REVIEW 2

Contents

Prepared by: All Members	Approved by: Mr. Ngo Phuoc Nguyen
Project Group No: 1	

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I.   Use Case and Sequence Diagram:

1. Guests:
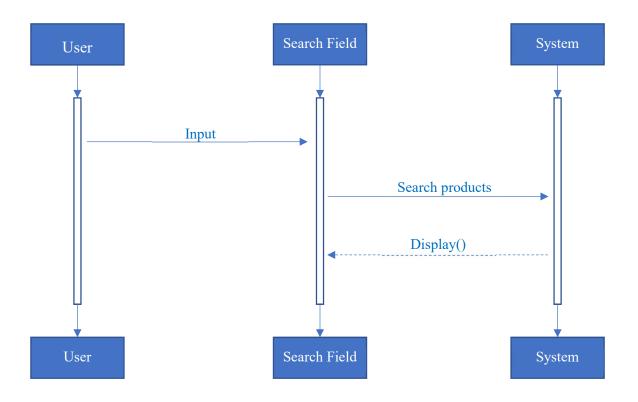
a. Search
a.1. Auto complete:

Author	Nguyen Ngoc Thang	
Use Case Name	Search – Auto complete	
Actors	Guests and Members	
Description	Display products which have names contain string in search field	
Requirements	Search result appear in a panel right below the search field, which contains name and products' image	
Pre-conditions		
Post-conditions		
	Actor Actions	**System Responses**
Basic flow	1. Typing in search field	2. Create an empty list to contain search result. 3. Search in Products table to find products which have names contain the search string (ignore case) and add them to result list. 4. Display the result list in a panel right below the search field.
Alternative flow		
Exception		

a.2. Search button:

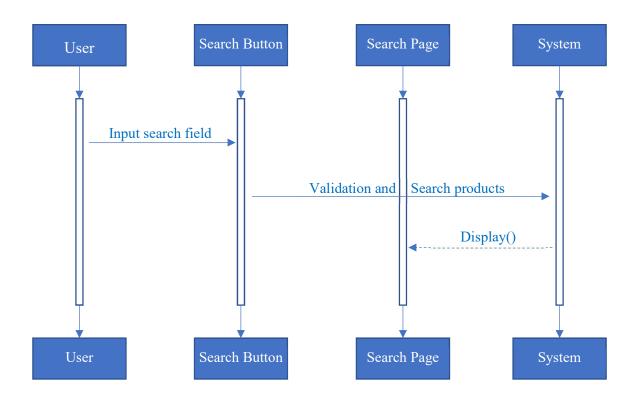| Author	Nguyen Ngoc Thang	
Use Case Name	Search – Search button	
Actors	Guests and Members	
Description	When search button is clicked, search result page will be displayed with result list of products and their information.	
Requirements	Search string can not be blank.	
	Actor Actions	**System Responses**
Basic flow	1. Actor input search string and click on search button.	2. System check the search string [Exception 1] 3. System create an empty list to contain search result. 4. Search in Products table to find products which have names contain the search string (ignore case) and add them to result list. 4. Display the result list in the search result page.
Exception	1. Actor left the search string empty	1. An error message will be display: "Search string can not be empty"
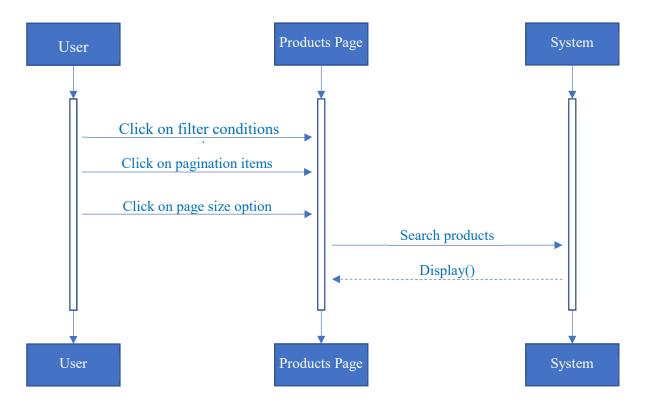
b. Filter

Author	Nguyen Ngoc Thang
Use Case Name	Filter
Actors	Guests and Members
Description	Allows customers view all products which are in the same categories, types, brands or have prices in special range. Products will be displayed with the pagination.
Requirements	Links of Brands, Categories, Types must be clicked, or range of prices must be chosen.

	Actor Actions	System Responses
Basic flow	1. Clicks on links of Brands, Categories, Types, or select range of prices.	2. Receive parameters passing with the links and search products which have Brands or Categories or Types or Prices satisfied with the parameters. 3. Display the list in the products page.
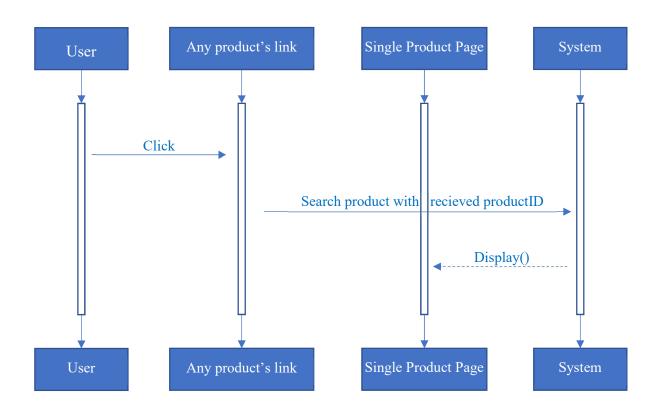
c. View product details

Author	Nguyen Ngoc Thang	
Use Case Name	View product details	
Actors	Guests and Members	
Description	When customers click on any products' link, a page will display to show all products' information.	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on products' links	2. Receive parameters passing with the links and search products which have productID satisfied with the parameters. 3. Display the details in the singleProduct page.
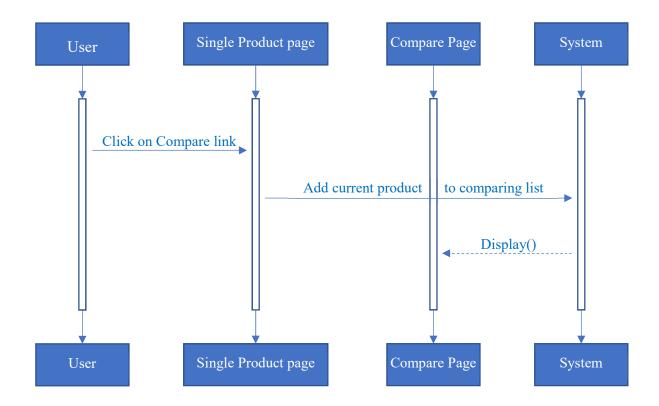
d. Compare
d.1. Add:

Author	Le Huu Bay
Use Case Name	Compare - Add
Actors	Guests and Members
Description	When a customer clicks on "Compare" link in singleProduct page, compare page will appear to display all compared products include added products.

Basic flow	Actor Actions	System Responses
	1. Clicks on "Compare" link in singleProduct page.	2. Check the number of compared products: + if it equals 5, system disable the compare link and display a text "Reach the limit of 5 compared products". + else, system add the product to compared products and display compare page.
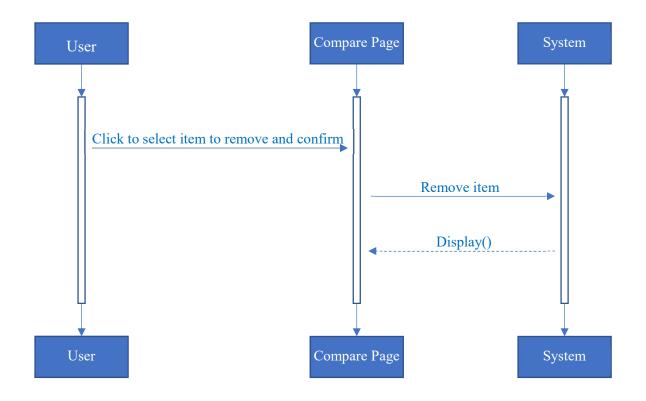
d.2. Remove:

Author	Nguyen Ngoc Thang	
Use Case Name	Compare - Remove	
Actors	Guests and Members	
Description	When customer clicks on remove links and choose "Yes" to confirm, the selected product will be remove from the compared list.	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on remove link of compared product in the compare page. 3. Clicks on "Yes" to confirm.	2. Display 2 buttons: "Yes" and "No" for customer confirm the removing. 4. Remove selected product from the compared list and display compare page with updated list.
Alternative flow	5. Clicks on "No".	6. The 2 buttons disappear.
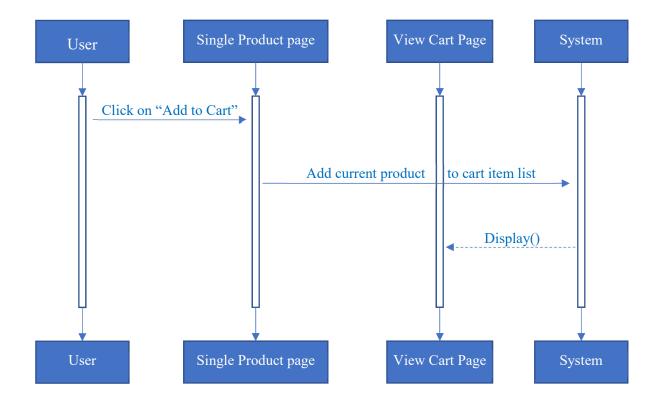
e. Cart
e.1. Add:

Author	Nguyen Ngoc Thang
Use Case Name	Cart – Add
Actors	Guests and Members
Description	When customers select the quantity and clicks on "Add to Cart" in singleProduct page, the current product will be added/updated into list of cart items, and cart page will be displayed with all cart items.

	Actor Actions	System Responses
Basic flow	1. Selects the quantity and clicks on "Add to Cart".	2. Check the added product: + If existed in cart, system will add the quantity to the existed item's quantity. + Else, system will add the product with the selected quantity into the list of cart items. 3. Display the cart page with all updated cart items.
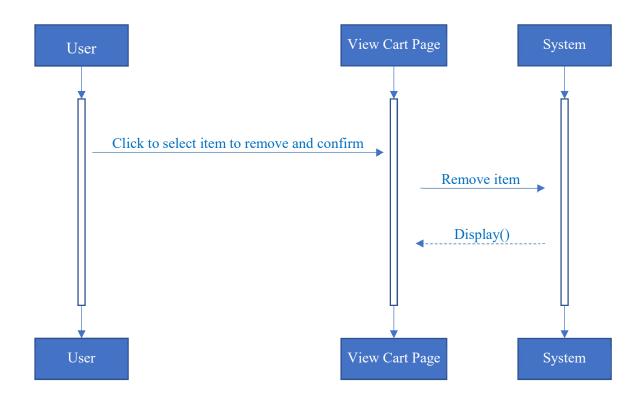
e.2. Remove

| Author	Nguyen Ngoc Thang	
Use Case Name	Cart – Remove	
Actors	Guests and Members	
Description	When customers clicks on remove links and choose "Yes" to confirm, the selected product will be remove from the list of cart items.	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on remove link of cart items in the cart page. 3. Clicks on "Yes" to confirm.	2. Display 2 buttons: "Yes" and "No" for customer confirm the removing. 4. Remove selected product from the list of cart items and display cart page with updated list.
Alternative flow	5. Clicks on "No".	6. The 2 buttons disappear.
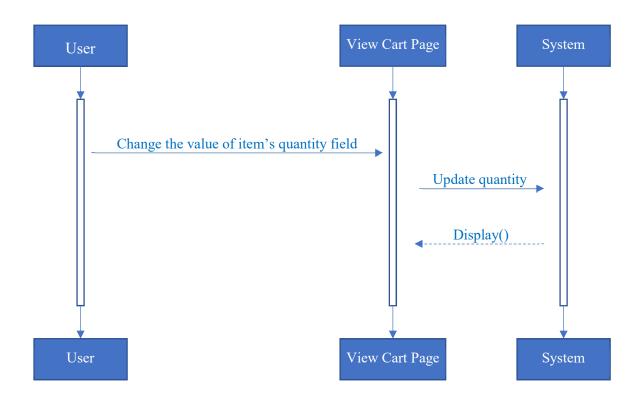
User ──── Click to select item to remove and confirm ────▶ View Cart Page ──── Remove item ────▶ System

System ┈┈┈ Display() ┈┈▶ View Cart Page

e.3. Update quantity:

Author	Nguyen Ngoc Thang	
Use Case Name	Cart – Update quantity	
Actors	Guests and Members	
Description	When customers input quantity field of cart item, system will update the quantity, subtotal, total and display cart page with new information	
Requirements	Quantity must be greater than 0.	
	Actor Actions	**System Responses**
Basic flow	1. Updates new number in the quantity field.	2. Check the new quantity [Exception 1] 3. Update new quantity, subtotal and total of cart items. 4. Display cart page with new information.
Exception	[Exception 1] 1. Actor input a number less than 0. 2. Actor input a string not in number format	- Display error message "Quantity must be greater than 0". - Display error message "Quantity is not in number format".

User → View Cart Page: Change the value of item's quantity field

View Cart Page → System: Update quantity

System ⇢ View Cart Page: Display()
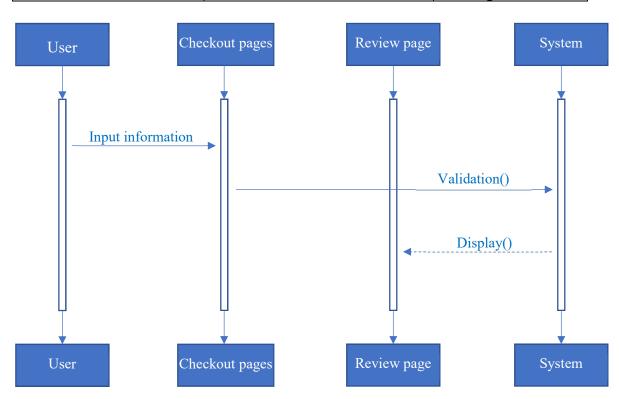
f. Check out
f.1. Input information

Author	Le Huu Bay
Use Case Name	Checkout – Input information
Actors	Guests and Members
Description	Display field for customers to input information about shipping and payment method.
Pre-conditions	List of cart items can not be null.

	Actor Actions	**System Responses**
Basic flow	1. Customers input shipping information (* character means that is a required field)	2. System display input filed for Shipping information: + Receiver's name * + Address * + Phone * + Shipping date * + Note
	3. Clicks on Continue button to input Payment method	4. System check the input information [Exception 1] 5. Display 3 payment methods: + Cash on delivery (default) + Payment by bank transfer (with bank account info) + Payment by Credit Card with input fields for card info (all is required): Number, CCV/CVV, Name, Expiration date.
	6. Clicks on Continue button to review order	7. System check the input information [Exception 2] 8. Display review page with all information about the order.
Exception	[Exception 1] 1. Actor left Receiver's name blank. 2. Actor left Address blank. 3. Actor left Phone blank. 4. Actor left Shipping date blank. 5. Actor input Shipping date which was not greater than current date + 3 days. [Exception 2] If actor choose to pay by Credit card: 6. Actor left the Number blank. 7. Actor left the CVV/CCV blank. 8. Actor left the Name blank. 9. Actor left the Expiration date blank	Display error message: - "Receiver's name can not be blank" - "Address can not be blank" - "Phone can not be blank" - "Shipping date can not be blank" - "Shipping Date must be at least 3 days from today" - "Number can not be blank" - "CVV/CCV can not be blank" - "Name can not be blank" - "Expiration date can not be blank"
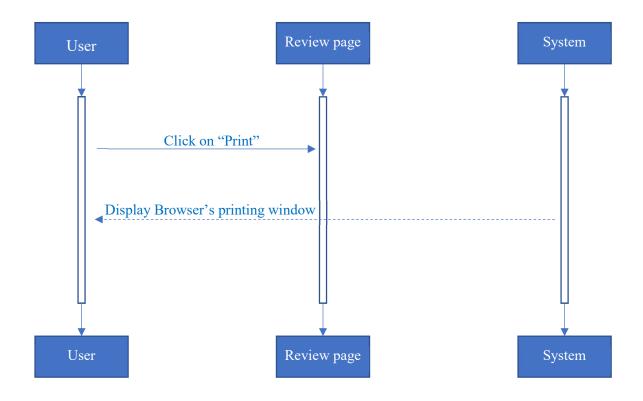
f.2. Print order:

Author	Le Huu Bay	
Use Case Name	Checkout – Print order	
Actors	Guests and Members	
Description	Allow customers to print all information about the order	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Print button	2. Display the Browser's printing window which allow to print page via a printer or to a pdf file. 3. After printing, display the current review page.
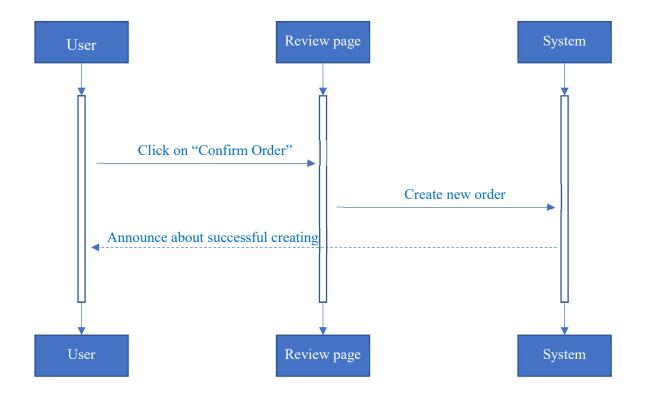
f.3. Confirm order:

Author	Le Huu Bay	
Use Case Name	Checkout – Confirm order	
Actors	Guests and Members	
Description	Customers click on Confirm Order button to make the order, if success, an announcement will be displayed.	
	Actor Actions	**System Responses**
Basic flow	1. Clicks Confirm Order button	2. Create new data in Orders and Orders Details tables. 3. Display an announcement to inform about the successful order.

User   Review page   System

Click on "Confirm Order"

Create new order

Announce about successful creating

User   Review page   System

g. Sign up

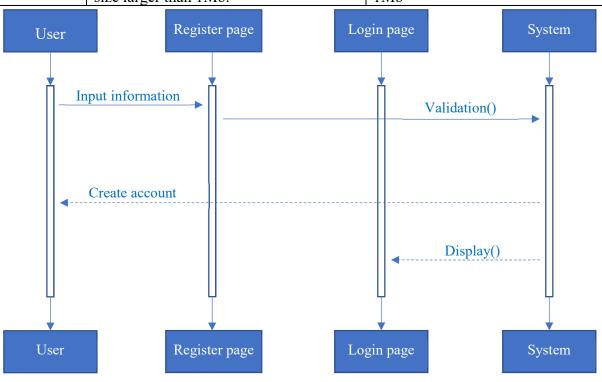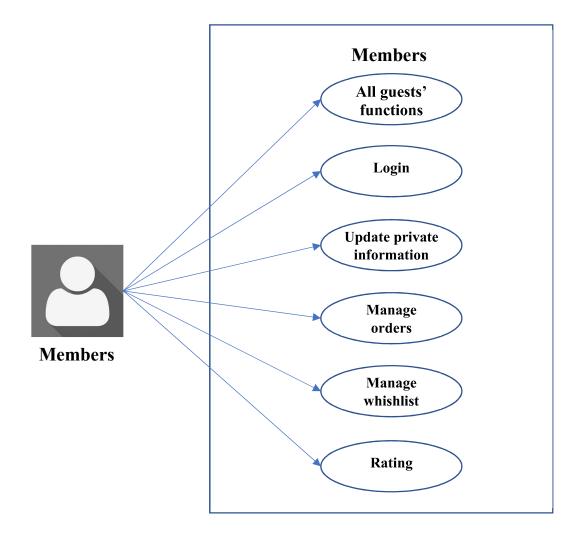| Author	Nguyen Thanh Hau	
Use Case Name	Sign up	
Actors	Guests	
Description	Guest wants to sign up with the website to become a member.	
	Actor Actions	**System Responses**
Basic flow	1. Input information, select avatar and clicks on Submit button	2. Check the information [Exception 1] 3. Create customer account 4. Display login page.
Exception	[Exception 1] 1. Actor left First Name blank 2. Actor left Last Name blank 3. Actor left Phone Number blank 4. Actor left Gender blank 5. Actor left Email blank 6. Email is in wrong format. 7. Password length is less than 3. 8. Confirm Password does not match with Password 9. Actor select a non-image file for Avatar 10. Actor select an image file which has size larger than 1Mb.	Display error message: 1. "First Name can not be blank" 2. "Last Name can not be blank" 3. "Phone Number can not be blank" 4. "Gender can not be blank" 5. "Email can not be blank" 6. "Email is in wrong format" 7. "Password length must be greater than 3" 8. "Confirm Password does not match with Password" 9. "Selected file is not an image file" 10. "Image file's size is larger than 1Mb"

2. Members:
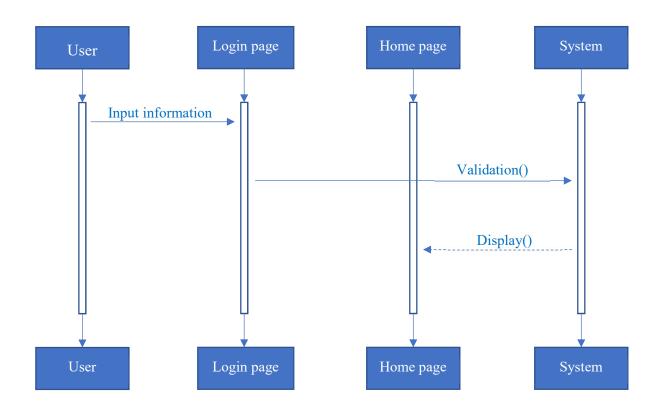
a. Login

Author	Nguyen Thanh Hau	
Use Case Name	Login	
Actors	Members	
Description	Customers log in with their registered email and password.	
	Actor Actions	**System Responses**
Basic flow	1. Input email and password and clicks on Submit button	2. System check email and password [Exception 1] 3. System tracks the user's information and display Home page
Exception	[Exception 1] 1. Actor left the Email blank 2. Actor left the Password blank 3. Actor inputs wrong email or password	Display error message: - "Email can not be blank" - "Password can not be blank" - "Wrong email or Password"
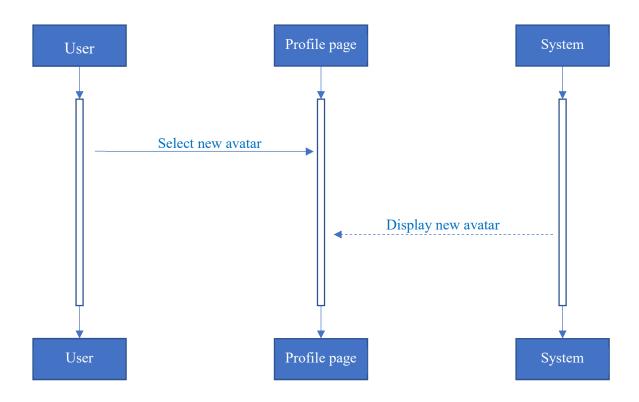
b. Update private information
b.1. Change avatar:

Author	Nguyen Thanh Hau	
Use Case Name	Update private information – Change avatar	
Actors	Members	
Description	Customers click select new image file to change their avatars	
Requirements	Login as member	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Change Avatar button and select new image file	2. Display the avatar replaced with new image [Exception 1]
Exception	[Exception 1] 1. Actor select a non-image file for Avatar 2. Actor select an image file which has size larger than 1Mb.	Display error message: 1. "Selected file is not an image file" 2. "Image file's size is larger than 1Mb"

```
   User              Profile page              System

    |                     |                       |
    |                     |                       |
    |  Select new avatar  |                       |
    |-------------------->|                       |
    |                     |                       |
    |                     |   Display new avatar  |
    |                     |<- - - - - - - - - - - |
    |                     |                       |
   User              Profile page              System
```

b.2. Update information:

Author	Nguyen Thanh Hau	
Use Case Name	Update information	
Actors	Members	
Description	Customers want to change their private information	
Requirements	Login as member	
	Actor Actions	**System Responses**
Basic flow	1. Actors change Avatar, First Name, Last Name, Phone, Gender.	2. System check information [Exception 1] 3. Update new information to data in Customers table.
Exception	[Exception 1] 1. Actor left First Name blank 2. Actor left Last Name blank 3. Actor left Phone Number blank 4. Actor left Gender blank	Display error message: 1. "First Name can not be blank" 2. "Last Name can not be blank" 3. "Phone Number can not be blank" 4. "Gender can not be blank"

b.3. Change password:
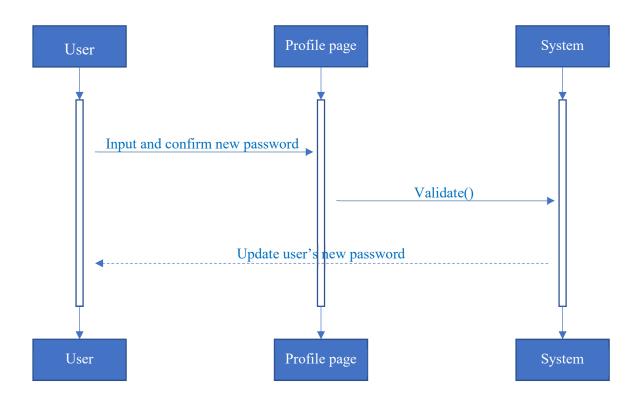
Author	Nguyen Thanh Hau	
Use Case Name	Update information – Change password	
Actors	Members	
Description	Customer want to change the registered password	
Requirements	Login as members	
	Actor Actions	**System Responses**
Basic flow	1. Input Old Password, New Password and Confirm Password	2. Check information [Exception 1] 3. Update New Password into Customers table
Exception	[Exception 1] 1. Old Password is wrong. 2. New Password length is less than 3 3. Confirm Password does not match with New Password	Display error message: - "Old Password is wrong" - "New Password length is less than 3" - "Confirm Password does not match with New Password"
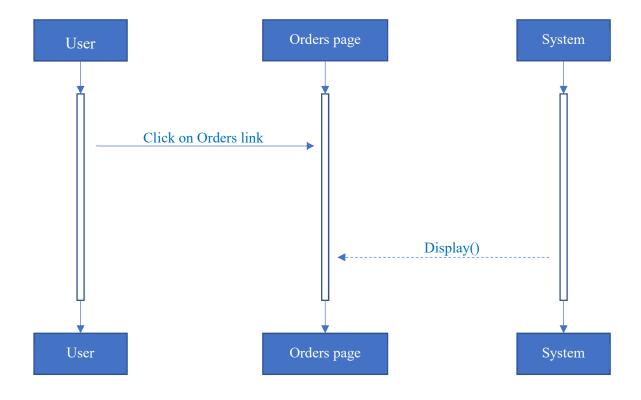
c. Manage orders
c.1. View all orders:

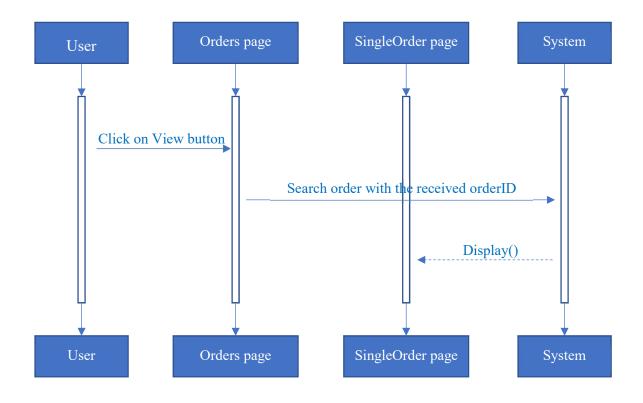| Author	Le Huu Bay	
Use Case Name	Search – Search button	
Actors	Members	
Description	Customers can view all orders they made	
Requirements	Login as member	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Orders page link	2. System search all Orders and Orders Details which satisfy the current customerID and display in Orders page.

User

Orders page

System

Click on Orders link

Display()

User

Orders page

System

c.2. View order details:

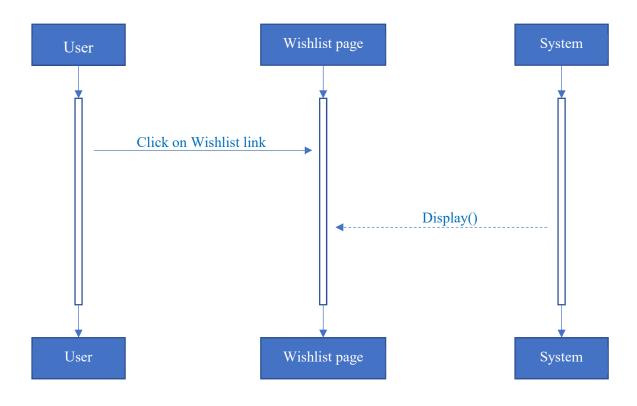| Author	Le Huu Bay	
Use Case Name	Search – Search button	
Actors	Members	
Description	Customers can click on every order to view its details	
Requirements	Login as member	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on View button on Orders page	2. Search data in Orders Details table which satisfy with selected orderID. 3. Display all searched data in SingleOrder page.

User → Orders page: Click on View button

Orders page → System: Search order with the received orderID

System ⇢ SingleOrder page: Display()

d. Manage wishlist
d.1. View all wishlist items:

| Author	Nguyen Thanh Hau	
Use Case Name	Manage wishlist – view all wishlist items	
Actors	Members	
Description	Customers can review their wishlist	
Requirements	Login as member	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Wishlist link	2. Search all data in Wishlist table which satisfy with current customerEmail. 3. Display searched data in Wishlist page.
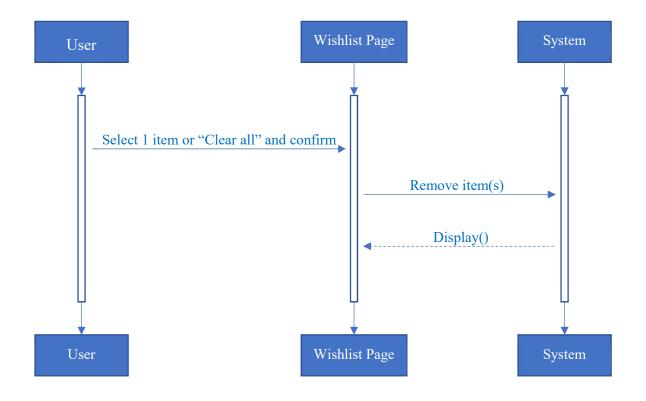
d.2. Remove wishlist items

Author	Nguyen Thanh Hau		
Use Case Name	Manage wishlist – remove wishlist items		
Actors	Members		
Description	Customers can remove items in their wishlists		
Requirements	Login as member		
	Actor Actions		**System Responses**
Basic flow	1. Clicks on Remove/Clear All button 3. Clicks on "Yes" to confirm removing 5. Clicks on "No" to cancel removing		2. Display 2 buttons: "Yes" and "No" 4. Remove chosen item(s) from wishlist and data in Wishlist table. 6. Hide the 2 buttons.
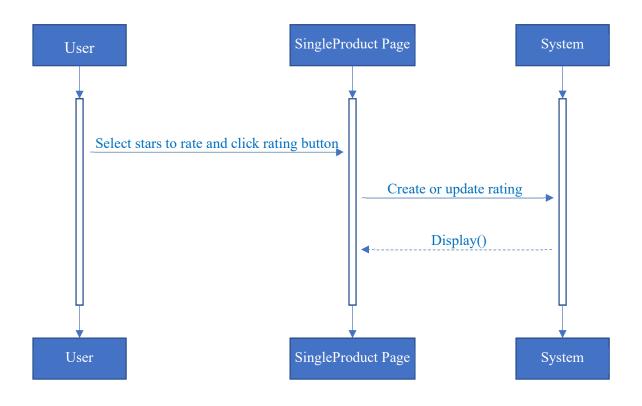
e. Rating

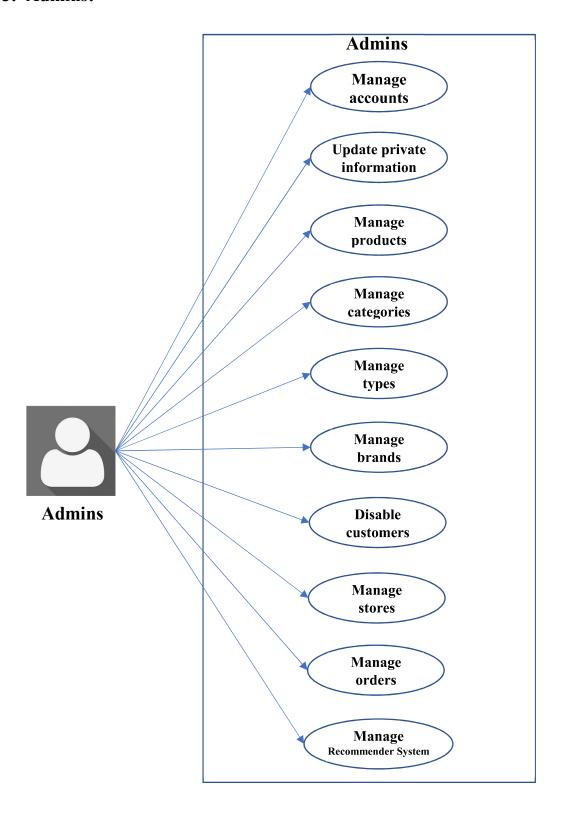| Author	Nguyen Ngoc Thang	
Use Case Name	Rating	
Actors	Members	
Description	Customers want to rate for products (from 1 to 5 stars), if rated, they can view their ratings and can update ratings.	
Requirements	Login as member	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on stars (include 5 stars) to rate for products and clicks on Submit/Update button	2. System search in Ratings table to find record contains current productID: + if found, update the value of current rating to new rating. + else, create new record with the current productID and rating values 3. Display SingleProduct Page

User   SingleProduct Page   System

Select stars to rate and click rating button

Create or update rating

Display()

3. Admins:
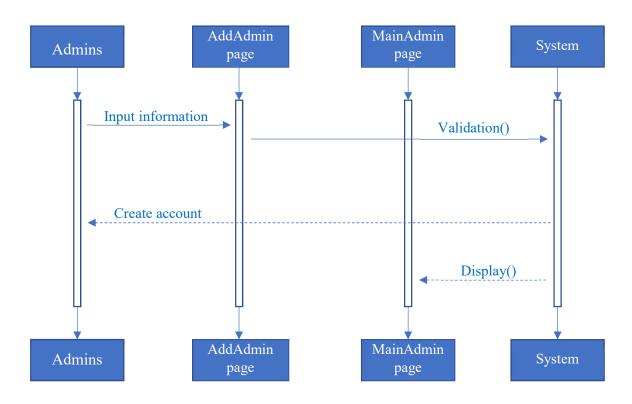
a. Manage admin accounts
a.1. Add

Author	Nguyen Thanh Hau	
Use Case Name	Manage admin account - Add	
Actors	Admins	
Description	Admins with Manager role can add new admin accounts for new store's staffs	
Requirements	Login as admins with Manager role	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Email, Full Name, Admin Role, and choose an avatar. Then clicks on Create button.	2. System check the information [Exception 1] 3. Create admin account 4. Display MainAdmin page.
Exception	[Exception 1] 1. Actor left Full Name blank 2. Actor left Email blank 3. Email is in wrong format.	Display error message: - "Full Name can not be blank" - "Email can not be blank" - "Email is in wrong format"
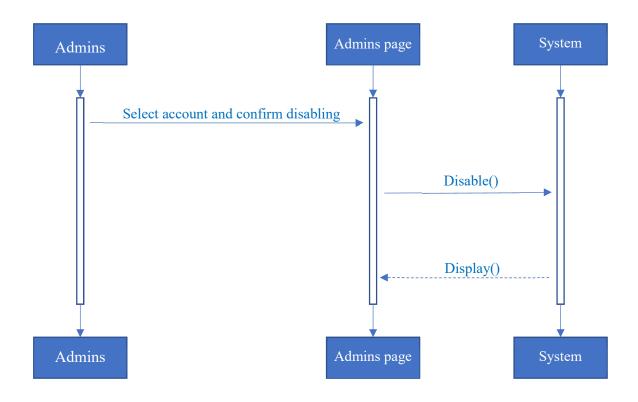
a.2. Disable account

Author	Nguyen Thanh Hau	
Use Case Name	Manage admin account – Disable account	
Actors	Admins	
Description	Admins can disable admin accounts in cases such as employees quit job.	
Requirements	Login as admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Disable button 3. Clicks on "Yes" to confirm disabling 5. Clicks on "No" to cancel disabling	2. Display 2 buttons: "Yes" and "No" 4. Change status value of chosen account to from Admins table. 6. Hide the 2 buttons. 7. Display Admins page
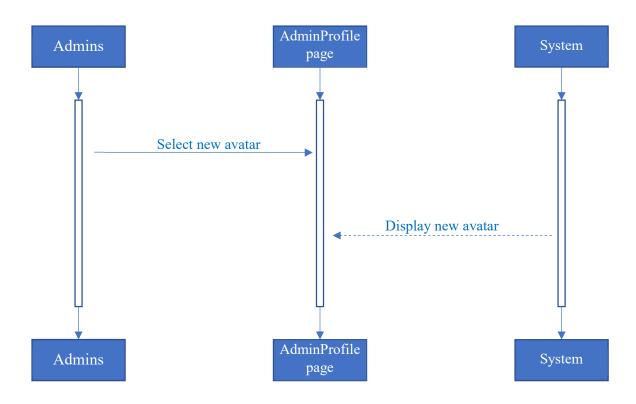
b. Update account information
b.1. Change avatar

Author	Nguyen Thanh Hau	
Use Case Name	Update information – Change avatar	
Actors	Admins	
Description	Admins click select new image file to change their avatars	
Requirements	Login as admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Change Avatar button and select new image file	2. Display the avatar replaced with new image [Exception 1]
Exception	[Exception 1] 1. Actor select a non-image file for Avatar 2. Actor select an image file which has size larger than 1Mb.	Display error message: 1. "Selected file is not an image file" 2. "Image file's size is larger than 1Mb"

b.2. Update information

Author	Nguyen Thanh Hau	
Use Case Name	Update information	
Actors	Admins	
Description	Admins want to change their private information	
Requirements	Login as admin	
	Actor Actions	**System Responses**
Basic flow	1. Actors change Avatar, Full Name, if login as Manager role, admins can change Admin Role.	2. System check information [Exception 1] 3. Update new information to data in Admins table.
Exception	[Exception 1] 1. Actor left Full Name blank	Display error message: 1. "Full Name can not be blank"
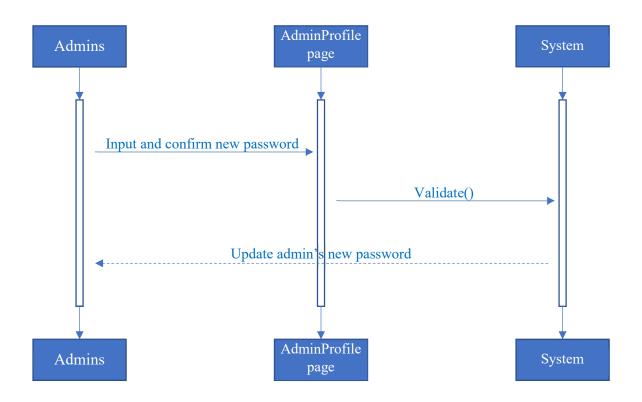
b.3. Change password

Author	Nguyen Thanh Hau	
Use Case Name	Update information – Change password	
Actors	Admins	
Description	Admins want to change the registered password	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input Old Password, New Password and Confirm Password	2. Check information [Exception 1] 3. Update New Password into Admins table
Exception	[Exception 1] 1. Old Password is wrong. 2. New Password length is less than 3 3. Confirm Password does not match with New Password	Display error message: - "Old Password is wrong" - "New Password length is less than 3" - "Confirm Password does not match with New Password"
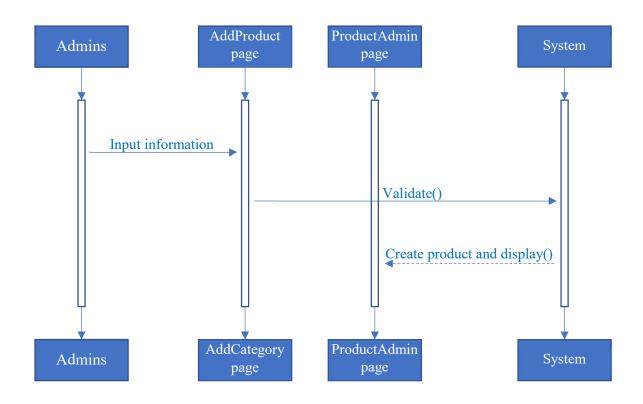
c. Manage products
c.1. Insert

Author	Le Huu Bay	
Use Case Name	Manage Products – Insert	
Actors	Admins	
Description	Admins want to insert new products	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Product Name, Price, Category, Type, Brand, 4 Images, Description and features. Then clicks on Insert button.	2. System check the information [Exception 1] 3. Create new product in database 4. Display ProductAdmin page.
Exception	[Exception 1] 1. Actor left Product Name blank 2. Actor left Price blank 3. Actor left Description blank	Display error message: - "Product Name can not be blank" - "Price can not be blank" - "Description can not be blank"
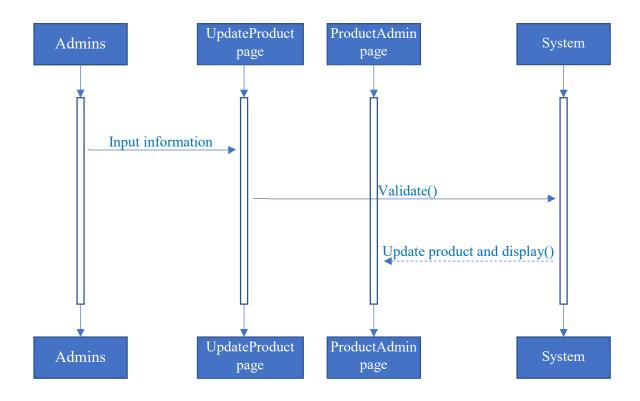
c.2. Update

Author	Le Huu Bay	
Use Case Name	Manage Products – Update	
Actors	Admins	
Description	Admins want to update existed products' information	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Product Name, Price, Category, Type, Brand, 4 Images, Description and features. Then clicks on Update button.	2. System check the information [Exception 1] 3. Update information in database 4. Display ProductAdmin page.
Exception	[Exception 1] 1. Actor left Product Name blank 2. Actor left Price blank 3. Actor left Description blank	Display error message: - "Product Name can not be blank" - "Price can not be blank" - "Description can not be blank"
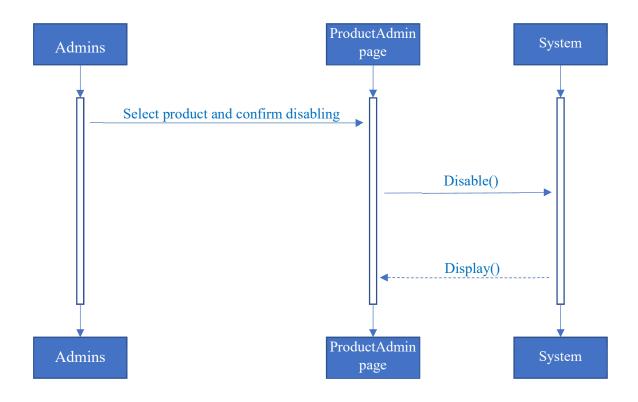
c.3. Disable

Author	Le Huu Bay	
Use Case Name	Manage Products – Disable	
Actors	Admins	
Description	Admins want to disable existed products	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Disable button 3. Clicks on "Yes" to confirm disabling 5. Clicks on "No" to cancel disabling	2. Display 2 buttons: "Yes" and "No" 4. Change status value of chosen product to from Products table. 6. Hide the 2 buttons. 7. Display ProductAdmin page
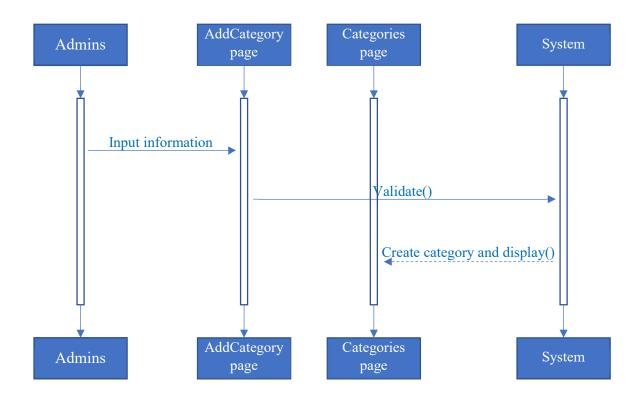
d. Manage categories
d.1. Insert

Author	Le Huu Bay	
Use Case Name	Manage Categories – Insert	
Actors	Admins	
Description	Admins want to insert new categories	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Category Name and Image. Then clicks on Insert button.	2. System check the information [Exception 1] 3. Create new category in database 4. Display Categories page.
Exception	[Exception 1] 1. Actor left Category Name blank	Display error message: - "Category Name can not be blank"
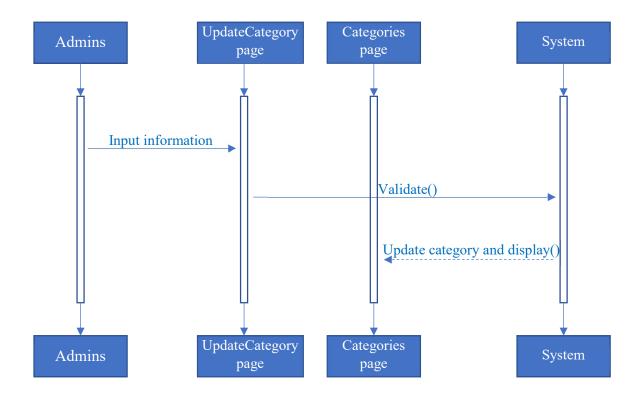
d.2. Update

Author	Le Huu Bay	
Use Case Name	Manage Categories – Update	
Actors	Admins	
Description	Admins want to update existed categories' information	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Category Name and Image. Then clicks on Update button.	2. System check the information [Exception 1] 3. Update existed category in database 4. Display Categories page.
Exception	[Exception 1] 1. Actor left Category Name blank	Display error message: - "Category Name can not be blank"
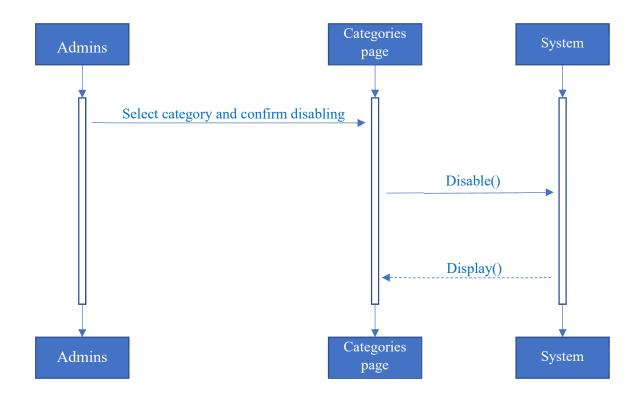
d.3. Disable

Author	Le Huu Bay	
Use Case Name	Manage Categories – Disable	
Actors	Admins	
Description	Admins want to disable existed categories	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Disable button 3. Clicks on "Yes" to confirm disabling 5. Clicks on "No" to cancel disabling	2. Display 2 buttons: "Yes" and "No" 4. Change status value of chosen product to from Categories table. 6. Hide the 2 buttons. 7. Display Categories page

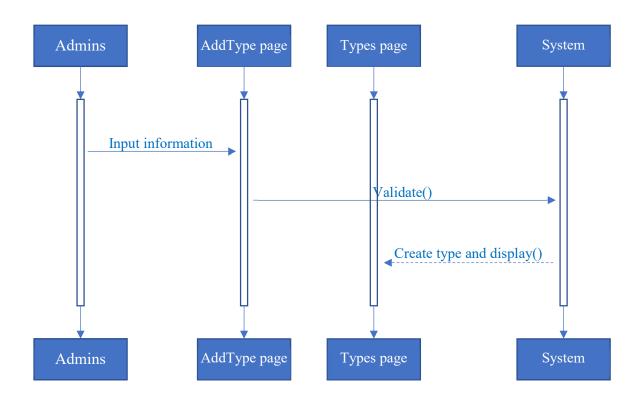Admins → Categories page: Select category and confirm disabling

Categories page → System: Disable()

System ⇠ Categories page: Display()

e. Manage types
e.1. Insert

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Types – Insert	
Actors	Admins	
Description	Admins want to insert new Types	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Type Name and Description. Then clicks on Insert button.	2. System check the information [Exception 1] 3. Create new type in database 4. Display Types page.
Exception	[Exception 1] 1. Actor left Type Name blank	Display error message: - "Type Name can not be blank"
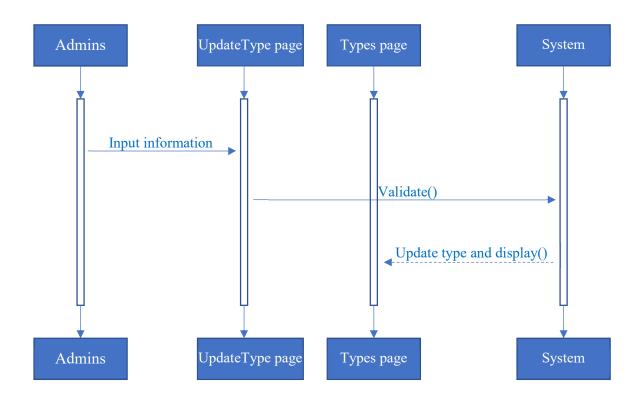
e.2. Update

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Types – Update	
Actors	Admins	
Description	Admins want to update existed types' information	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Type Name and Description. Then clicks on Update button.	2. System check the information [Exception 1] 3. Update existed type in database 4. Display Types page.
Exception	[Exception 1] 1. Actor left Type Name blank	Display error message: - "Type Name can not be blank"
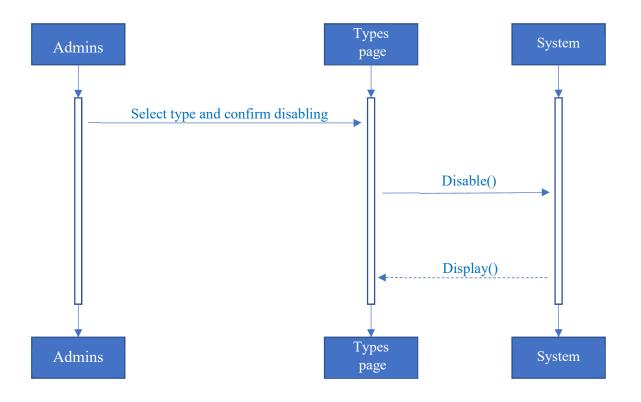
e.3. Disable

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Types – Disable	
Actors	Admins	
Description	Admins want to disable existed types	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Disable button 3. Clicks on "Yes" to confirm disabling 5. Clicks on "No" to cancel disabling	2. Display 2 buttons: "Yes" and "No" 4. Change status value of chosen product to from Types table. 6. Hide the 2 buttons. 7. Display Types page
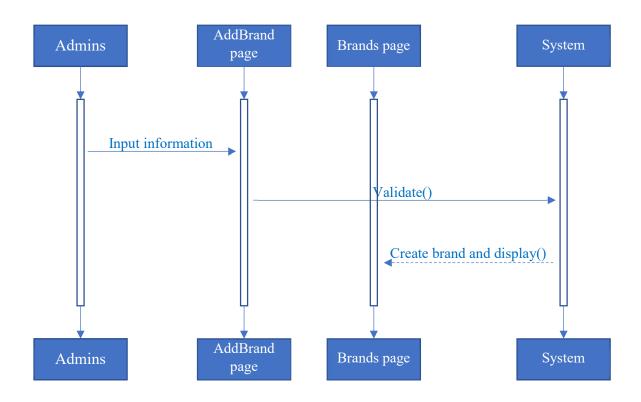
f. Manage brands
f.1. Insert

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Brands – Insert	
Actors	Admins	
Description	Admins want to insert new Brands	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Brand Name, Image and Description. Then clicks on Insert button.	2. System check the information [Exception 1] 3. Create new brand in database 4. Display Brands page.
Exception	[Exception 1] 1. Actor left Brand Name blank	Display error message: - "Brand Name can not be blank"
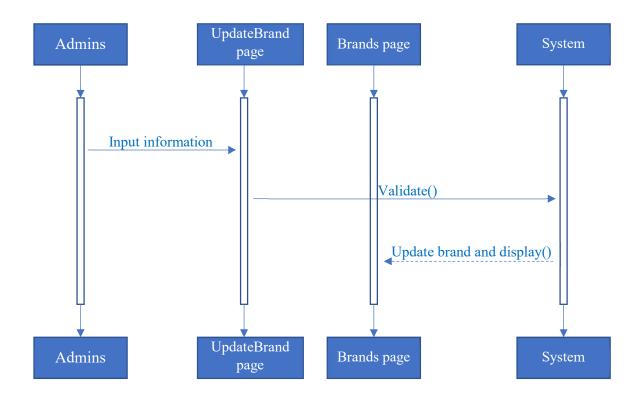
f.2. Update

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Brands – Update	
Actors	Admins	
Description	Admins want to update existed brands' information	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Brand Name, Image and Description. Then clicks on Update button.	2. System check the information [Exception 1] 3. Update existed brand in database 4. Display Brands page.
Exception	[Exception 1] 1. Actor left Brand Name blank	Display error message: - "Brand Name can not be blank"
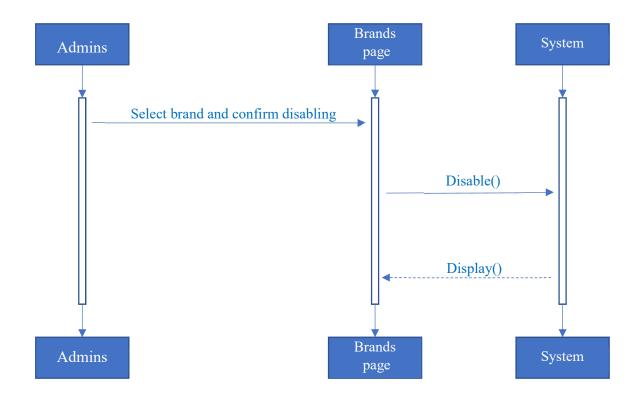
f.3. Disable

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Brands – Disable	
Actors	Admins	
Description	Admins want to disable existed brands	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Disable button 3. Clicks on "Yes" to confirm disabling 5. Clicks on "No" to cancel disabling	2. Display 2 buttons: "Yes" and "No" 4. Change status value of chosen product to from Brands table. 6. Hide the 2 buttons. 7. Display Brands page
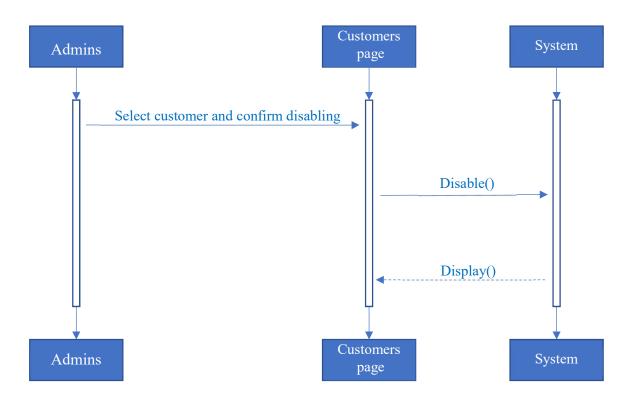
g. Disable customers

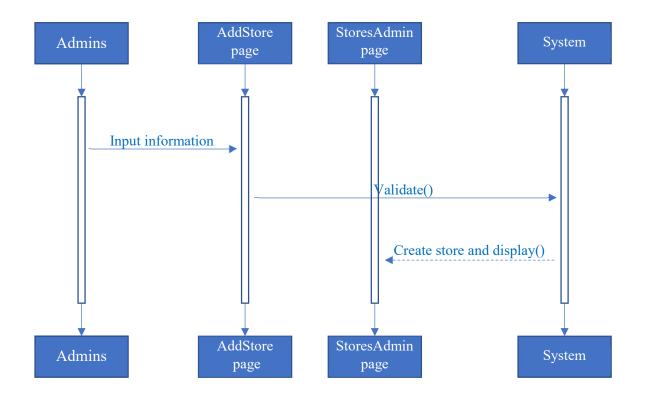| Author	Nguyen Thanh Hau	
Use Case Name	Disable Customers	
Actors	Admins	
Description	Admins want to disable existed customers	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Disable button 3. Clicks on "Yes" to confirm disabling 5. Clicks on "No" to cancel disabling	2. Display 2 buttons: "Yes" and "No" 4. Change status value of chosen product to from Customers table. 6. Hide the 2 buttons. 7. Display Customers page

Admins | Customers page | System

Select customer and confirm disabling

Disable()

Display()

Admins | Customers page | System

h. Manage stores
h.1. Insert

Author	Nguyen Thanh Hau
Use Case Name	Manage Stores – Insert
Actors	Admins
Description	Admins want to insert new Stores
Requirements	Login as Admins

	Actor Actions	System Responses
Basic flow	1. Input information to input fields: Store Name, Longitude, Latitude, Address, City, Contact Person, Phone, Image and Description. Then clicks on Insert button.	2. System check the information [Exception 1] 3. Create new store in database 4. Display StoresAdmin page.
Exception	[Exception 1] 1. Actor left Store Name blank 2. Actor left Longitude blank 3. Actor left Latitude blank 4. Actor left Address blank 5. Actor left Contact Person blank 6. Actor left Phone blank 7. Actor left Description blank	Display error message: - "Store Name can not be blank" - "Longitude can not be blank" - "Latitude can not be blank" - "Address can not be blank" - "Contact Person can not be blank" - "Phone can not be blank" - "Description can not be blank"

h.2. Update

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Stores – Update	
Actors	Admins	
Description	Admins want to update existed stores' information	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Store Name, Longitude, Latitude, Address, City, Contact Person, Phone, Image and Description. Then clicks on Update button.	2. System check the information [Exception 1] 3. Update existed store in database 4. Display StoresAdmin page.
Exception	[Exception 1] 1. Actor left Store Name blank 2. Actor left Longitude blank 3. Actor left Latitude blank 4. Actor left Address blank 5. Actor left Contact Person blank 6. Actor left Phone blank 7. Actor left Description blank	Display error message: - "Store Name can not be blank" - "Longitude can not be blank" - "Latitude can not be blank" - "Address can not be blank" - "Contact Person can not be blank" - "Phone can not be blank" - "Description can not be blank"

h.3. Disable

Author	Nguyen Ngoc Thang	
Use Case Name	Manage Stores – Disable	
Actors	Admins	
Description	Admins want to disable existed stores	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Disable button 3. Clicks on "Yes" to confirm disabling 5. Clicks on "No" to cancel disabling	2. Display 2 buttons: "Yes" and "No" 4. Change status value of chosen product to from Stores table. 6. Hide the 2 buttons. 7. Display StoresAdmin page
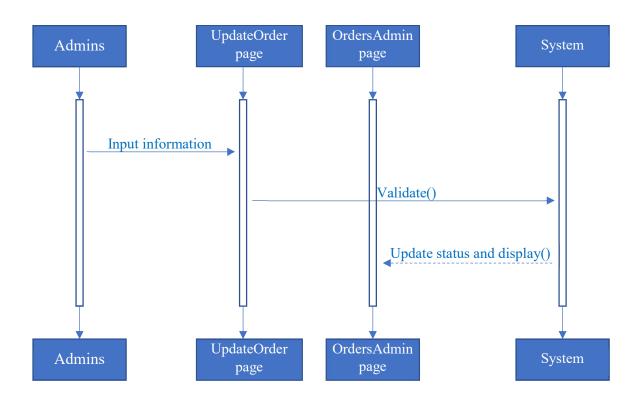
i. Manage orders
i.1. Change orders' status

Author	Le Huu Bay
Use Case Name	Manage Orders – Change orders' status
Actors	Admins
Description	Admins want to update orders' status
Requirements	Login as Admins

|	Actor Actions	System Responses
Basic flow	2. Select new value in dropdown list: Process Status. Then clicks on Update button.	1. System only display possible value base on current value in dropdown list for Admins to select: + Current: "Processing" => Display: "Shipping" and "Completed" + Current: "Shipping" => Display: "Completed" + Current: "Completed" => Disable dropdown list and Update button. 3. Update existed order in database 4. Display OrdersAdmin page.
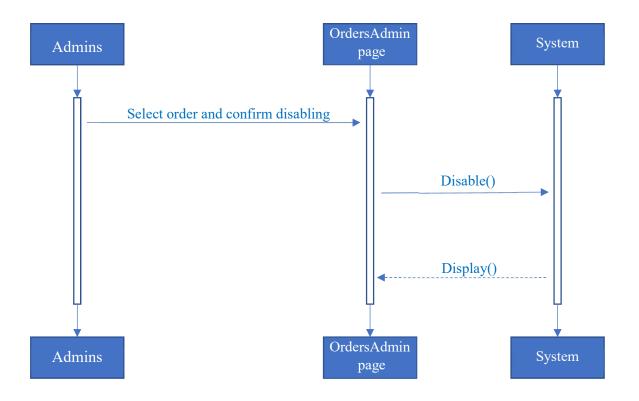
i.2. Disable

Author	Le Huu Bay
Use Case Name	Manage Orders – Disable
Actors	Admins
Description	Admins want to disable existed stores
Requirements	Login as Admins
Pre-conditions	Process Status is not "Completed"

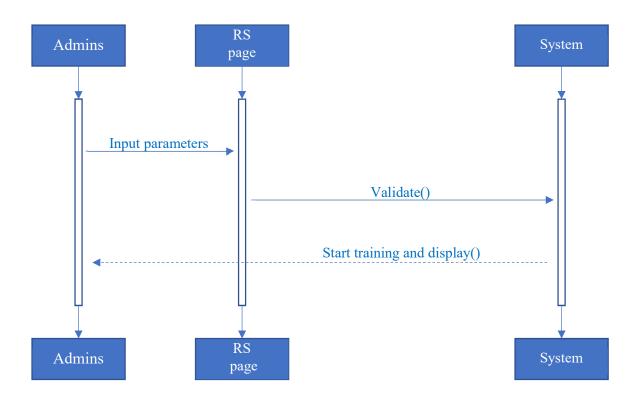|	Actor Actions	System Responses
Basic flow	2. Clicks on Disable button 4. Clicks on "Yes" to confirm disabling 6. Clicks on "No" to cancel disabling	1. if Process Status is "Completed", disable "Disable" button. 3. Display 2 buttons: "Yes" and "No" 5. Change status value of chosen product to from Orders table. 7. Hide the 2 buttons. 8. Display OrdersAdmin page

j. Manage Recommender System (RS)

Author	Nguyen Ngoc Thang	
Use Case Name	Manage RS – Start Training	
Actors	Admins	
Description	Admins start the process to training the Recommender System	
Requirements	Logins as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Training button	2. Start the process to train RS using Collaborative Filtering – Machine Learning Algorithm (described below). 3. Display RS page.

Admins   RS page   System

Input parameters

Validate()

Start training and display()

Admins   RS page   System

⬧ *Recommender System – using Collaborative Filtering algorithm:*

- Data source from Customers' ratings, example:

Ratings					
Products	**Customers**				
	C001	C002	C003	C004	C005
P001	5	3	-	5	2
P002	2	-	-	1	-
P003	-	-	-	5	4
P004	2	4	-	4	3
P005	-	-	-	3	-
P006	3	-	-	2	-

- Initialize to small random values. This serves to break symmetry and ensures that the algorithm learns features that are different from each other.

Features - X				
P001	X_{10}	X_{11}	X_{12}	X_{13}
P002	X_{20}	X_{21}	X_{22}	X_{23}
P003	X_{30}	X_{31}	X_{32}	X_{33}
P004	X_{40}	X_{41}	X_{42}	X_{43}
P005	X_{50}	X_{51}	X_{52}	X_{53}
P006	X_{60}	X_{61}	X_{62}	X_{63}

Theta - θ				
C001	**C002**	**C003**	**C004**	**C005**
θ_{01}	θ_{02}	θ_{03}	θ_{04}	θ_{05}
θ_{11}	θ_{12}	θ_{13}	θ_{14}	θ_{15}
θ_{21}	θ_{22}	θ_{23}	θ_{24}	θ_{25}
θ_{31}	θ_{32}	θ_{33}	θ_{34}	θ_{35}

- Minimize using gradient descent:

$$x_k^{(i)} := x_k^{(i)} - \alpha \left(\sum_{j:r(i,j)=1} ((\theta^{(j)})^T x^{(i)} - y^{(i,j)}) \theta_k^{(j)} + \lambda x_k^{(i)} \right)$$

$$\theta_k^{(j)} := \theta_k^{(j)} - \alpha \left(\sum_{i:r(i,j)=1} ((\theta^{(j)})^T x^{(i)} - y^{(i,j)}) x_k^{(i)} + \lambda \theta_k^{(j)} \right)$$

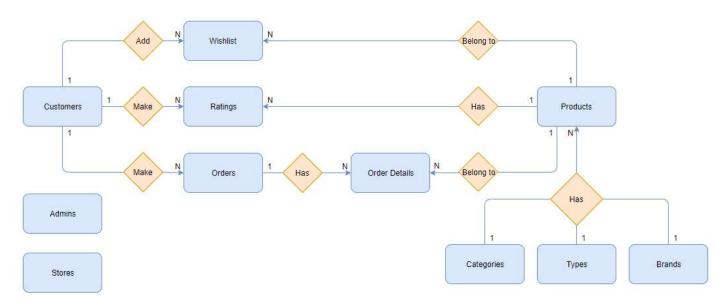- For a user with parameters θ and a product with (learned features x, predict a star rating of θx. Example:

Predictions Ŷ = X * θ					
Products	**Customers**				
	C001	C002	C003	C004	C005
P001	5.05	2.90	3.20	4.80	2.40
P002	1.60	3.10	1.90	1.20	2.40
P003	3.70	4.20	3.90	4.80	4.30
P004	2.20	4.10	3.30	3.50	2.50
P005	2.50	29.00	3.20	3.20	3.40
P006	3.30	1.70	2.10	2.40	3.10
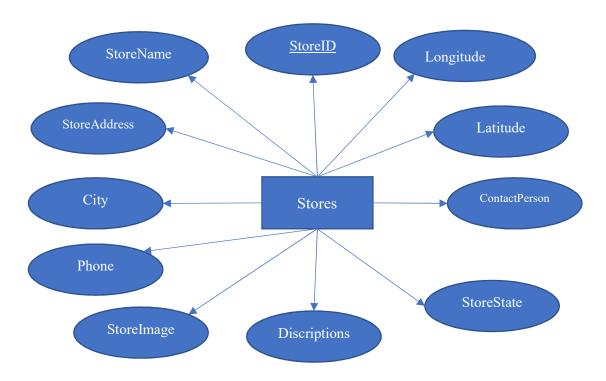
II.   Entity Relationship Diagram (ERD):

1. Logical

2. Tables:

a. Stores:

b. Admins:

c. Categories:

d. Types:

e. Brands:

f. Products:

g. Customers:

h. Wishlist:

i. Ratings:

j. Orders:

k. Order Details:

III. Task sheet:

Project Ref. No.		Project Name: tShop	Date of Preparation of Activity Plan		
No.	Task	Description	Start Date	Complete Date	Team member
01	Review 2	I. 1. Guests - COMPARE	11/04/2018	17/04/2018	Le Huu Bay
02		I. 1. Guests - CHECK OUT			
03		I. 2. Members - MANAGE ORDERS			
04		I. 3. Admins - MANAGE PRODUCTS			
05		I. 3. Admins - MANAGE CATEGORIES			
06		I. 3. Admins - MANAGE ORDERS			
07		II. 2. Tables			
08		I. 1. Guests - SIGN UP			Nguyen Thanh Hau
09		I. 2. Members - LOGIN			
10		I. 2. Members - UPDATE PRIVATE INFORMATION			
11		I. 2. Members - MANAGE WISHLIST			
12		I. 3. Admins - MANAGE ACCOUNTS			
13		I. 3. Admins - UPDATE PRIVATE INFORMATION			
14		I. 3. Admins - DISABLE CUSTOMERS			
15		I. 3. Admins - MANAGE STORES			
16		I. 1. Guests - SEARCH			Nguyen Ngoc Thang
17		I. 1. Guests - FILTER			
18		I. 1. Guests - VIEW PRODUCT DETAIL			
19		I. 1. Guests - CART			
20		I. 2. Members - RATING			
21		I. 3. Admins - MANAGE TYPES			
22		I. 3. Admins - MANAGE BRANDS			
23		I. 3. Admins - MANAGE RECOMMENDER SYSTEM			
24		II. 1. Logical			

Signature of Team Leader   **Signature of Supervisor**

Prepared by: All Members	Approved by: Mr. Ngo Phuoc Nguyen
Project Group No: 1	