích thước: 24 x 16 x 4.4 cm
- Trọng lượng: 1100g
- Loại sản phẩm: Văn học

Thông tin sách (Book Information):

- Số trang: 892
- Ngôn ngữ: Tiếng Việt
- Tác giả: Daisuke Aizawa, Touzai
- Giá nhập: 44748 VND
- Giá lẻ*: 198000 VND
- Chiết khấu lẻ*: 5 %
- Giá sỉ*: 130000 VND
- Chiết khấu sỉ*: 10 %

Action Buttons:

- Lưu (Save)
- Hủy (Cancel)
- Ngừng Kinh Doanh (Stop Selling)

Figure 3.4.4.1: Update Product screen

- Function details:

- If user tries to update a non-existent product, the system will return an error page
- Authorised users can modify the details of an existing product, such as product name, description, price, and image...
- After the inputted information is validated, the user can click “Lưu”. The system will then save the product with new information to the system.
- Authorised users can click “Ngừng kinh doanh” or “Tiếp tục kinh doanh” button to deactivate or activate the product

3.5 Author Management

3.5.1 View List Author:

- Function trigger : Owner/Staff clicks “Tác giả sách” on the side menu bar
- Function description : Owner and Staff can view the list of all book authors in the system
- Screen layout:

ID	Tác giả	Trạng thái	Hoạt động
1	Daisuke Aizawa, Touzai	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Paulo Coelho	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	David Baldacci	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	Külsec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5	Og Mandino	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6	Russell Brunson	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7	Lama Christie McNally	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Figure 3.5.1.1: View List Author screen

- Function details:
 - This function retrieves and displays all authors available in the system, including their details and information.
 - If there are no authors, the page will display “Không có dữ liệu”
 - To search and filter authors, the user clicks on “Bộ lọc”, then input the author’s ID or a part of its name in the search bar, and pick the status option to filter. The system will then show the searched and filtered result.

3.5.2 Create Author:

- Function trigger : Staff clicks the “Thêm tác giả” button in the View List Author page.
- Function description : Staff adds a new author to the author list.

- Screen layout:

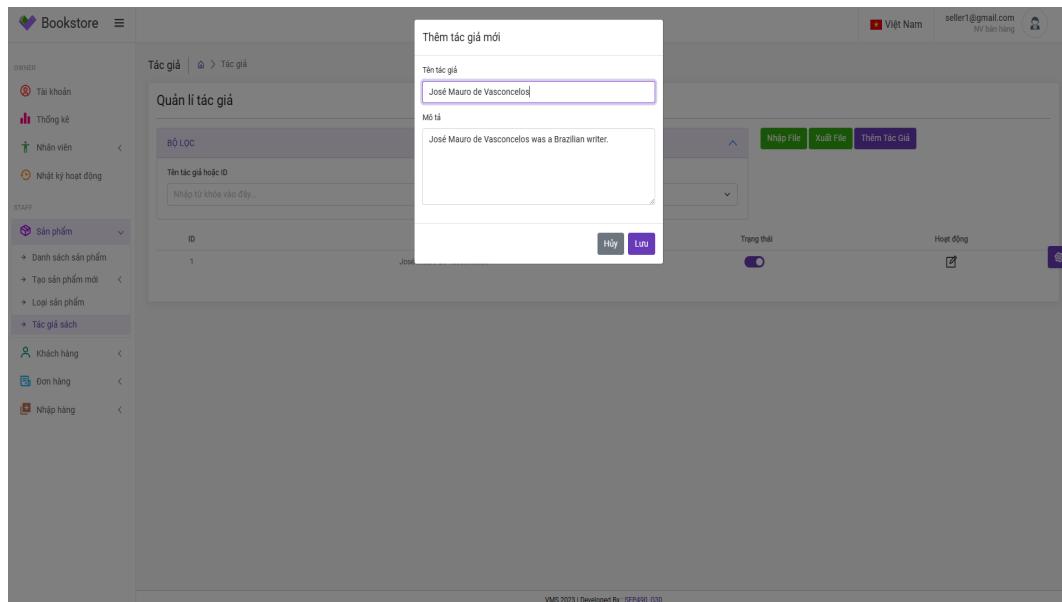


Figure 3.5.2.1: Create Author screen

- Function details:

- After clicking the add button, a popup screen will appear
- User inputs the new author's information, then the system will validate them
- If the information is valid, user can click “Lưu”, then the system will create a new author with inputted information and add it to the database

3.5.3 Update Author:

- Function trigger : Staff click the pen icon of an author entry in the View List Author page
- Function description : Staff selects the author that needs to be edited to edit the details and update to the system
- Screen layout:

Figure 3.5.3.1: Update Author screen

- Function details:
 - If user tries to update a non-existent author, the system will return an error page
 - Authorised users can modify the name and description of an existing author
 - After the inputted information is validated, the user can click “Lưu”. The system will then save the author with new information to the system.

3.5.1 Change Status Author:

- Function trigger : Staff clicks the toggle on the “Trạng thái” column of an author entry in the View List Author page
- Function description : Staff activates or deactivates an author in the system
- Screen layout:

Quản lý tác giả			
BỘ LỌC		Nhập File Xuất File Thêm Tác Giả	
ID	Tác giả	Trạng thái	Hoạt động
1	José Mauro de Vasconcelos	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Figure 3.5.1.1: Click toggle to change status

- Function details:
 - If the author was active before, it will become inactive, and the toggle changes to white to reflect
 - If the author was inactive before, it will become active, and the toggle changes to blue to reflect

3.6 Buy products

3.6.1 View List Products (Customer):

- Function trigger :
 - Customer/Guest clicks “Sản phẩm” or one of the subcategories under it on the navbar
 - Customer/Guest hover over the magnifying glass icon on the navbar, types in the search field then clicks the magnifying glass icon
- Function description : Customer/Guests can view the list of products in the store. They can also search and filter their desired products
- Screen layout:

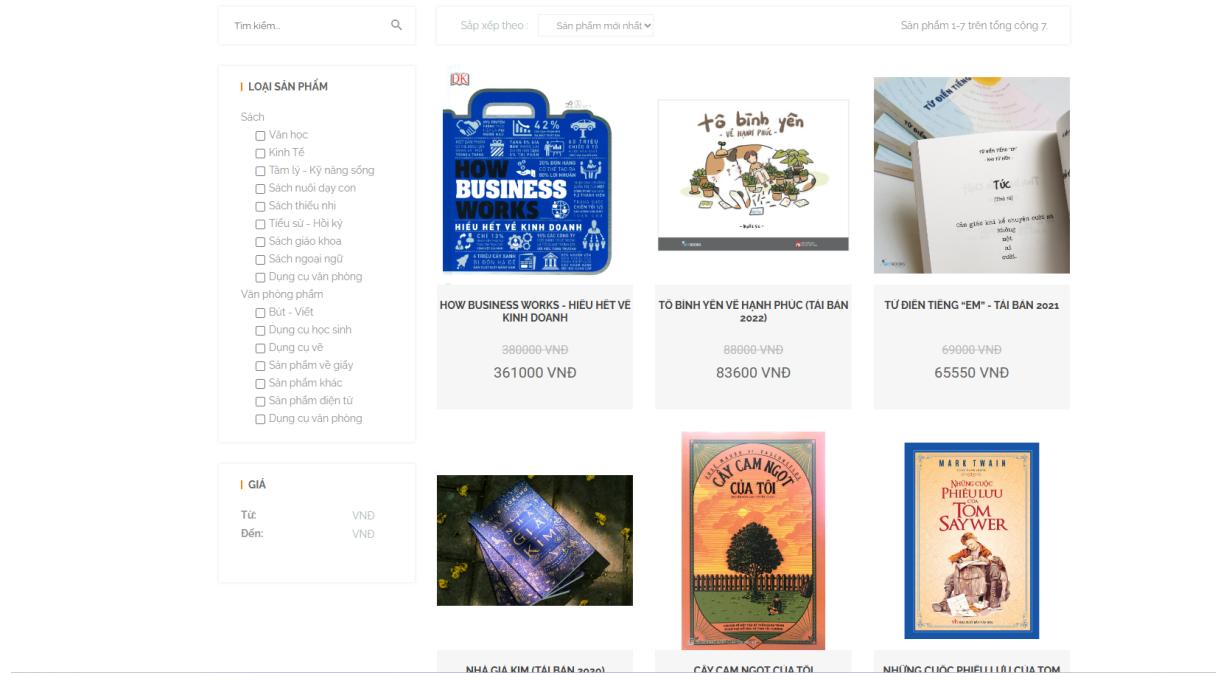


Figure 3.6.1.1: View List Product screen

- Function details:
 - This function retrieves and displays all active products available in the system, including some of their details, then display products based on user's search and filter options
 - User can sort the result by selecting the “Sắp xếp theo” option
 - To search a desired product, user inputs a part of its name in the “Tìm kiếm” bar on the side menu, then click the magnifying glass icon besides it
 - To filter products, user chooses one or more category options in the “Loại sản phẩm” section, and/or inputs the price range in the “Giá” section on the side menu, then click the magnifying glass icon besides the “Tìm kiếm” bar

3.6.2 View Product Details (Customer):

- Function trigger : Customer/Guest clicks a product entry in the Home or View List Product page
- Function description : Customer/Guest can view all of the selected product's details such as name, price, description, images...
- Screen layout:

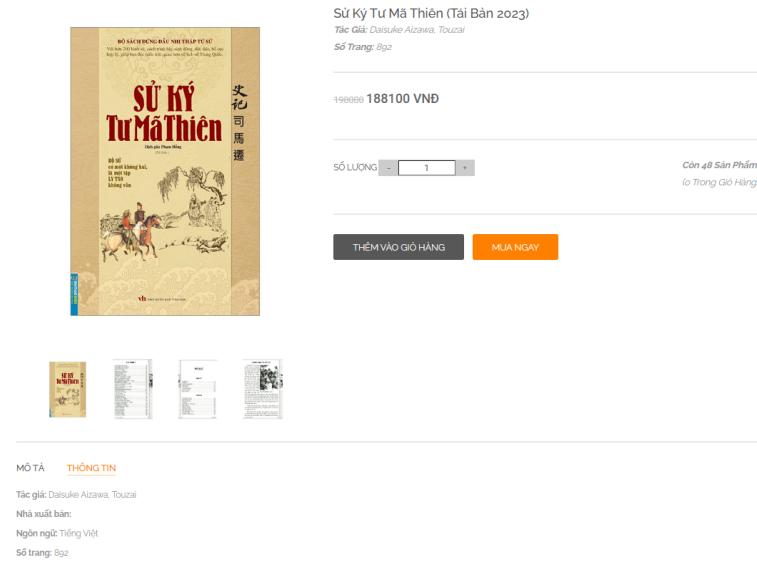


Figure 3.6.2.1: View Product detail screen

- Function details:
 - This function retrieves all information and details about the selected product and show it to the user
 - If the user tries to see the detail of a non-existent product, the system will return an error page

3.6.3 Add Product to Cart:

- Function trigger : Customer/Guest clicks the “Thêm vào giỏ hàng” or “Mua ngay” button in the View Product Detail page
- Function description : Customer/Guest adds a product to their cart to make an order later
- Screen layout:

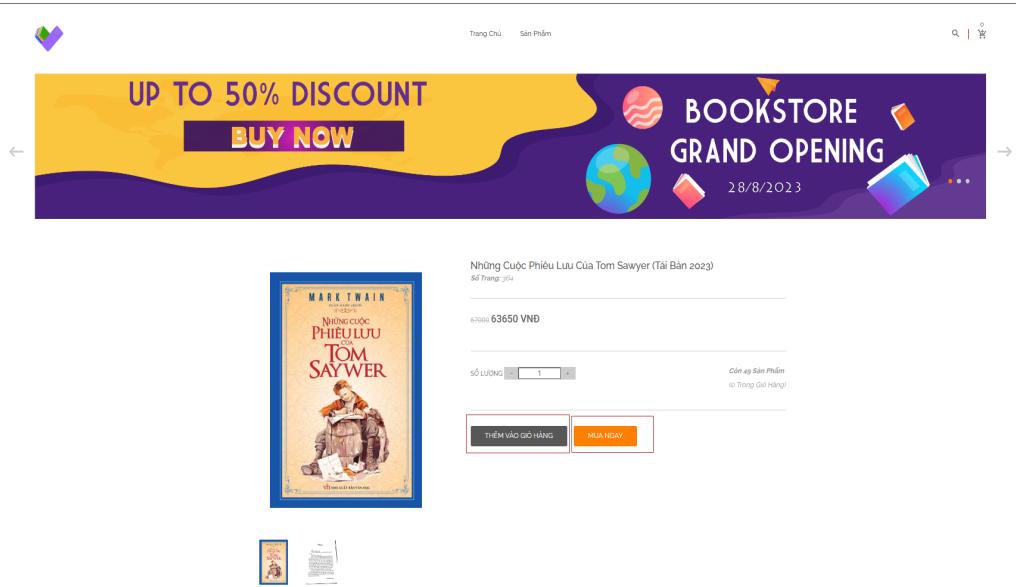
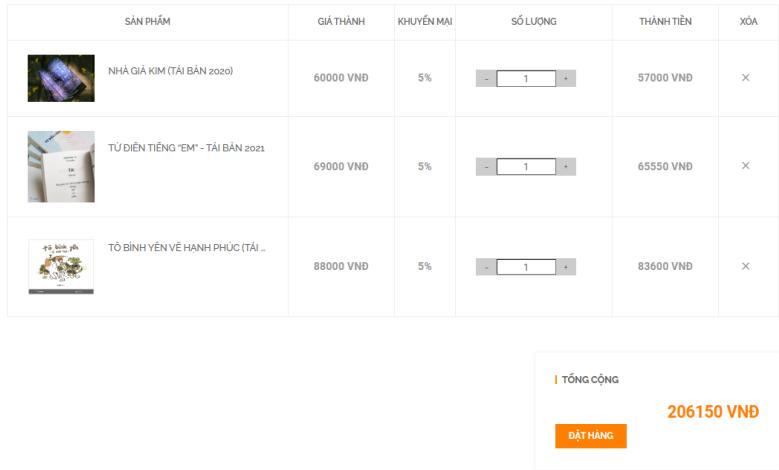


Figure 3.6.3.1: Click “Thêm vào giỏ hàng” or “Mua ngay” to add product to cart

- Function details:
 - If there are no more available products to purchased, or if the product was already deactivated, user cannot add that product to their cart
 - User change the “Số lượng” field to choose the number of products they want to add to cart. They cannot add to cart more products than what is available to purchase
 - If user clicks the “Thêm vào giỏ hàng” button, they will stay on the current View Product Detail page
 - If user clicks the “Mua ngay” button, they will be redirected to View Cart page

3.6.4 View Cart

- Function trigger : Customer/Guest clicks the cart icon on the navbar, clicks “Xem giỏ hàng” under it, or clicks the “Mua ngay” button in a View Product Detail page
- Function description : Customer/Guest can view their shopping cart before making an order
- Screen layout:



SẢN PHẨM	GIÁ THÀNH	KHUYẾN MẠI	SỐ LƯỢNG	THÀNH TIỀN	XÓA
 NHÀ GIÁ KIM (TÀI BẢN 2020)	60000 VND	5%	<input type="button" value="-"/> <input type="text" value="1"/> <input type="button" value="+"/>	57000 VND	
 TÙ ĐIỂN TIẾNG 'EM' - TÀI BẢN 2021	69000 VND	5%	<input type="button" value="-"/> <input type="text" value="1"/> <input type="button" value="+"/>	65550 VND	
 TỔ BÌNH YÊN VỀ HẠNH PHÚC (TÀI _	88000 VND	5%	<input type="button" value="-"/> <input type="text" value="1"/> <input type="button" value="+"/>	83600 VND	

| TỔNG CỘNG

206150 VND

ĐẶT HÀNG

Figure 3.6.4.1: View Cart screen

- Function details:
 - This function retrieves and displays all products and their quantity in the user's cart.
 - Logged in customer's cart will be saved even when the user logs out and logs in again

3.6.5 Update Cart:

- Function trigger :
 - Customer/Guest changes the input field in the “Số lượng” column of a product entry in the View Cart page
 - Customer/Guest clicks the X icon on the right of a product entry in the View Cart page
- Function description : Customer/Guest changes the detail of their shopping cart
- Screen layout:

SẢN PHẨM	GIÁ THÀNH	KHUYẾN MẠI	SỐ LƯỢNG	THÀNH TIỀN	XÓA
	NHỮNG CUỘC PHIÊU LƯU CỦA TOM SAW...	67000 VNĐ	5%	<input type="text" value="4"/>	254600 VNĐ

Figure 3.6.5.1: Change “Số lượng” or click X icon to update cart

- Function details:
 - If user changes the “Số lượng” field of a product, the number of that product in user's cart will be changed accordingly. If the number of a products reach 0, that product will be removed from the cart immediately
 - If user clicks the X icon on the right of a product, that product will be removed from the cart

3.6.6 (Customer) Make an Order:

- Function trigger : Logged in Customer clicks the “Đặt hàng” button in the View Cart page, or hovers over the cart icon on navbar and click “Đặt hàng” under it
- Function description : Logged in Customer makes an order with products in their cart
- Screen layout:

| ĐỊA CHỈ GIAO HÀNG

Tạ Kiến Quốc
Số 30 ngõ 520 Xã Đàn, Phường Ô Chợ Dừa, Quận Đống Đa,
Thành phố Hà Nội
0123456789

THAY ĐỔI

| ĐƠN HÀNG

Những Cuộc Phiêu Lưu Của Tom Sawyer (Tái Bản 2023) x 4	254600 VNĐ
Tổng cộng	254600 VNĐ

ĐẶT HÀNG

Figure 3.6.6.1: Customer's Make Order screen

- Function details:
 - Only logged in Customer can make an order, Guest cannot make an order
 - Customer can click the button under “Địa chỉ giao hàng” section to change the shipping information for the order. If customer has not add any shipping information beforehand, they can click it to add a new shipping information

- After a shipping information is set, customer can click “Đặt hàng” to finalise the order

3.7 Order Management

3.7.1 View List Orders:

- Function trigger : When Owner/Staff clicks “Danh sách đơn hàng” under “Đơn hàng” on the side menu bar
- Function description : Owner and Staff can view the list of all selling orders
- Screen layout:

ID	Khách hàng	Ngày tạo	Trạng thái	Tổng tiền	Chi tiết đơn hàng
1	Khach Hang A	2023-08-11	Tùy chọn	251750 VNĐ	
2	Khach Hang A	2023-08-11	Đã hoàn thành	0 VNĐ	
3	hungLee907	2023-08-01	Đã hoàn thành	942000 VNĐ	
4	Lê Mạnh Hùng Test: 5/45	2023-08-14	Đã hoàn thành	498750 VNĐ	
5	hungLee907	2023-08-14	Đã hoàn thành	265050 VNĐ	
6	Nguyen Van Truong	2023-08-16	Đã hoàn thành	862600 VNĐ	
7	Nguyen Trung Kien	2023-08-16	Chờ xác nhận	616550 VNĐ	
8	Nguyen Trung Kien	2023-08-17	Tùy chọn	206150 VNĐ	

Figure 3.7.1.1: View List Orders screen

- Function details:
 - This function retrieves and displays all selling orders in the system, with some of their details
 - If there are no orders, the page will display “Không có dữ liệu”
 - To search and filter products, the user clicks on “Bộ lọc”, then inputs order's ID or a part of the order's customer's name in the search bar, and picks order's creation date time range and order's status options to filter. The system will then show the searched and filtered result.
 - To sort the order list, the user clicks the header of an attribute column. The order list table will then be sorted in ascending order by said attribute. Click again to sort the orders in descending order.

3.7.2 Create Order:

- Function trigger : Owner/Staff clicks the “Tạo đơn hàng” button in the View List Orders page, or selects “Tạo đơn hàng mới” under “Đơn hàng” on the sidebar menu
- Function description : Create a new order for a customer
- Screen layout:

The screenshot shows a user interface for creating a new order. At the top, a progress bar indicates the status: 'TAO ĐƠN' (Create Order) is completed (blue circle with checkmark), while 'CHỜ XÁC NHẬN' (Wait for Confirmation), 'ĐANG XỬ LÝ' (Processing), 'ĐANG VẬN CHUYỂN' (In Transit), 'ĐÃ GIAO HÀNG' (Delivered), and 'ĐÃ HOÀN THÀNH' (Completed) are in progress (grey circles).

Địa chỉ giao hàng

Tạ Trung Kiên X
Số điện thoại: 0983389165
Địa chỉ: Số 30 ngõ 520 Xã Đàn, Phường Ô Chợ Dừa, Quận Đống Đa, Thành phố Hà Nội

Thông tin bổ sung

Ghi chú hóa đơn

Chi tiết đơn hàng

Thêm sản phẩm theo mã SP, tên SP

STT	Ảnh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
		Sử Ký Tư Mã Thiên (Tái Bản 2023)	Quyển	1	198000	5 %	188,100 VNĐ
2		Những Cuộc Phiêu Lưu Của Tom Sawyer (Tái Bản 2023)	Quyển	1	67000	5 %	63,650 VNĐ

Thêm sản phẩm theo mã SP, tên SP

STT	Ảnh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
1		Sử Ký Tư Mã Thiên (Tái Bản 2023)	Quyển	1	198000	5 %	188,100 VNĐ
2		Những Cuộc Phiêu Lưu Của Tom Sawyer (Tái Bản 2023)	Quyển	1	67000	5 %	63,650 VNĐ

Cộng tiền hàng: 251,750 VNĐ
Thuế GTGT: 0 %
Tổng tiền thanh toán: 251,750 VNĐ
Số tiền khách đã trả: 0 VNĐ
Chuyển khoản
Số tiền còn thiếu: 251,750 VNĐ

Lưu Hủy

Figure 3.7.2.1: Create order screen

- Function details:
 - Authorised users can choose the new order's shipping information in the "Địa chỉ giao hàng" section. They can also add a new shipping information by clicking "Thêm nhanh địa chỉ giao hàng"
 - Authorised users can choose the products in the orders in the "Chi tiết đơn hàng" section. After choosing a product, they can edit its quantity, price and discount
 - Authorised users can optionally input the VAT, amount of paid money and change the paying method for the order below the products table
 - After a shipping information and at least a product is chosen, user clicks the "Lưu" button to create a new order and save it to the database

3.7.3 View Order Detail:

- Function trigger : Owner/Staff click on the eye icon of a specific order entry in the View List Orders page
- Function description : Owner/Staff can view detailed information about the selected order
- Screen layout:

Bảng quản lý đơn hàng

BỘ LỌC							Nhập File	Xuất File	Tạo Đơn Hàng Mới
Hiển thị	10	kết quả					Tim kiếm:		
ID	Tên Khách hàng	Ngày tạo	Trạng thái	Tổng tiền	Chi tiết đơn hàng				
1	Khach Hang A	2022-08-11	Đã hủy	251750 VNĐ					
2	Khach Hang A	2023-08-11	Đã hoàn thành	0 VNĐ					
3	hungLee307	2023-08-01	Đã hoàn thành	342000 VNĐ					
4	Lê Mạnh Hùng Test: 5:45	2023-08-14	Đã hoàn thành	498750 VNĐ					
5	hungLee307	2023-08-14	Đã hoàn thành	265050 VNĐ					
6	Nguyen Van Truong	2023-08-16	Đã hoàn thành	862500 VNĐ					
7	Nguyen Trung Kien	2023-08-16	Chờ xác nhận	616550 VNĐ					
8	Nguyen Trung Kien	2023-08-17	Đã hủy	206150 VNĐ					

Từ 1 đến 8 trên tổng 8

Trước | Tiếp

Figure 3.7.3.1: Click eye icon to view order detail

Bookstore

Đơn hàng | Chi tiết đơn hàng

Thao tác: TẠO ĐƠN CHỜ XÁC NHẬN ĐÃ XỬ LÝ ĐÃ VĂN CHUYỂN ĐÃ GIAO HÀNG ĐÃ HOÀN THÀNH

Khách hàng

Tên khách hàng: Nguyen Trung Kien
Số điện thoại: 0346884399

Địa chỉ giao hàng

Tên người nhận: Nguyen Trung Kien
Số điện thoại: 0346884399
Địa chỉ: hn

Lịch sử thanh toán

Tiền khách cần trả: 616550 VNĐ
Đã trả: 0 VNĐ
Còn phải trả: 616550 VNĐ

Chi tiết đơn hàng

Figure 3.7.3.2: View Order Detail screen

The screenshot shows the 'Chi tiết đơn hàng' (Order Detail) page. On the left is a sidebar with navigation links: Tài khoản, Thống kê, Nhân viên, Nhật ký hoạt động, Sản phẩm, Khách hàng, Đơn hàng, and Nhập hàng. The main content area displays a table with three rows of order details:

STT	Ảnh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
1		Những Cuộc Phiêu Lưu Của Tom Sawyer (Tái Bản 2023)	Quyển	5	67000 VNĐ	5%	318250 VNĐ
2		Từ Điển Tiếng "Em" - Tái Bản 2021	Quyển	2	69000 VNĐ	5%	131100 VNĐ
3		TÔ Brinh Yên Về Hạnh Phúc (Tái Bản 2022)	Quyển	2	88000 VNĐ	5%	167200 VNĐ

Below the table, there is a summary of costs:

Cộng tiền hàng	616550 VNĐ
Thuế GTGT	0%
Tổng tiền thanh toán	616550 VNĐ
Số tiền khách đã trả	0 VNĐ
Số tiền còn thiếu	616550 VNĐ

At the bottom are three buttons: Xác Nhận (Confirm), Hủy Đơn (Cancel), and Quay Lại (Back).

- Function details:

- This function retrieves all information about the selected order and display them
- If the user tries to see the detail of a non-existent order, the system will return an error page

3.7.4 Update Order Status:

- Function trigger : Owner/Staff clicks the “Xác nhận”, “Giao hàng”, or “Đã giao” blue button (depending on the current order’s status), or clicks the “Hủy đơn” red button in the View Order Detail page
- Function description : Owner/Staff update the status of an order
- Screen layout:

The screenshot shows the 'Chi tiết đơn hàng' (Order Detail) page. The sidebar and table structure are identical to the previous screenshot. The summary costs are:

Cộng tiền hàng	251750 VNĐ
Thuế GTGT	0%
Tổng tiền thanh toán	251750 VNĐ
Số tiền khách đã trả	0 VNĐ
Số tiền còn thiếu	251750 VNĐ

At the bottom are three buttons: Giao Hàng (Ship), Hủy Đơn (Cancel), and Quay Lại (Back). The 'Giao Hàng' button is highlighted in blue.

Figure 3.7.4.1: Click “Giao hàng” to change order’s status

Chi tiết đơn hàng

STT	Ảnh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
		Sứ Ký Tư Mã Thiên (Tái Bản 2023)	Quyển	1	198000 VNĐ	5%	188100 VNĐ
		Những Cuộc Phiêu Lưu Của Tom Sawyer (Tái Bản 2023)	Quyển	1	67000 VNĐ	5%	63650 VNĐ
Cộng tiền hàng							251750 VNĐ
Thuế GTGT							0%
Tổng tiền thanh toán							251750 VNĐ
Số tiền khách đã trả							0 VNĐ
Số tiền còn thiếu							251750 VNĐ

[Giao Hàng](#)
Hủy Đơn
[Quay Lại](#)

Figure 3.7.4.2: Click “Hủy đơn” to cancel order

- Function details:
 - If user clicks the “Xác nhận”, “Giao hàng”, or “Đã giao” blue button (depending on the current order’s status), the current order’s status will be updated accordingly and save to database
 - If user clicks the “Hủy đơn” red button, the current order will be cancelled

3.7.5 Add Order Payment:

- Function trigger : Owner/Staff clicks the “Thanh toán” button in the View Order Detail page
- Function description : Owner/Staff add a new payment history for an order
- Screen layout:

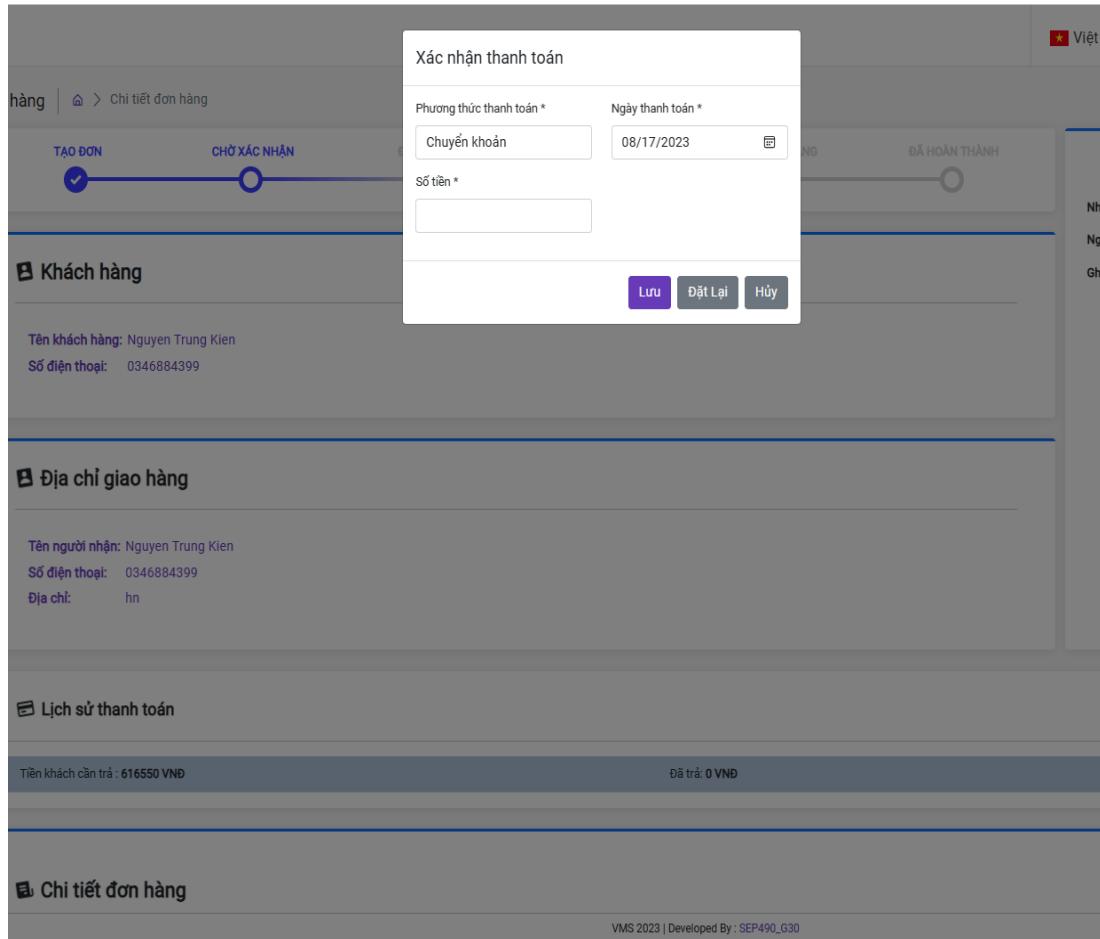


Figure 3.7.5.1: Add order payment screen

- Function details:
 - After choosing the payment method, payment date and inputting the payment amount, user can click “Lưu” to save the payment entry to the database

3.8 Purchase Order Management

3.8.1 View purchase order:

- Function trigger : when Owner/Staff select “Danh sách hoá đơn nhập” in side menu bar
- Function description : Owner/Staff will view and manage the list of purchase order
- Screen layout:

The screenshot shows the 'Quản lý đơn nhập' (Purchase Order Management) screen. On the left, there is a sidebar with various menu items: Tài khoản, Thống kê, Nhân viên, Nhật ký hoạt động, Sản phẩm, Khách hàng, Đơn hàng, Nhập hàng (selected), Danh sách hóa đơn nhập, Thêm hóa đơn nhập, and Nhà cung cấp. The main area displays a table with two rows of purchase order data. The columns are: Mã đơn (Order ID), Nhà cung cấp (Supplier), Ngày nhập (Import Date), Trạng thái (Status), and Nhân viên xử lý (Processor). The first row has Supplier 'Nhà cung cấp A' and Date '8/19/2023 6:19:37 PM'. The second row also has Supplier 'Nhà cung cấp A' and Date '8/19/2023 6:20:30 PM'. Both rows show 'Hoàn thành' (Completed) in the status column. There are search and filter options at the top right, and navigation buttons (Trước, Tiếp) at the bottom right.

Figure 3.8.1.1: View purchase order list screen

- Function details: All list of purchase order will be displayed when click on “Danh sách hoá đơn nhập”

3.8.2 Create purchase order:

- Function trigger : when Staff select “Tạo hoá đơn nhập” in side menu bar or click on “Tạo đơn nhập mới” in View list purchase order page.
- Function description: Staff can create a new purchase order
- Screen layout:

The screenshot shows the 'Create purchase order' interface. On the left, a sidebar lists various modules like Tài khoản, Thông kê, Nhân viên, Nhật ký hoạt động, Sản phẩm, Khách hàng, Đơn hàng, Nhập hàng, and sub-options like Danh sách hóa đơn nhập, Thêm hóa đơn nhập, and Nhà cung cấp. The 'Nhập hàng' option is currently selected. The main area has two tabs: 'Nhà cung cấp' (Supplier) and 'Chi tiết đơn hàng' (Order details). In the Supplier tab, there's a dropdown menu labeled 'Chọn nhà cung cấp...' and a green button labeled 'Thêm Nhanh Nhà Cung Cấp'. In the Order details tab, there's a search bar with placeholder 'từ điển' and a table with one row. The table columns are STT, Ảnh, Tên SP, Đơn vị, Số lượng, Đơn giá, Chiết khấu, Thành tiền, and a delete icon. The row data is: 1, image of a book, 'Túi Điện Tiếng 'Em'' - Tài Bản 2021, Quyển, 1, 20001, 0, 20,001 VND, and a delete icon. Below the table are several summary fields: Cộng tiền hàng (20,001 VND), Thuế GTGT (5%), Tổng tiền thanh toán (21,002 VND), Số tiền đã trả (0 VND), and Số tiền còn thiếu (21,002 VND). At the bottom right are two buttons: 'Thoát' (Cancel) and a green 'Tạo Đơn' (Create Order) button.

Figure 3.8.2.1: Create purchase order screen

- Function details:
 - Select a supplier to create a new order. If a supplier does not exist, click on “Thêm nhà cung cấp”.
 - Search the product and add to order. If product is new, click on “Thêm nhanh sản phẩm mới”.
 - Enter values of empty fields to import products.
 - Click “Tạo đơn” to create order or click “Huỷ” to cancel.

3.8.3 Update Purchase order status:

- Function trigger : When Staff select view(eye) button in “Đơn nhập hàng” page
- Function description : Staff can update detail and status of purchase order
- Screen layout:

Nhập hàng | Nhập hàng > Chi tiết đơn nhập hàng

3
8/19/2023 6:24:39 PM
Tạo đơn hàng

Nhà cung cấp A

Supp1
Số điện thoại: 0985457175
Địa chỉ: Phường Phúc Xá, Quận Ba Đình, Thành phố Hà Nội

Chi tiết đơn hàng

STT	Ảnh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
1		How Business Works - Hiểu Hết Về Kinh Doanh	Quyển	12	265335 VNĐ	0 %	3184020 VNĐ

Tổng tiền hàng
Thuế GTGT
Tổng tiền đã thanh toán
Còn phải trả

3343221
5%
3343221
0

Nhân viên phụ trách: OverFullName
Ghi chú:

Nhập Hàng | Sửa Đơn | Hủy Đơn | Thoát

Figure 3.8.3.1: Update purchase order status screen

Nhập hàng | Nhập hàng > Chi tiết đơn nhập hàng

3
8/19/2023 6:24:39 PM
Đã nhập

Nhà cung cấp A

Supp1
Số điện thoại: 0985457175
Địa chỉ: Phường Phúc Xá, Quận Ba Đình, Thành phố Hà Nội

Chi tiết đơn hàng

STT	Ảnh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
1		How Business Works - Hiểu Hết Về Kinh Doanh	Quyển	12	265335 VNĐ	0 %	3184020 VNĐ

Tổng tiền hàng
Thuế GTGT
Tổng tiền đã thanh toán
Còn phải trả

3343221
5%
3343221
0

Cập nhật đơn hàng thành công

Nhân viên phụ trách: OverFullName
Ghi chú:

Đã Thanh Toán | Thoát

Figure 3.8.3.2: Update purchase order status successfully

- Function details:

- Click on “Nhập hàng” to confirm order or “Huỷ đơn” to discard the order.
- After confirming the purchase order, “Đã thanh toán” button is displayed and you can click to complete the order.

3.8.4 Update purchase order detail:

- Function trigger : When Staff click to button “Sửa đơn” in purchase order detail page
- Function description : Staff can update detail purchase order

STT	Ánh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
1		Sứ Ký Tư Mã Thiên (Tái Bản 2023)	Quyển	1	50050 VND	30 %	35035 VND

Figure 3.8.4.1: Update purchase order details screen

STT	Ánh	Tên SP	Đơn vị	Số lượng	Đơn giá	Chiết khấu	Thành tiền
1		Sứ Ký Tư Mã Thiên (Tái Bản 2023)	Quyển	1	50050	30 %	35,035 VND
2		Cây Cam Ngọt Của Tôi	Quyển	1	30019	30 %	21,014 VND

Cộng tiền hàng: 56,049 VND
Thuế GTGT: 5 %
Tổng tiền thanh toán: 58,851 VND

Figure 3.8.4.2: Update purchase order details successfully

- Function details: - If an order is in status “Tạo đơn hàng”. Its details can be edited. all steps are similar to Create function(3.8.2). The difference between edit purchase and create purchase order is when edit purchase order, cannot edit order that has a total price smaller than paid amount for this purchase order and cannot edit amount of paid.

3.9 Account Staff Management

3.9.1 View List Account Staff:

- Function trigger : When Owner select “Danh sách nhân viên” in side menu bar
- Function description : Owner will view and manage the list of employees
- Screen layout:

The screenshot shows a user interface for managing staff accounts. On the left is a sidebar with icons for Tài khoản, Thống kê, Nhân viên (selected), and other modules like Nhập hàng. The main area has a title 'Nhân viên' and a sub-section 'Bảng quản lý nhân viên'. It displays a table with two rows of employee data. The columns are: Ảnh (Photo), Tên nhân viên (Name), Email, Số điện thoại (Phone), Địa chỉ (Address), Chức vụ (Position), Trạng thái (Status), and Hành động (Action). The first employee is 'Staff1FullName' with email 'staff1@gmail.com' and phone '0123456789'. The second employee is 'Staff2FullName' with email 'staff2@gmail.com' and phone '0123456789'. Both are listed as 'Nhân viên' in the position column and have their status set to 'On'. There are also eye and edit icons for each row.

Figure 3.9.1.1: View List Account screen

- Function details: The system will list all employees

3.9.2 Create Account:

- Function trigger : when Owner select “Thêm nhân viên” in side menu bar
- Function description : Owner creates a new account for Staff
- Screen layout:

The screenshot shows a 'TẠO NHÂN VIÊN MỚI' (Create New Staff) form. At the top, it says 'Chủ cửa hàng' and 'Nhân viên'. Below is a section titled 'Thông tin nhân viên' (Staff Information). The form fields include:

- Họ và Tên (Name): Nhập tên (Enter name)
- Số CCCD/CMND (ID Card/Passport): Nhập số CCCD/CMND (Enter ID Card/Passport number)
- Ảnh đại diện (Profile Picture): A placeholder box with a blue border.
- Tên đăng nhập (Login Name): noaowuaw@gmail.com
- Mật khẩu (Password): (Redacted)
- Số điện thoại (Phone): Nhập số điện thoại (Enter phone number)
- Ngày sinh (Date of Birth): dd/mm/yyyy (Redacted)
- Giới tính (Gender): Radio buttons for Nam (Male) and Nữ (Female).
- Địa chỉ (Address): Nhập địa chỉ chi tiết (Enter detailed address)

At the bottom are two buttons: 'Hủy' (Cancel) and 'Lưu' (Save).

Figure 3.9.2.1: Create staff account screen

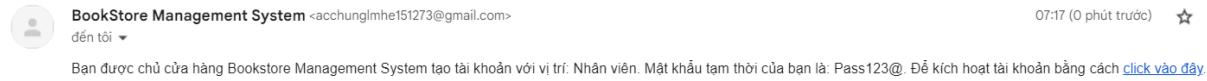


Figure 3.9.2.2: Staff account confirmation email

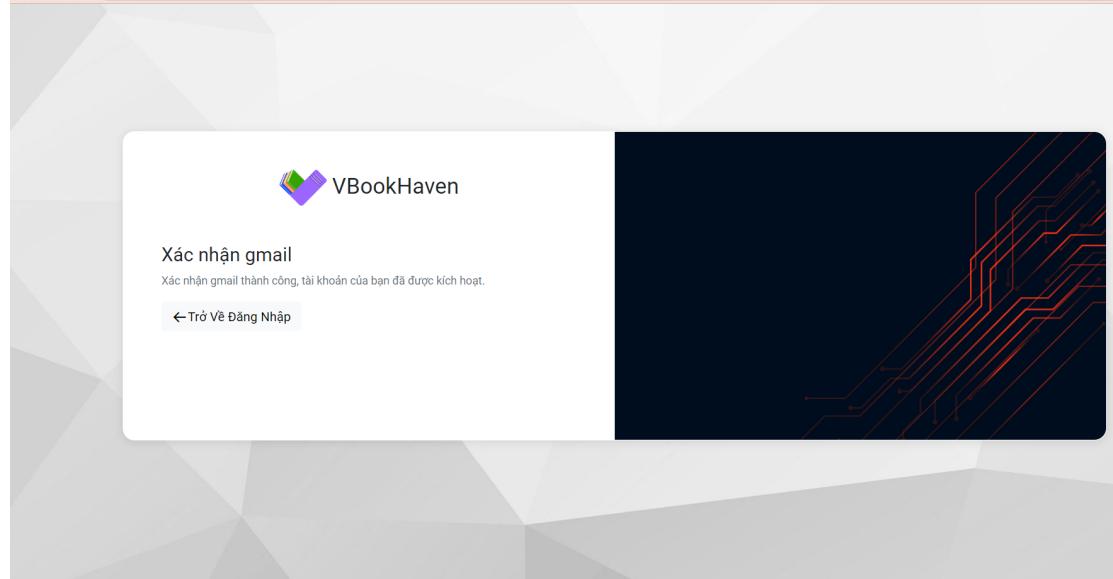


Figure 3.9.2.3: After clicking confirmation link

- Function details:
 - At the add new employee page. Owner input all the information of employee and click on button “Lưu” to save or “Huỷ” to Cancel. After clicking “Lưu”, the system will send an email with a notification and access password to the employee.
 - If the attributes are not filled in, a message that the attribute is required will be displayed.
 - If Email is already registered, The inline error message “This email is already existed” is displayed

3.9.3 Update Account

- Function trigger : When the user clicks on the "eye" icon at the employee management page
- Function description : Owner updates the information of accounts in the system
- Screen layout:

Figure 3.9.3.1: Update staff account screen

- Function details:
 - This function allows the owner to modify the details of an existing staff, such as name, staff code, role, identity number, and phone number, based on the staff ID, which are then validated and updated in the database for future use.
 - If the details of the staff are missing some required fields, User has to fill in all the missing information.

3.9.4 Enable/Disable staff

- Function trigger : An owner wants to use a method to enable/disable status of the staff who currently has the status of disabled/enabled
- Function description : As an owner, I want to enable/disable the status of a staff member who has an account in my storage.
- Screen layout:

Bảng quản lý nhân viên								+Thêm Nhân Viên Mới
Hiển thị: 10	kết quả							Tìm kiếm:
Ảnh	Tên nhân viên	Email	Số điện thoại	Địa chỉ	Chức vụ	Trạng thái	Hành động	
	Staff1FullName	staff1@gmail.com	0123456789	123 Example Street, City, Country	Nhân viên	<input checked="" type="checkbox"/>		
	Staff2FullName	staff2@gmail.com	0123456789	123 Example Street, City, Country	Nhân viên	<input checked="" type="checkbox"/>		
	họ tên st1	hunglmhe151273@fpt.edu.vn	0123456789	địa chí ...	Nhân viên	<input checked="" type="checkbox"/>		
	Nhân viên A	noaowuaw@gmail.com	1234567891	Số nhà...	Nhân viên	<input checked="" type="checkbox"/>		

Từ 1 đến 4 trên tổng 4

Trước 1 Tiếp

Figure 3.9.4.1: Click “Trạng thái” button to disable staff

Bảng quản lý nhân viên

Hiển thị: 10 | Kết quả

Tìm kiếm:

Ánh ↑ | Tên nhân viên ↑ | Email ↑ | Số điện thoại | Địa chỉ | Chức vụ | Trạng thái ↑ | Hành động

Ánh	Tên nhân viên	Email	Số điện thoại	Địa chỉ	Chức vụ	Trạng thái	Hành động
	Staff1FullName	staff1@gmail.com	0123456789	123 Example Street, City, Country	Nhân viên	<input checked="" type="checkbox"/>	
	Staff2FullName	staff2@gmail.com	0123456789	123 Example Street, City, Country	Nhân viên	<input checked="" type="checkbox"/>	
	họ tên st1	hunglmhe151273@fpt.edu.vn	0123456789	địa chỉ ...	Nhân viên	<input checked="" type="checkbox"/>	
	Nhân viên A	noaowuaw@gmail.com	1234567891	Số nhà...	Nhân viên	<input checked="" type="checkbox"/>	

Từ 1 đến 4 trên tổng 4

Trước | 1 | Tiếp

Figure 3.9.4.2: After disabling staff successfully

- Function details:

- This function changes the working status of a staff from disabled/enabled to enabled/disabled. The staff after enabled can be in charge of internal action of the website. Meanwhile, the staff after disabled can't access the page any more.

3.10 (Staff/Owner)Profile Management

3.10.1 View profile:

- Function trigger : This function is triggered when the owner/staff wants to view his/her profile information.
- Function description As a(n) owner/seller, I want to view my personal information which I save in the system
- Screen layout:

The screenshot shows a user profile management interface. At the top left is a user icon and the text 'Thông tin cá nhân'. On the right, it says 'Ảnh đại diện' with a placeholder image showing a blue outline of a person's head and shoulders. The main area contains several input fields:

- Họ và tên: 'OwnerFullName'
- Số CMND: '123456789101'
- Email: 'acchunglmhe151273@gmail.com'
- Chức vụ: 'Chủ cửa hàng'
- Số điện thoại: '0123456789'
- Ngày sinh: '01/01/2001' with a calendar icon
- Giới tính: Radio buttons for 'Nam' (selected) and 'Nữ'
- Địa chỉ: '123 Example Street, City, Country'

At the bottom are three buttons: 'Hủy' (Cancel), 'Đổi Mật Khẩu' (Change Password), and 'Lưu' (Save).

Figure 3.10.1.1: View Profile screen

- Function details: :The owner/staff views his/her full personal information. The screen provides functions to view personal information.

3.10.2. Edit user profile:

- Function trigger : This function is triggered when an authorised user requests to update their profile information
- Function description : As a(n) owner/staff, I want to edit my personal information which I saved in the system before.

- Screen layout:

Thông tin cá nhân

Họ và tên: OwerFullName | Số CMND: 123456789101

Email: acchunglmhe151273@gmail.com | Chức vụ: Chủ cửa hàng

Số điện thoại: 0123456789 | Ngày sinh: 01/01/2001 | Giới tính: ♂ Nam ♀ Nữ

Địa chỉ: 123 Example Street, City, Country

Ảnh đại diện

Hủy **Đổi Mật Khẩu** **Lưu**

Figure 3.10.2.1: Edit user profile screen

- Function details:

- This function allows authorised users to modify the details of an existing profile information, such as their name (which is required), identity number, gender, avatar and phone number.
- If the details of the user are missing some required fields, User has to fill in all the missing information .

3.10.3 Change password

- Function trigger : This function is triggered when a user requests to change their current password.
- Function description: As a(n) owner/staff, I want to change the current password of my account.
- Screen layout:

Đổi mật khẩu

Mật khẩu hiện tại:
Mật khẩu mới:
Xác nhận mật khẩu:

Hồ sơ cá nhân

Tai khoản | Hồ sơ | Hồ sơ CÁ NHÂN

Họ và tên: Tạ Kiến Quốc | Chức vụ: Chủ cửa hàng

Email: staff1@gmail.com | Ngày sinh: 06/30/2001 | Giới tính: ♂ Nam ♀ Nữ

Số điện thoại: 0123456789 | Địa chỉ: Hà Nội

Ảnh đại diện

Hủy **Đổi Mật Khẩu** **Lưu**

Figure 3.10.3.1: Change password screen

- Function details:

- The user can update the password for his/her account.
- If Password and confirm password is not matched, the inline error message “Mật khẩu phải trùng nhau” is displayed till confirm password matches the password
- If password does not meet requirements, the inline error message “Mật khẩu phải có ít nhất một ký tự không thuộc bảng chữ cái, một chữ số và một chữ cái in hoa” is displayed
- Password or confirm password field is not filled, the inline error message will display and can not save.

3.11. (Customer)Profile Management

3.11.1 View profile:

- Function trigger: This function is triggered when the customer wants to view his/her profile information.
- Function description As a customer, I want to view my personal information which I save in the system
- Screen layout:

The screenshot shows a web-based application interface for managing a customer profile. At the top, there is a navigation bar with links for 'Trang Chủ' and 'Sản Phẩm'. On the far right, there are search and filter icons. The main content area has a header 'Thông tin tài khoản'. On the left, a sidebar lists 'Thông tin tài khoản', 'Quản lý đơn hàng', 'Số địa chỉ', 'Thông tin thanh toán', and 'Sản phẩm yêu thích'. The central panel is titled 'Thông tin cá nhân' and contains fields for 'Họ và tên' (Nguyễn Trung Kiên), 'Ngày sinh' (08/02/2003), 'Giới tính' (Nam), and 'Số điện thoại' (0346884399). To the right, there is an 'Email' section with 'Địa chỉ email' (bmd2403@gmail.com) and a 'Bảo mật' section with a 'Thiết lập mật khẩu' button. At the bottom right of the central panel is an orange 'LƯU THAY ĐỔI' button.

Figure 3.11.1.1: View profile screen

- Function details: The customer views his/her full personal information. The screen provides functions to view personal information.

3.11.2 Edit user profile:

- Function trigger : This function is triggered when an authorised user requests to update their profile information
- Function description : As a customer, I want to edit my personal information which I saved in the system before.
- Screen layout:

This screenshot is identical to Figure 3.11.1.1, showing the 'View profile' screen. The only difference is that the 'Email' section now includes a 'Thiết lập mật khẩu' button, indicating that the user can also edit their password from this screen.

Figure 3.11.2.1: Edit user profile screen

- Function details:

- This function allows authorised users with the customer role to modify the details, such as their name (which is required), gender, avatar and phone number.
- If the details of the user are missing some required fields, User has to fill in all the missing information.

3.11.3 Change password

- Function trigger: This function is triggered when a user requests to change their current password.
- Function description: As a(n) owner/staff, I want to change the current password of my account.
- Screen layout:

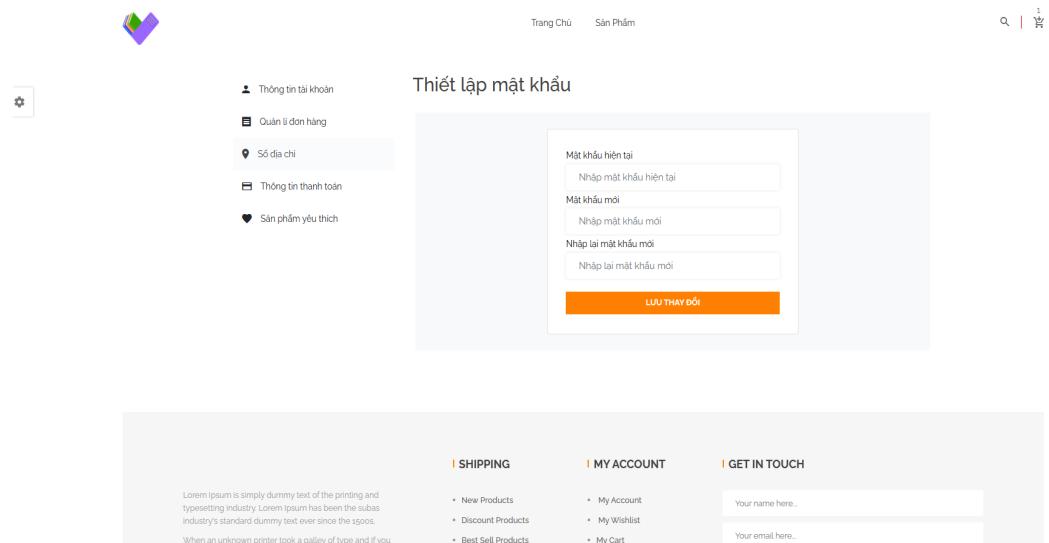


Figure 3.11.3.1: Change password screen

- Function details:
 - The user can update the password for his/her account.
 - If Password and confirm password is not matched, the inline error message “Mật khẩu phải trùng nhau” is displayed till confirm password matches the password
 - Password or confirm password field is not filled, the inline error message will display and can not save.

3.12. (Staff/Owner)Shipping Management

3.12.1 View Shipping information list:

- Function trigger: This function is triggered when the user wants to view his/her shipping information. Select “Số địa chỉ” in Profile management
- Function description: As a staff/owner, I want to view my shipping information
- Screen layout:

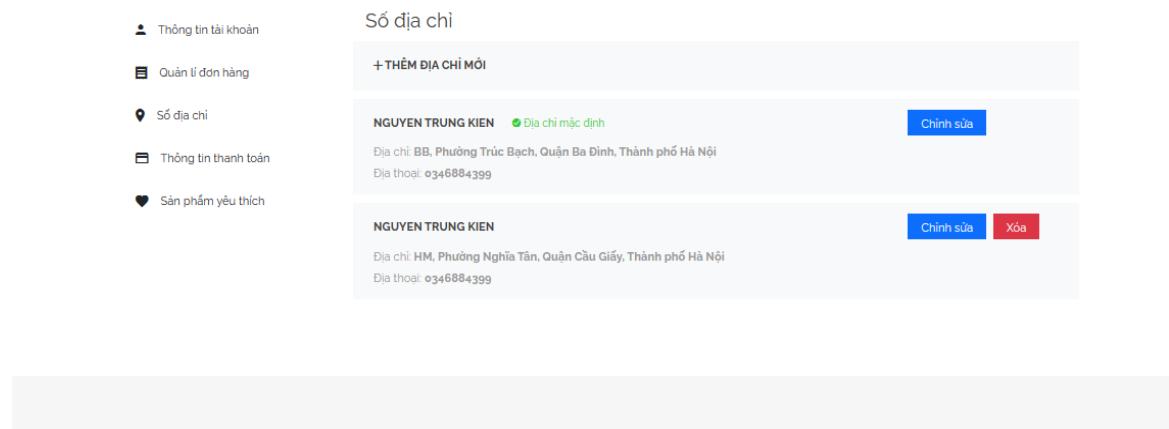


Figure 3.12.1.1: View Shipping information list screen

- Function details: Select “Số địa chỉ” in Profile management. List of shipping infomation will be displayed

3.12.2 Add Shipping information

- Function trigger: This function is triggered when a user requests to add a new shipping address. Click on “+ Thêm địa chỉ mới”
- Function description: As a Customer, I want to add a new shipping information to receive order
- Screen layout:

Họ và tên:	Nguyen Trung Kien
Số điện thoại:	0346884399
Tỉnh/Thành phố:	Thành phố Hà Nội
Quận/huyện:	Quận Hoàn Kiếm
Phường/xã:	Phường Đồng Xuân
Địa chỉ:	123

Figure 3.12.2.1: Add Shipping information screen

- Function details:
 - The user fills all the empty fields. select City, district, ward.
 - Click on “Lưu” to save or click on “quay lại” to cancel.
 - If clicking on checkbox “Đặt làm mặc định” or the only one address, it will be default address.

3.12.3 Edit Shipping information:

- Function trigger : This function is triggered when an authorised user requests to update their shipping information
- Function description : As a customer, I want to edit my shipping information which I saved in the system before.
- Screen layout:

The screenshot shows a user interface for managing shipping addresses. On the left, there's a sidebar with icons for account info, order management, address, payment info, and favorite products. The main area is titled "Thêm địa chỉ nhận hàng mới". It contains fields for Name (Tạ Kiến Quốc), Phone (0123456789), Province/City (Hà Nội), District (Đống Đa), Ward/Borough (Phường Ô Chợ Dừa), and Address (Số 30 ngõ 620 Xã Đàn). A "Lưu" (Save) button is at the bottom.

Figure 3.12.3.1: Edit Shipping information screen

- Function details:
 - This function allows authorised users with the customer to modify the shipping information, such as their name, avatar and phone number.
 - If the details of the user are missing some required fields, User has to fill in all the empty fields.

3.12.4 Delete Shipping information

- Function trigger: This function is triggered when a user wants to delete shipping information.
- Function description: customer want to delete shipping address
- Screen layout:

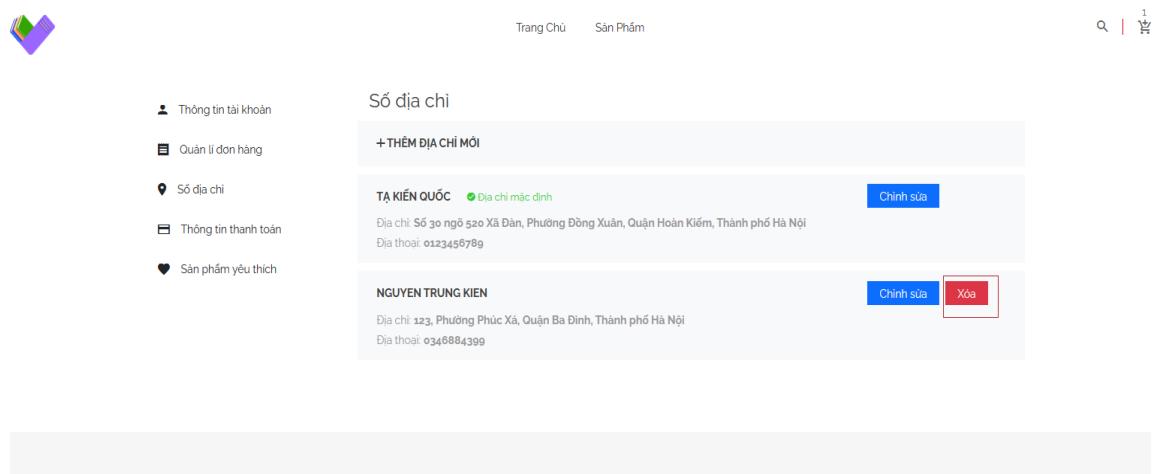


Figure 3.12.4.1: Delete shipping information screen

- Function details:
 - Clicking on the “Xóa” button to delete the shipping information. Click on Xác nhận to confirm or Huỷ to cancel.

3.13 Supplier Management

3.13.1 View list of suppliers:

- Function trigger: This function is triggered when a user wants to see all of the suppliers available in the system
- Function description: As an owner/staff, I want a function to view a list of suppliers.
- Screen layout:

The screenshot shows a web-based application interface for managing suppliers. On the left, there is a sidebar with various menu items: Tài khoản, Thống kê, Nhân viên, Nhật ký hoạt động, Sản phẩm, Khách hàng, Đơn hàng, Nhập hàng (selected), Danh sách hóa đơn nhập, Thêm hóa đơn nhập, and Nhà cung cấp (selected). The main content area has a header 'Nhà cung cấp > Quản lý nhà cung cấp'. Below the header is a sub-header 'Danh sách nhà cung cấp'. There are buttons for Nhập File, Xuất File, and '+ Tạo Nhà Cung Cấp'. A search bar labeled 'Tim kiếm:' is present. The main table displays four rows of supplier data:

Tên nhà cung cấp	Số điện thoại	Email	Trạng thái	Địa chỉ	Hoạt động
Nhà cung cấp A	0985457175		Đang giao dịch	Số nhà ... , Phường Phúc Xá, Quận Ba Đình, Thành phố Hà Nội	<input type="checkbox"/>
Nhà cung cấp A	0985457175		Đang giao dịch		<input type="checkbox"/>
Nhà cung cấp C	0985457175		Đang giao dịch		<input type="checkbox"/>
Tên nhà cung cấp 8	0123456798	Storekeeper1@gmail.com	Đang giao dịch	so nhà 20, Phường Phúc Xá, Quận Ba Đình, Thành phố Hà Nội	<input type="checkbox"/>

Below the table, it says 'Từ 1 đến 4 trên tổng 4'.

Figure 3.13.1.1: View list of supplier screen

- Function details:
 - This function retrieves and displays all the supplier information available in the system, including their name, contact details, email, status and address.
 - If list of suppliers is empty, The website shows the inline message “Không dữ liệu” .

3.13.2 Search supplier:

- Function trigger: A(n) owner/staff wants to use a method to search the supplier by supplier name
- Function description: As a(n) owner/staff, I want to search the supplier by all fields in the data table.
- Screen layout:

						Nhập File	Xuất File	+ Tạo Nhà Cung Cấp
						Tim kiếm		
Tên nhà cung cấp	Số điện thoại	Email	Trạng thái	Địa chỉ	Hoạt động			
Nhà cung cấp A	0985457175		Bang giao dịch	Số nhà ..., Phường Phúc Xá, Quận Ba Đình, Thành phố Hà Nội	<input checked="" type="checkbox"/> <input type="checkbox"/>			
Nhà cung cấp A	0985457175		Bang giao dịch		<input checked="" type="checkbox"/> <input type="checkbox"/>			
Nhà cung cấp C	0985457175		Bang giao dịch		<input checked="" type="checkbox"/> <input type="checkbox"/>			
Tên nhà cung cấp B	0123456798	Storekeeper1@gmail.com	Bang giao dịch	so nha 20, Phường Phúc Xá, Quận Ba Đình, Thành phố Hà Nội	<input checked="" type="checkbox"/> <input type="checkbox"/>			

Từ 1 đến 4 trên tổng 4

Trước 1 Tiếp

Figure 3.12.2.1: Search supplier screen

- Function details:
 - The owner/seller searches the supplier by all field input on the search bar.

3.13.3 Create supplier:

- Function trigger: This function is triggered when staff attempts to create a new supplier in the system.
- Function description: As a staff, I want to create a supplier.
- Screen layout:

👤 Thông tin nhà cung cấp

Tên Nhà Cung Cấp	Nhập tên		
Số điện thoại	Số điện thoại	Email	Nhập email
Tỉnh/Thành Phố	Quận/Huyện	Phường/Xã	
Chọn Tỉnh/Thành Phố	Chọn Quận/Huyện	Chọn Phường/Xã	
Địa chỉ chi tiết	Nhập địa chỉ chi tiết		
Ghi Chú	Nhập ghi chú		
<input type="button" value="Trở Lại"/> <input type="button" value="Tạo"/>			

Figure 3.13.3.1: Create supplier screen

- Function details:
 - This function allows staff to add a new supplier to the system by providing their details, requiring supplier name and phone number, and other details such as email, address and note, which are then validated and stored in the database for future use
 - If required fields are not filled, information can not be saved.

- User input wrong data types. Users must input accurate data types of fields, for example the phone number must not contain letters.

3.13.4 Edit supplier

- Function trigger: Staff wants to edit details of a supplier
- Function description: As a staff, I want to edit details of a supplier details
- Screen layout:

The screenshot shows a web-based form titled 'Thông tin nhà cung cấp' (Supplier Information). The form includes the following fields:

- Tên Nhà Cung Cấp:** Nhà cung cấp A (with a status toggle switch)
- Số điện thoại:** 0985457175 (Email field: Nhập email)
- Tỉnh/Thành Phố:** Thành phố Hà Nội (Quận/Huyện: Quận Ba Đình, Phường/Xã: Phường Phúc Xá)
- Địa chỉ chi tiết:** Số nhà ...
- Ghi Chú:** Nhập ghi chú

At the bottom are two buttons: 'Trở Lại' (Back) and 'Lưu' (Save).

Figure 3.13.4.1: Edit supplier screen

- Function details:
 - This function allows authorised users to modify the details of an existing supplier, such as their name and contact details, based on the supplier ID, which are then validated and updated in the database for future use.
 - If required fields are not filled, information can not be saved.
 - User input wrong data types. Users must input accurate data types of fields, for example the phone number must not contain letters.

3.13.5 View details of supplier

- Function trigger: This function is triggered when a user selects a specific supplier to view its details
- Function description: As an owner/staff, I want a function to view supplier details.

- Screen layout:

The screenshot displays a user interface for viewing supplier details. At the top right is a purple button labeled "Sửa Thông Tin Nhà Cung Cấp". The main content area has two sections: "Thông tin chung" (Basic Information) and "Các sản phẩm cung cấp" (Offered Products).

Thông tin chung (Basic Information):

- Tên Nhà Cung Cấp: Nhà cung cấp A
- Email: EMAIL
- Ghi chú: GHỊ CHÚ
- Số Điện Thoại: 0985457175
- Địa Chỉ: Số nhà ..., Phường Phúc Xá, Quận Ba Đình, Thành phố Hà Nội

Các sản phẩm cung cấp (Offered Products):

Mã sản phẩm	Ảnh	Tên sản phẩm	Loại	Đơn vị	Chi tiết
PVNS		Từ Điển Tiếng "Em" - Tái Bản 2021	Văn học	Quyển	
PVN7		How Business Works - Hiểu Hết Về Kinh Doanh	Văn học	Quyển	
PVN9		Chùa Tề Bóng Tối - Tập 1 - Bản Giới Hạn - Tặng Kèm Character Card + Mini Clearfile	Văn học	Quyển	

Below the table, there is a page navigation bar with "Trước" (Previous), "Tiếp" (Next), and a page number "1".

Figure 3.13.5.1: View details of supplier screen

- Function details:

- This function retrieves and displays the detailed information about a specific supplier, such as their name, contact details, and product offerings, based on the supplier ID.

3.14 Customer Management

3.14.1 View list of customer

- Function trigger: This function is triggered when a user wants to see all of the customers in the system
- Function description: As a(n) owner/staff, I want a function to view a list of customers.
- Screen layout:

Mã khách hàng	Tên khách hàng	Số điện thoại	Nhóm khách hàng	Tổng SL đơn hàng
1	Nguyễn Trung Kiên	0346884399	Khách lẻ	2
2	Trung Kiên		Khách lẻ	0

Figure 3.14.1.1: View list of customer screen

- Function details:
 - This function retrieves and displays the detailed information about a specific supplier, such as their name, contact details, and product offerings, based on the supplier ID.

3.14.2 Create customer:

- Function trigger: This function is triggered when staff attempts to create a new supplier in the system.
- Function description: As a staff, I want to create new customer

- Screen layout:

The screenshot shows a 'Create customer' form titled 'TẠO KHÁCH HÀNG MỚI'. The left sidebar lists categories: Tài khoản, Thống kê, Nhân viên, Nhật ký hoạt động, Sản phẩm, Khách hàng (selected), Danh sách khách hàng, Thêm khách hàng, Đơn hàng, and Nhập hàng. The main form has sections for 'Thông tin khách hàng' (Customer information) and 'Địa chỉ chi tiết' (Detailed address). Fields include: Họ và tên (Name), Ngày sinh (Date of birth), Số điện thoại (Phone number), Nhóm khách hàng (Customer group) with radio buttons for Khách lẻ (Retailer) and Khách sỉ (Wholesaler), Giới tính (Gender) with radio buttons for Nam (Male) and Nữ (Female), Tỉnh/Thành Phố (Province/City), Quận/Huyện (District/Sub-district), Phường/Xã (Ward/Community), and Địa chỉ chi tiết (Detailed address). Buttons at the bottom are 'Thêm Mới' (Add New) and 'Thoát' (Exit).

Figure 3.14.2.1: Create customer screen

- Function details:

- This function allows staff to add a new customer to the system by providing their details, requiring customer name and phone number, and other details such as email, address and note, which are then validated and stored in the database for future use
- If required fields are not filled, information can not be saved.

3.14.3 View details of customer

- Function trigger: This function is triggered when a user selects a specific customer to view its details
- Function description: As an owner/staff, I want a function to view customer details.
- Screen layout:

The screenshot shows a 'View details of customer' screen for 'Nguyen Trung Kien'. It displays basic information: Ngày Sinh (DOB): 22-08-2023, Giới Tính (Gender): Nam, Số Điện Thoại (Phone): 0346884399, Nhóm Khách Hàng (Customer Group): Khách lẻ. Below this are two panels: 'Thông tin cá nhân' (Personal information) and 'Thông tin mua hàng' (Purchase information). The 'Thông tin cá nhân' panel shows: TỔNG SỐ ĐƠN HÀNG (Total orders): 2, TỔNG SỐ SẢN PHẨM ĐÃ MUA (Total products purchased): 6. The 'Thông tin mua hàng' panel shows: TÌM KIẾM (Search) and a table of purchase details. The table has columns: MÃ ĐƠN HÀNG (Order ID), TRẠNG THÁI (Status), GIÁ TRỊ (Value), and NHÂN VIÊN XỬ LÝ ĐƠN (Staff handling). Two rows are listed: 1 (Đã hoàn thành - Order completed, 1017450 VND, OwerFullName) and 2 (Chờ xác nhận - Pending confirmation, 178600 VND, OwerFullName). Navigation buttons at the bottom include 'Trước' (Previous), 'Tiếp' (Next), and 'Thoát' (Exit).

Figure 3.14.3.1: View details of customer screen

- Function details:

- This function retrieves and displays the detailed information about a specific supplier, such as their name, phone, gender, order of customer, shipping information of customer.

3.14.4 Delete customer shipping information

- Function trigger: Staff wants to delete details of a customer shipping information
- Function description: As a staff, I want to delete details of a customer shipping information details
- Screen layout:

The screenshot shows a web-based application interface for managing customer information. At the top, there's a navigation bar with 'Quản trị' and a breadcrumb path: 'Khách hàng > Chi tiết khách hàng'. Below this, the title 'Khách Hàng: Nguyen Trung Kien' is displayed. The main content area is divided into two main sections: 'Thông tin cá nhân' (Personal Information) and 'Thông tin mua hàng' (Purchase Information). Under 'Thông tin cá nhân', there are fields for 'NGÀY SINH' (22-08-2023), 'GIỚI TÌNH' (Nam), 'SỐ ĐIỆN THOẠI' (0346884399), and 'NHÓM KHÁCH HÀNG' (Khách lẻ). Under 'Thông tin mua hàng', there are fields for 'TỔNG SỐ ĐƠN HÀNG' (2) and 'TỔNG SỐ SẢN PHẨM ĐÃ MUA' (6). Below these sections is a table titled 'Lịch sử mua hàng' (Purchase History) with columns: Số điện thoại, Địa chỉ, Phường xã, Quận huyện, Tỉnh thành phố, and Hành động. It lists two entries: one for 0346884399 with address 'B8, Phường Trúc Bạch, Quận Ba Đình, Thành phố Hà Nội' and another for 0346884399 with address 'HM, Phường Nghĩa Tân, Quận Cầu Giấy, Thành phố Hà Nội'. At the bottom right of the table are buttons for 'Thêm Địa Chỉ Mới' (Add New Address) and 'Tim kiếm' (Search). Navigation buttons 'Trước' (Previous), 'Tiếp' (Next), and 'Thoát' (Exit) are also present. A footer note 'leteShipInfo?shipInfoId=4.' and the text 'vMS 2023 | Developed By: SEP490_G30' are at the bottom.

Figure 3.14.4.1: Delete customer screen

- Function details:
 - This function allows authorised users to delete the details of an existing customer shipping information;
 - Staff can not delete default shipping information of customers.

3.14.5 Edit customer

- Function trigger: Staff wants to edit details of a customer
- Function description: As a(n) staff, I want to edit details of a customer details

- Screen layout:

VMS 2023 | Developed By : SEP490_G30

Figure 3.14.5.1: Edit customer screen

- Function details:

- This function allows authorised users to modify the details of an existing customer, such as their name and contact details, based on the customer ID, which are then validated and updated in the database for future use.
- If supplier editing is missing some fields, the user needs to fill all required fields, information can not be saved.
- User input wrong data types. Users must input accurate data types of fields, for example the phone number must not contain letters.

3.14.6 Create customer shipping information

- Function trigger: Staff wants to create a customer shipping information
- Function description: As a staff, I want to create a customer shipping information details

- Screen layout:

Thêm mới địa chỉ giao hàng

Thông tin khách hàng [Dang giao dich](#)

TÊN KHÁCH HÀNG	: Nguyen Trung Kien
NGÀY SINH	: 8/22/2023 12:00:00 AM
SỐ ĐIỆN THOẠI	: 0346884399
GIỚI TÍNH	: Nam
NHÓM KHÁCH HÀNG	: Khách lẻ

Địa chỉ giao hàng mới

Tên người nhận
Nhập tên

Số điện thoại
Nhập số điện thoại

Tỉnh/Thành Phố
Chọn Tỉnh/Thành Phố

Quận/Huyện
Chọn Quận/Huyện

Phường/Xã
Chọn Phường/Xã

Địa chỉ chi tiết
Nhập địa chỉ chi tiết

[Thêm Mới](#) [Quay Lại](#)

Figure 3.14.6.1: Create customer shipping information screen

- Function details:

- This function allows authorised users to create the shipping information details of an existing customer, such as their name and contact details, based on the customer ID, which are then validated and updated in the database for future use.
- If new shipping information is missing some fields, the user needs to fill all required fields, information can not be saved.

3.14.7 Edit customer shipping information

- Function trigger: Staff wants to edit details of a customer shipping information
- Function description: As a(n) staff, I want to edit details of a customer shipping information details
- Screen layout:

Figure 3.14.7.1: Edit customer shipping information screen

- Function details:
 - This function allows authorised users to modify the details of an existing customer shipping information, such as shipping name and contact details, based on the customer ID, which are then validated and updated in the database for future use.
 - If editing information is missing some fields, the user needs to fill all required fields, information can not be saved.
 - Users must input accurate data types of fields, for example the phone number must not contain letters.

3.15 Dashboard

3.15.1 View dashboard

- Function trigger: The owner/staff visits their dashboard of the website
- Function description: As the owner/staff, I want to view inventory information, total revenue, by date, orders.
- Screen layout:

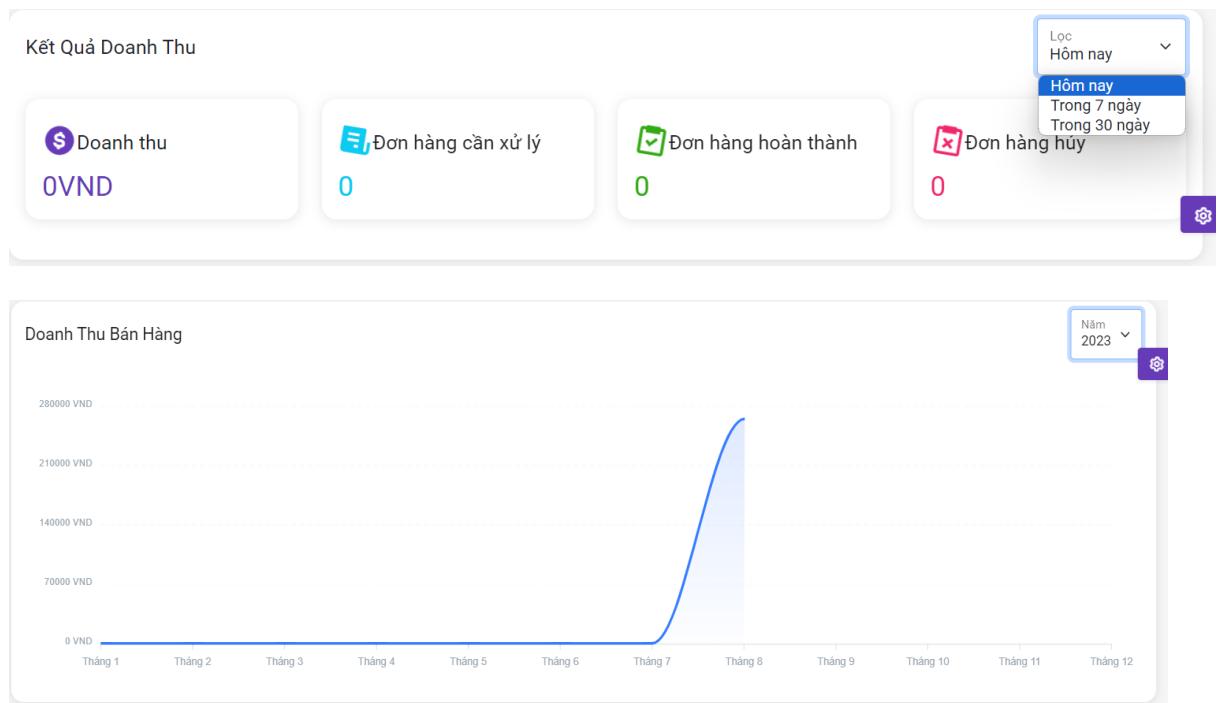


Figure 3.15.1.1: View dashboard screen

- Function details:
 - The owner/staff can see the total product in the system. The staff can view the information of their own order and their own revenue. The owner can see total staff members in the system, and view the total revenue of staff. The revenue result via period by choosing period from drop down list. Sales revenue by year chart can be filtered by year.

4. Non-Functional Requirements

4.1 External Interfaces

4.1.1 User Interfaces

- *UI-1: The websites will have a user-friendly interface and are easy to use.*
- *UI-2: The layout of the screen is streamlined, easy to operate, and implement for the user.*
- *UI-3: Buttons have distinctive features and colours but are in sync with the interface.*
- *UI-4: When the user is on a screen or function, the position of that function displayed on the sidebar will be bright and synchronised with the interface.*
- *UI-5: Notifications displayed on the screen have a friendly banner outlining the content for the user.*
- *UI-6: The screen displays shall conform to the Process Impact Internet Application User Interface Standard, Web 2.0*
- *UI-7: System will support most web browsers with responsive design.*

4.2 Quality attributes

4.2.1 Usability

- *US-1: The languages are Vietnamese*
- *US-2: Menu sidebar will have main functions for easier access.*
- *US-3: Buttons and checkboxes are easily clickable.*
- *US-4: Links are easily recognizable and clickable.*
- *US-5: The user interface of the solution should be elegant, easy to navigate, and user-friendly*
- *US-6: All the titles or names of functions should be easy to understand and reflect the purpose of the function.*
- *US-7: All error message should be clear for all users*
- *US-8: User should be able to learn to use the specified functions in no time*
- *Main functions are organised into tabs for easier access.*

4.2.1 Reliability

- *RE-01: Before being sent to the server, every information submitted by the user is verified.*
- *RE-02: The system complies with business rules.*

4.2.2 Security

- *All password stored is encrypted*
- *The system must use HTTPS to encrypt the information transferred between clients and servers.*
- *Authentication and Authorization in ASP.NET MVC Application with ASP.NET Identity*

5. Requirement Appendix

5.1 Business Rules

ID	Rule Definition
BR-01	Required fields with '*' cannot be empty.
BR-02	Phones must be the 10 numbers

BR-03	The password must be at least 6 characters with letters and numbers, contain 1 capitalised letter, must contain 1 special character
BR-04	Passwords will be displayed as “*” characters instead of digits/letters.
BR-05	Each employee contains a different ID.
BR-06	The phone number cannot be duplicated.
BR-07	The email address cannot be duplicated.
BR-08	The currency used will be VND.
BR-09	When the export price is less than the import price, a warning will be displayed.
BR-10	The date select must be less than or equal current time
BR-11	The number cannot be negative, if it is negative, the number is 0.

5.2 Common Requirements

- The confirmation popup is used for the confirm and cancel actions.

5.3 Application Messages List

#	Message code	Message Type	Context	Content
1	MSG01	In line	The Email field is required	<i>Email can not be empty</i>
2	MSG02	In red, under the text box	Input-required fields are empty	<i>The * field is required.</i>
3	MSG03	Toast message	Updating asset(s) information successfully	<i>Update asset(s) successfully.</i>
4	MSG04	Toast message	Adding new asset successfully	<i>Add asset(s) successfully.</i>
5	MSG05	Toast message	Confirming email of asset hand-over is sent successfully	<i>A confirmation email has been sent to {email_address}.</i>
6	MSG06	Toast message	Resetting asset information successfully	<i>Return asset(s) successfully.</i>
7	MSG07	Toast message	Deleting asset information successfully	<i>Delete asset(s) successfully.</i>
8	MSG08	In red, under the text box	Input value length > max length	<i>Exceed max length of {max_length}.</i>
9	MSG09	In line	Username or password is not correct when clicking sign-in	<i>Incorrect username or password. Please check again.</i>