REVIEW 2

I. Use Case and Sequence Diagram:
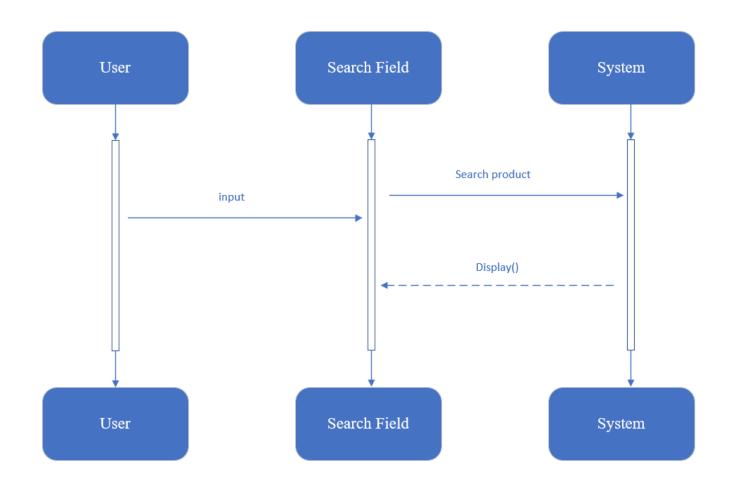
1. Guests:

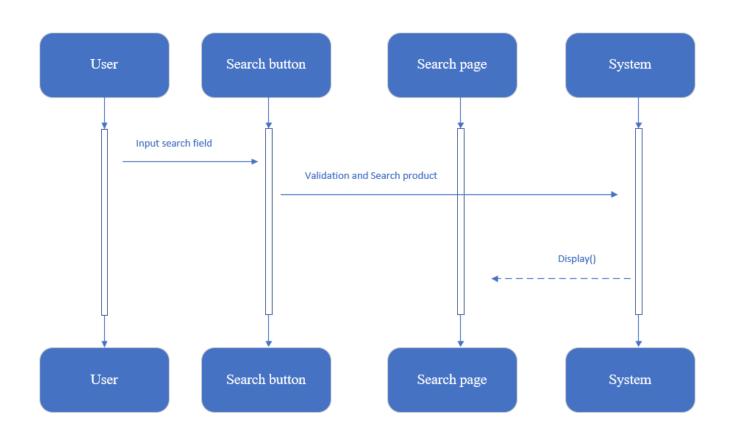### a. Search
a.1. Auto complete:

| Author	NGUYEN TRIEU VI	
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		
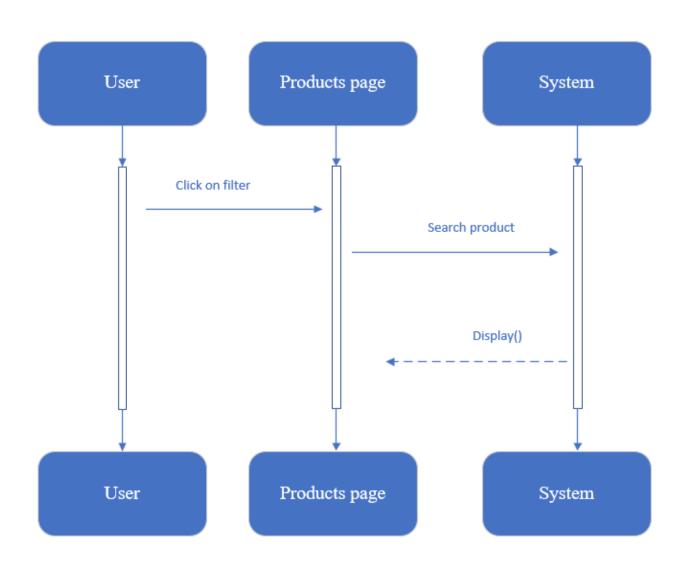
a.2. Search button:

Author	NGUYEN TRIEU VI
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"
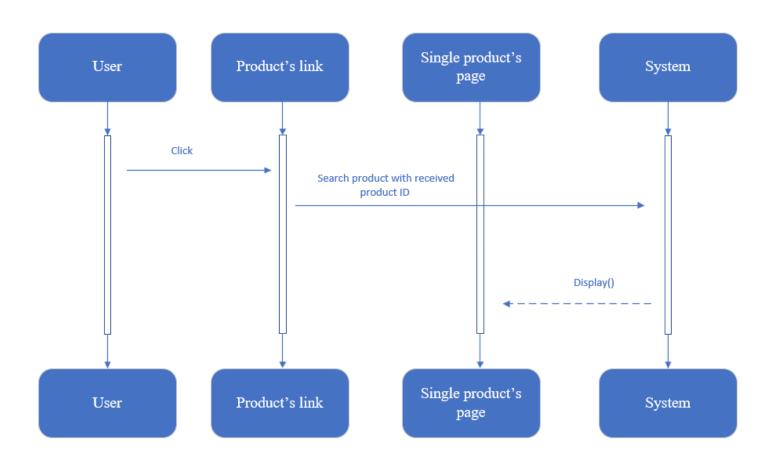
b. Filter

| Author	NGUYEN TRIEU VI	
Use Case Name	Filter	
Actors	Guests and Members	
Description	Allows customers view all products which are in the same categories, brands. 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	2. Receive parameters passing with the links and search products which have Brands or Categories with the parameters. 3. Display the list in the products page.

c. View product details
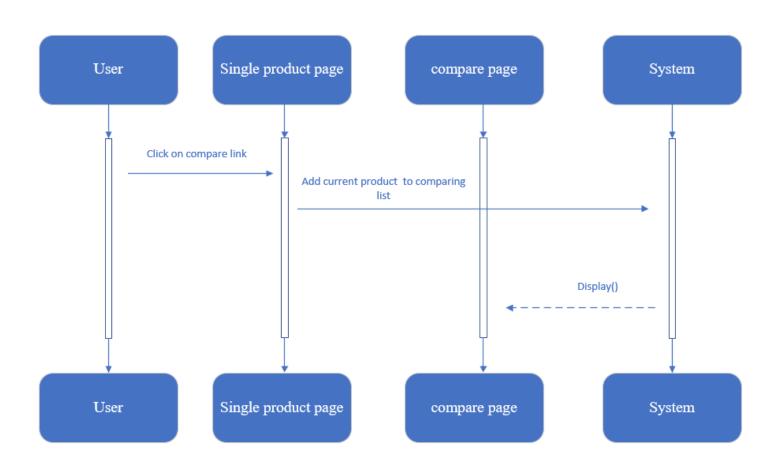
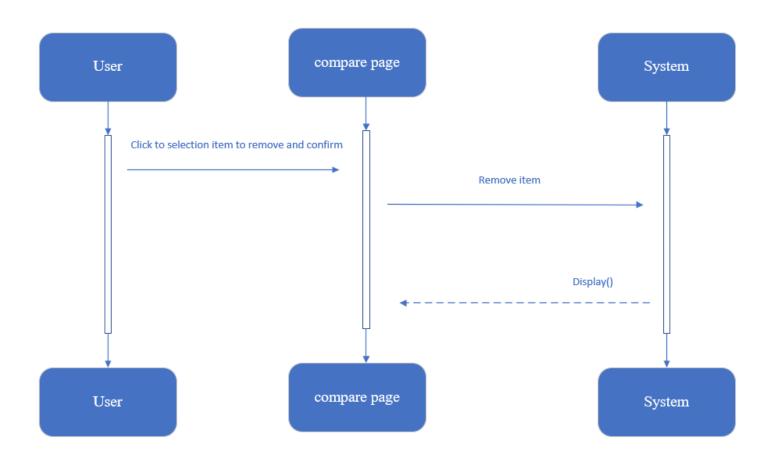| Author	NGUYEN QUY THAI	
Use Case Name	View product details	
Actors	Guests and Members	
Description	When customers click on any products' link, a page will display to show all products' information.	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on products' links	2. Receive parameters passing 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	NGUYEN QUY THAI	
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.	
	Actor Actions	**System Responses**
Basic flow	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.

User   Single product page   compare page   System

Click on compare link

Add current product to comparing list

Display()

User   Single product page   compare page   System
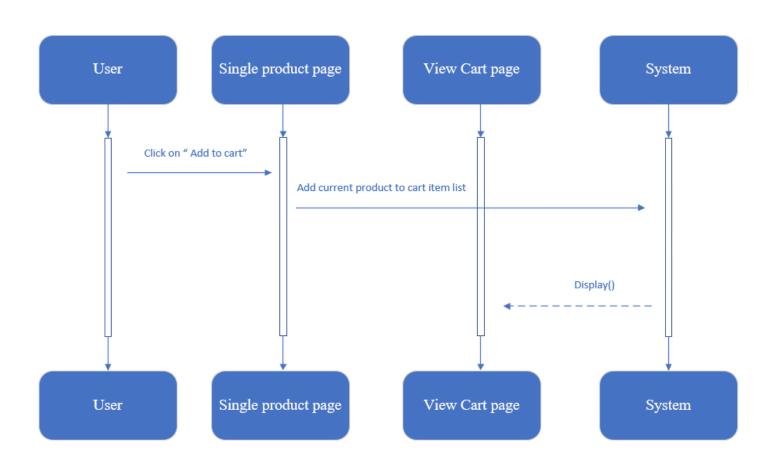
d.2. Remove:

| Author	NGUYEN QUY THAI	
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.
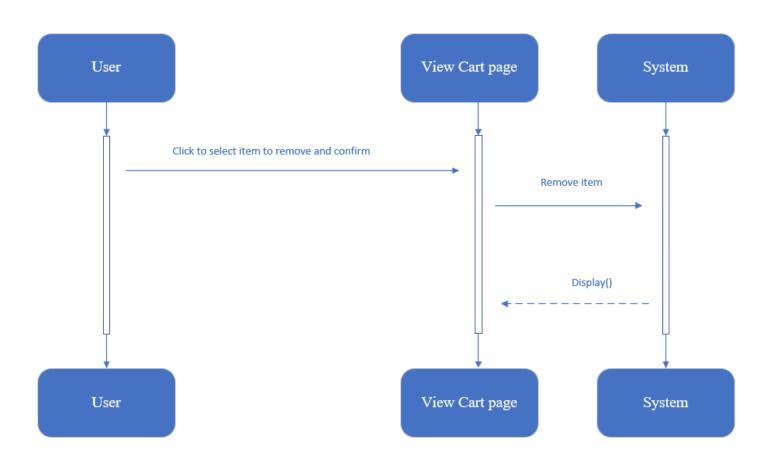
e. Cart
e.1. Add:

| Author	NGUYEN QUY THAI	
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.
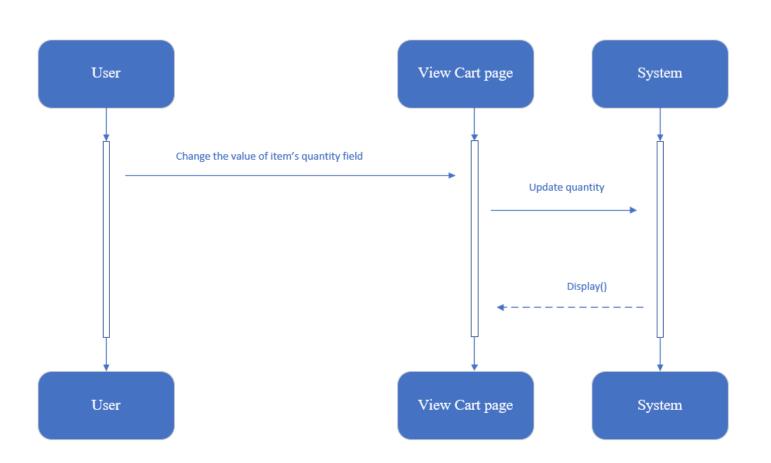
e.2. Remove

| Author	NGUYEN QUY THAI	
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.

e.3. Update quantity:
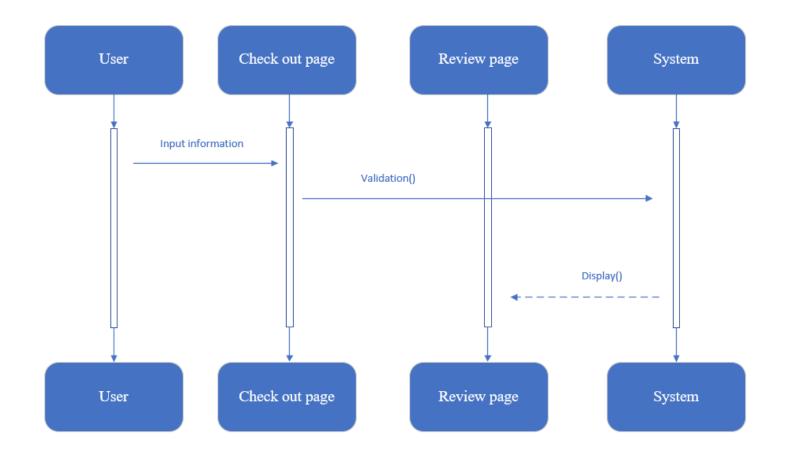
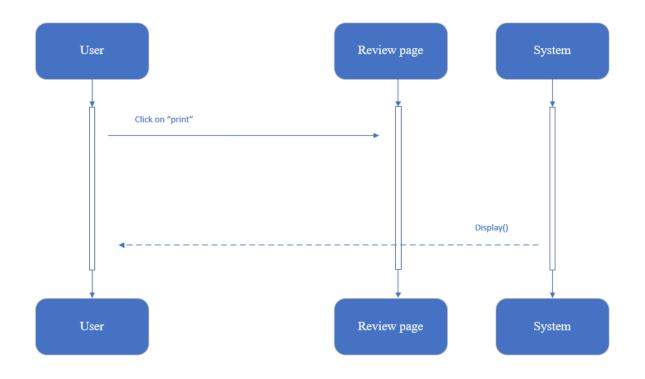| Author	NGUYEN QUY THAI	
Use Case Name	Cart – Update quantity	
Actors	Guests and Members	
Description	When customers input quantity field of cart item, system will update the quantity, subtotal, total and display cart page with new information	
Requirements	Quantity must be greater than 0.	
	Actor Actions	**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".

f. Check out
f.1. Input information

Author	NGUYEN QUY THAI
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) 3. Clicks on Continue button to input Payment method 6. Clicks on Continue button to review order	2. System display input filed for Shipping information: + Receiver's name * + Address * + Phone * + Shipping date * + Note 4. Systemcheck 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 System check the input information [Exception 2] 7. 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]	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"
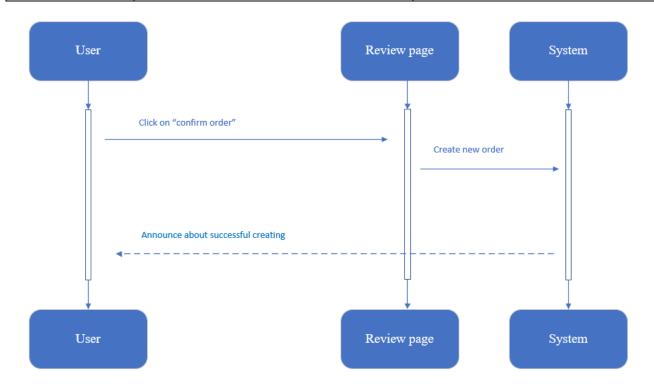
f.2. Print order:

| Author	NGUYEN QUY THAI	
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.
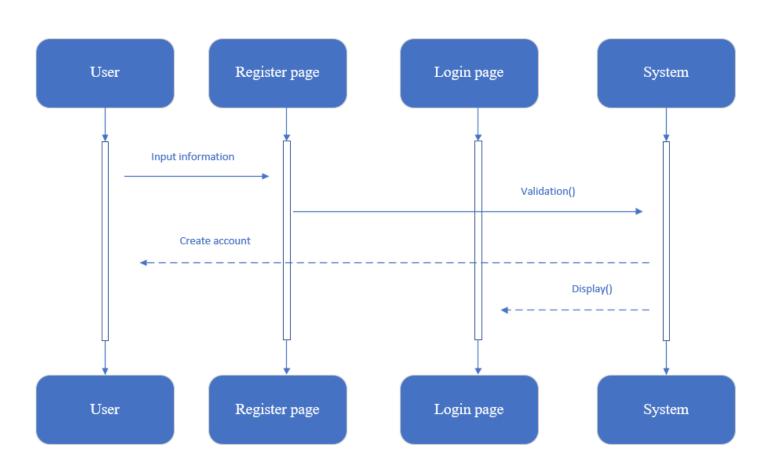
f.3. Confirm order:

| Author	NGUYEN QUY THAI	
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.

g. Sign up
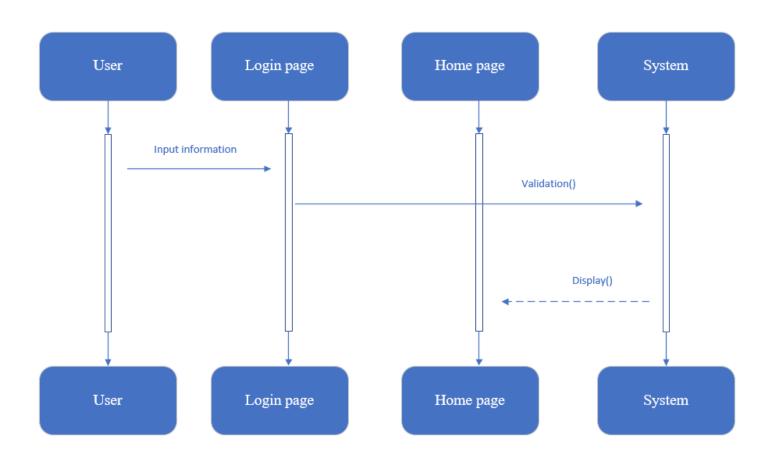
Author	HA HOAI NAM	
Use Case Name	Sign up	
Actors	Guests	
Description	Guest wants to sign up with the website to become a member.	
	Actor Actions	**System Responses**
Basic flow	1. Input information, select avatar and clicks on Submit button	2. Check the information [Exception 1] 3. Display login page.
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
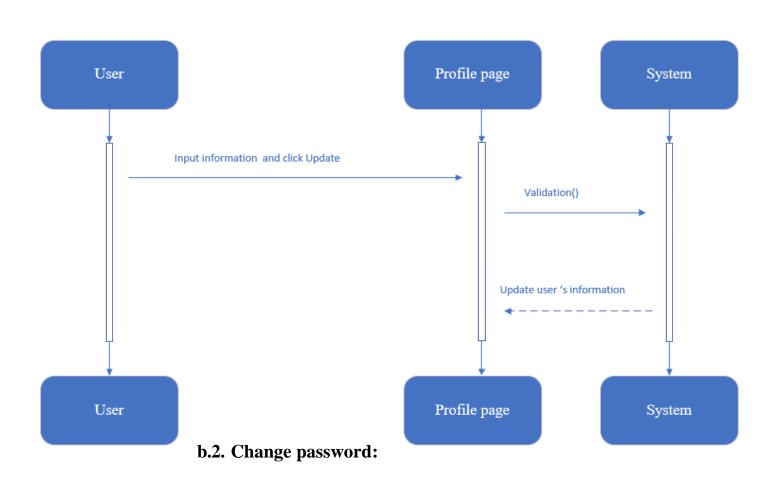
Author	HA HOAI NAM	
Use Case Name	Login	
Actors	Members	
Description	Customers log in with their registered email and password.	
	Actor Actions	**System Responses**
Basic flow	1. Input email and password and clicks on Submit button	2. System check email and password [Exception 1] 3. System tracks the 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"
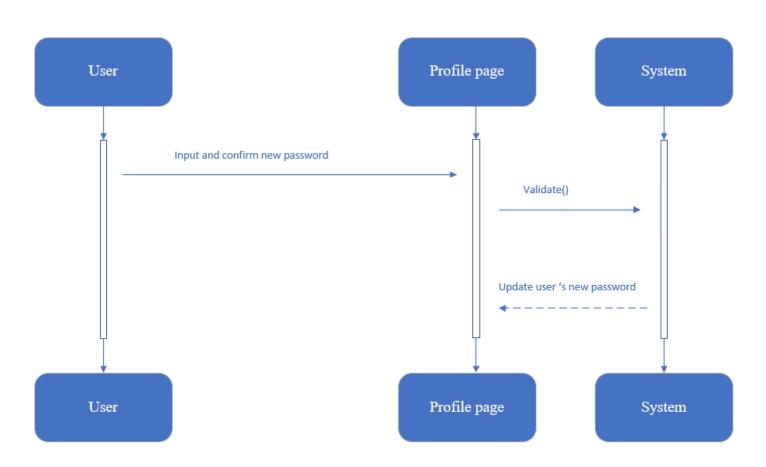
b. Update private information

b.1. Update information:

Author	HA HOAI NAM	
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.2. Change password:
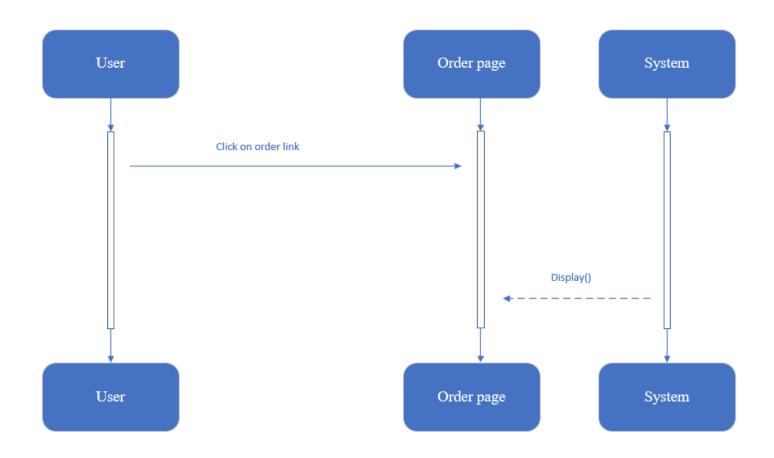
Author	NGUYEN TRIEU VI
Use Case Name	Update information – Change password
Actors	Members
Description	Customer want to change the registered password
Requirements	Login as members

	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:**
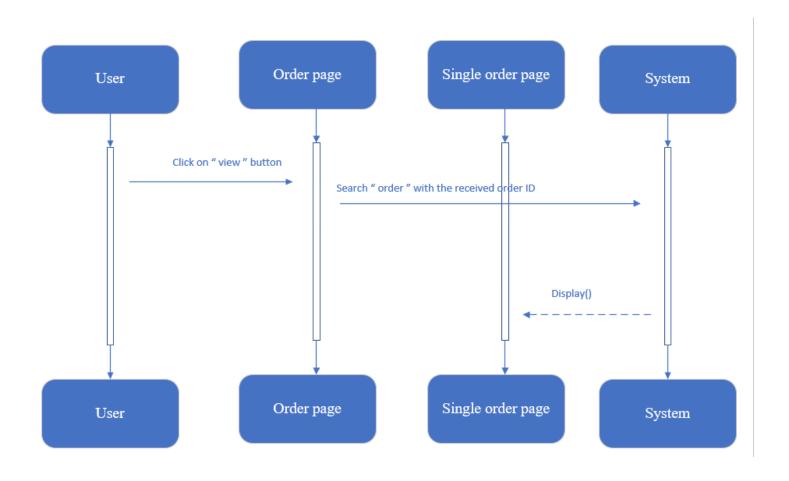
Author	NGUYEN TRIEU VI
Use Case Name	Search – Search button
Actors	Members
Description	Customers can view all orders they made
Requirements	Login as member

	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.

c.2. View order details:

Author	NGUYEN QUY THAI

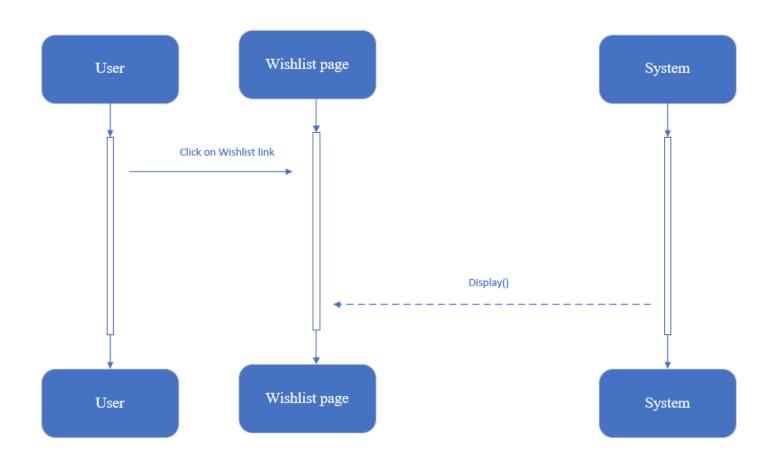| Use Case Name	Search – Search button
Actors	Members
Description	Customers can click on every order to view its details
Requirements	Login as member

	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.

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

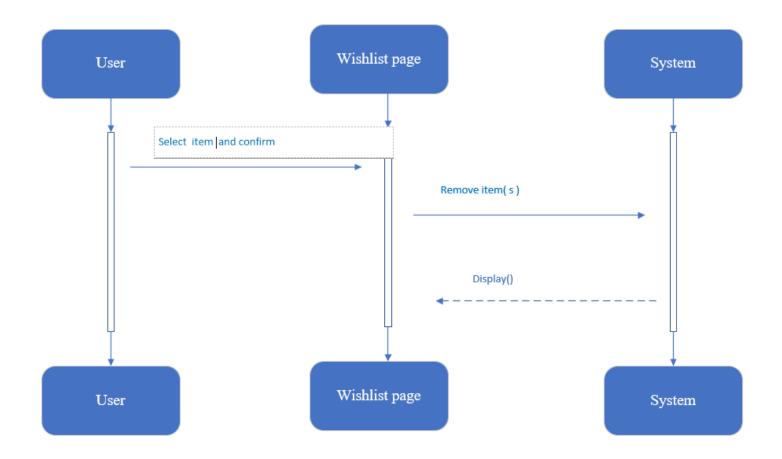| Author	NGUYEN TRIEU VI
Use Case Name	Manage wishlist – view all wishlist items
Actors	Members
Description	Customers can review their wishlist
Requirements	Login as member

	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 TRIEU VI

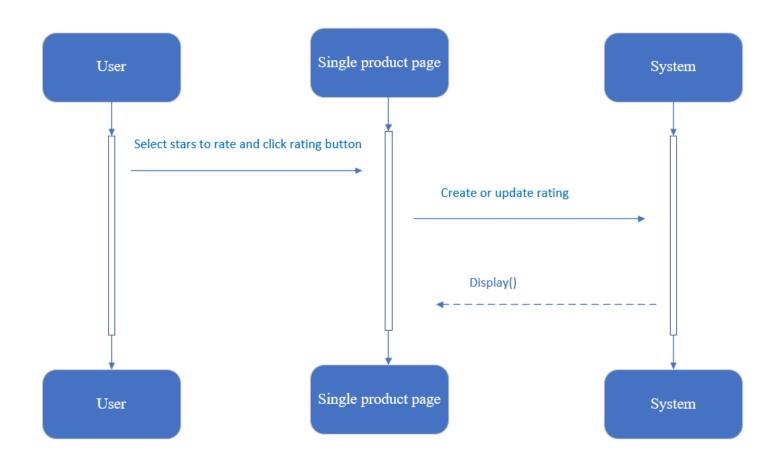| Use Case Name	Manage wishlist – remove wishlist items	
Actors	Members	
Description	Customers can remove items in their wishlists	
Requirements	Login as member	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Remove button	2. Display 2 buttons: "Yes" and "No"
	3. Clicks on "Yes" to confirm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

e. Rating

Author	NGUYEN TRIEU VI
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
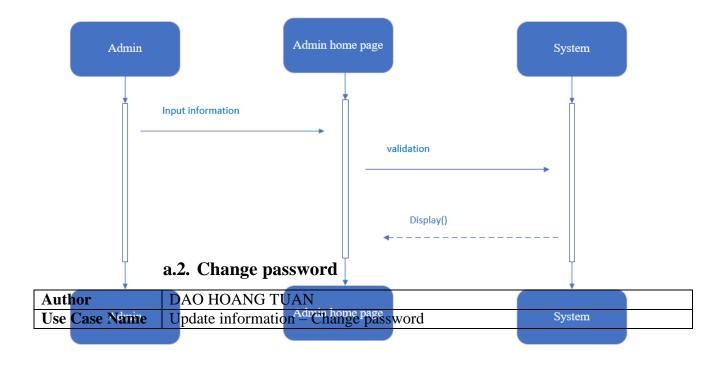
3. Admins:

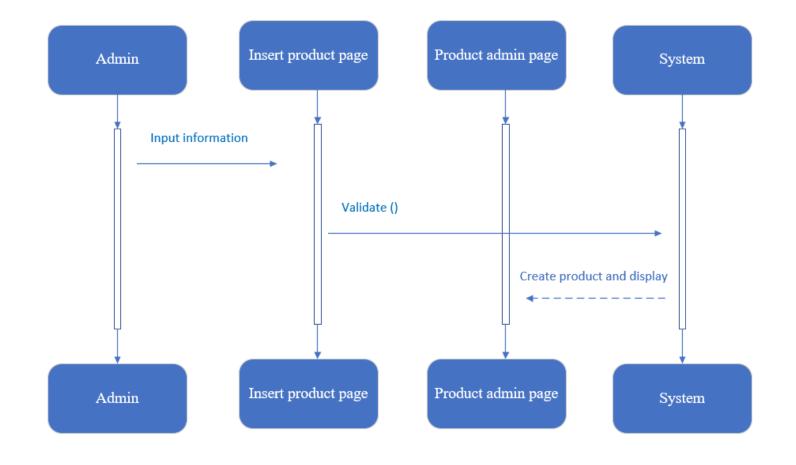### a. Update account information
a.1. Update information

Author	DAO HOANG TUAN	
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. Change Full Name	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"

a.2. Change password

Author	DAO HOANG TUAN
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"
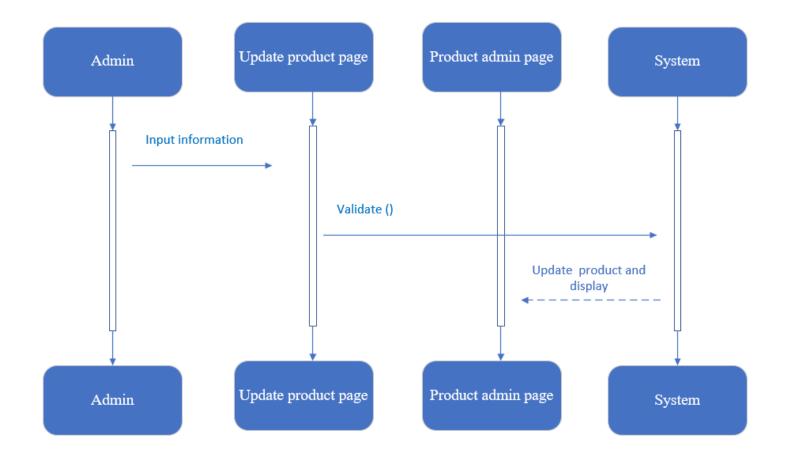
b. Manage products
b.1. Insert

Author	DAO HOANG TUAN
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: productID,ProductName,Price, Category, Brand, Images, Description and proStatus,proDate. 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 4. Actor left Image	Display error message: - "Product Name can not be blank" - "Price can not be blank" - "Description can not be blank" -
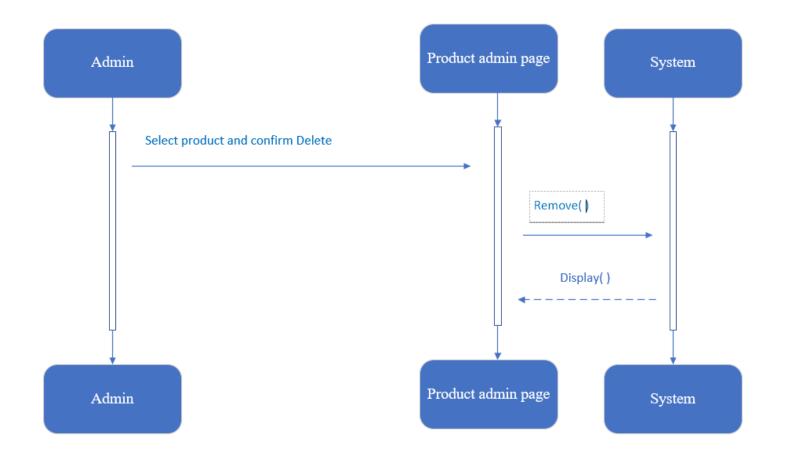
b.2. Update

Author	DAO HOANG TUAN
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: productID,ProductName,Price, Category, Brand, Images, Description and proStatus,proDate. 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"

b.3. Delete
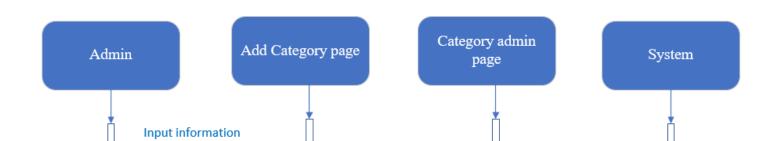
Author	DAO HOANG TUAN	
Use Case Name	Manage Products – Delete	
Actors	Admins	
Description	Admins want to disable existed products	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Remove button 3. Clicks on "Yes" to confirm deleting 5. Clicks on "No" to cancel deleting	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

c. Manage categories
c.1. Insert
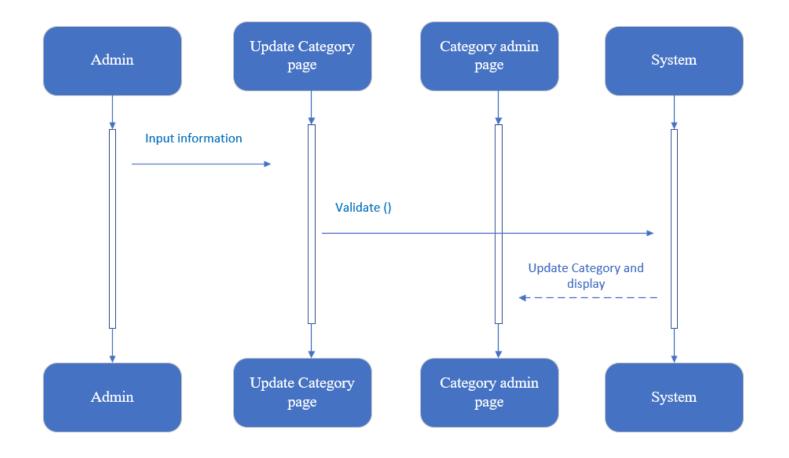
Author	DAO HOANG TUAN	
Use Case Name	Manage Categories – Insert	
Actors	Admins	
Description	Admins want to insert new categories	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Category Name and Image. Then clicks on Insert button.	2. 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"

c.2. Update

Author	DAO HOANG TUAN
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"

Admin | Update Category page | Category admin page | System

Input information

Validate ()

Update Category and display

c.3. Delete

Author	DAO HOANG TUAN	
Use Case Name	Manage Categories – Delete	
Actors	Admins	
Description	Admins want to delete existed categories	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Clicks on Delete button 3. Clicks on "Yes" to confirm deleting 5. Clicks on "No" to cancel deleting	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

d. Manage brands

d.1. Insert
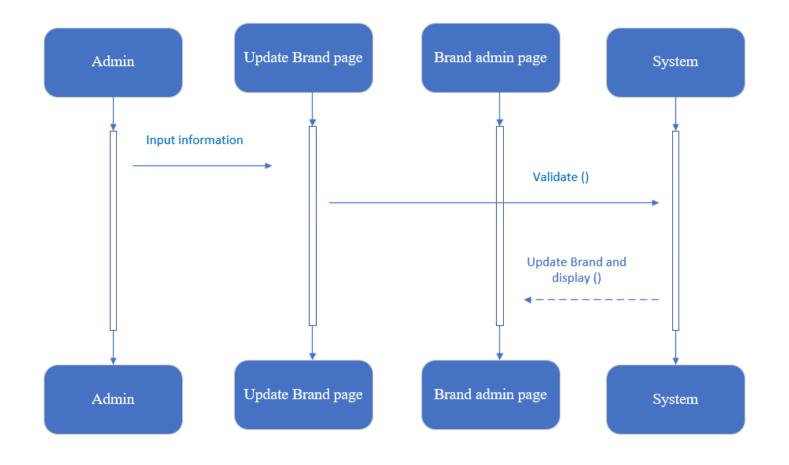
Author	DAO HOANG TUAN	
Use Case Name	Manage Brands – Insert	
Actors	Admins	
Description	Admins want to insert new Brands	
Requirements	Login as Admins	
	Actor Actions	**System Responses**
Basic flow	1. Input information to input fields: Brand Name, Image and Description. Then clicks on Insert button.	2. System check the information [Exception 1] 3. Create new brand in database 4. Display Brands page.

| Exception | [Exception 1] | Display error message: |
| | 1. Actor left Brand Name blank | - "Brand Name can not be blank" |
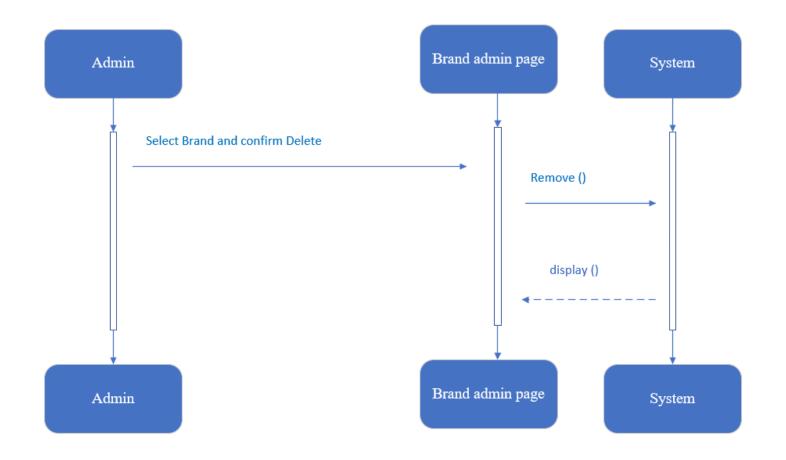
d.2. Update

Author	DAO HOANG TUAN	
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"

d.3. Delete

Author	DAO HOANG TUAN	
Use Case Name	Manage Brands – Delete	
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 deleting 5. Clicks on "No" to cancel deleting	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
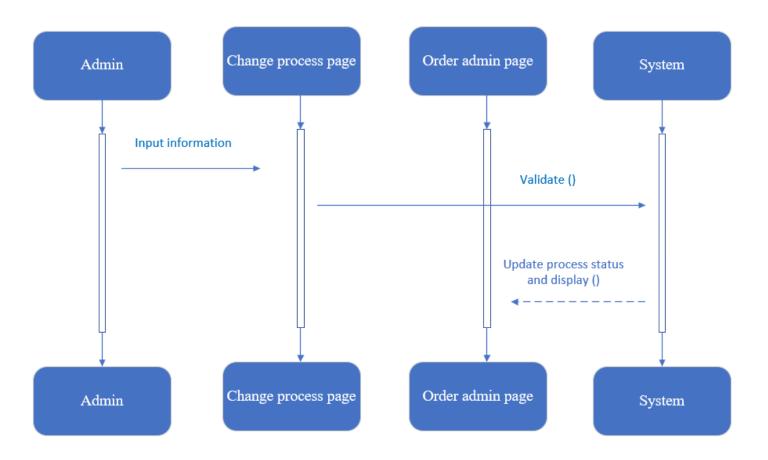
i. Manage orders
i.1. Change orders' status
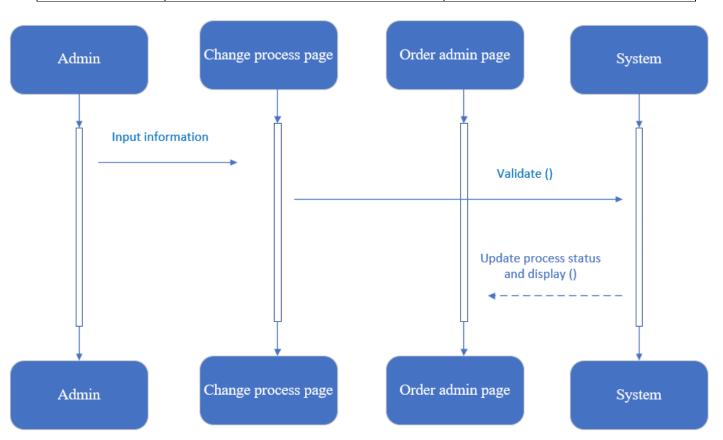
Author	DAO HOANG TUAN	
Use Case Name	Manage Orders – Change orders' status	
Actors	Admins	
Description	Admins want to update orders' status	
Requirements	Login as Admins	
	Actor Actions	**System Responses**

| 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: "Hold" and "Completed" + Current: "Hold" => Display: "Completed" + Current: "Completed" => Disable dropdown list and Update button. 3. Update existed order in database 4. Display OrdersAdmin page.
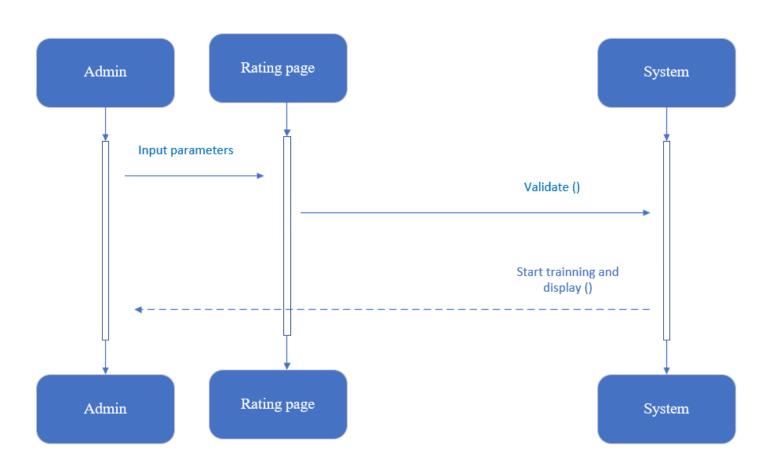
i.2. Cancel

Author	DAO HOANG TUAN	
Use Case Name	Manage Orders – Cancel	
Actors	Admins	
Description	Admins want to cancel order	
Requirements	Login as Admins	
Pre-conditions	Process Status is not "Completed"	
	Actor Actions	**System Responses**
Basic flow	2. Clicks on Cancel button 4. Clicks on "Yes" to confirm canceling 6. Clicks on "No" to cancel canceling	1. if Process Status is "Completed", disable "Cancel" 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 TRIEU VI	
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.
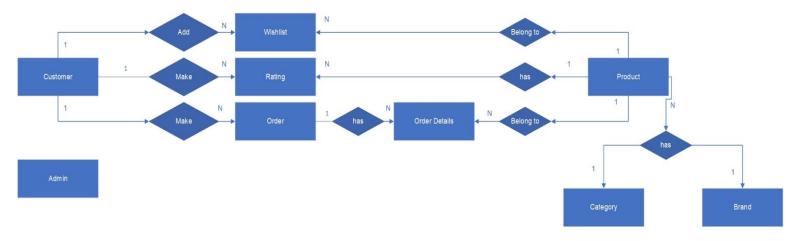
Recommender System – using Collaborative Filtering algorithm:

- Data source from Customers' ratings, example:

	Ratings				
Products	**Customers**				
	C001	C002	C003	C004	C005
P001	5	3	-	2	5
P002	2	-	-	-	1
P003	-	-	-	4	5
P004	2	4	-	3	4
P005	-	-	-	-	3
P006	3	-	-	-	2
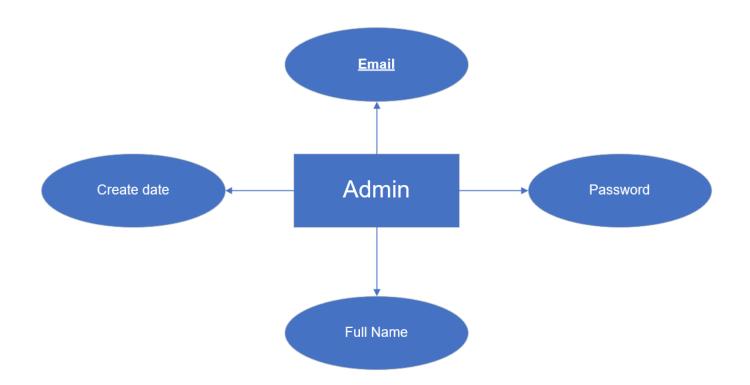
II.   Entity Relationship Diagram (ERD):

1. Logical
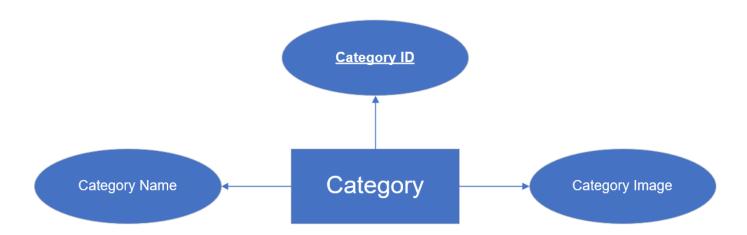
2. Tables:
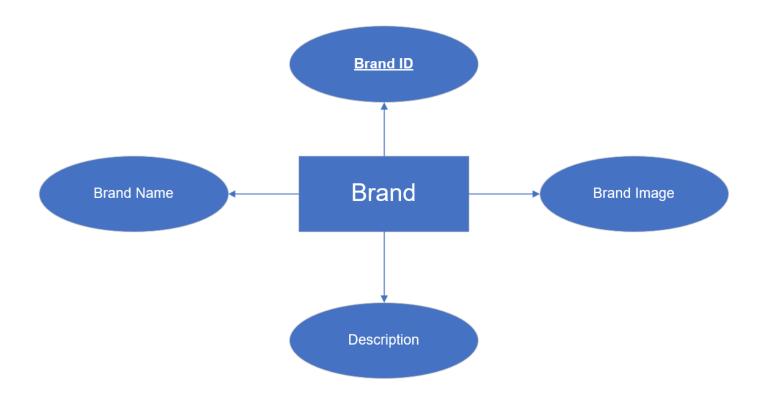
a. Admins:
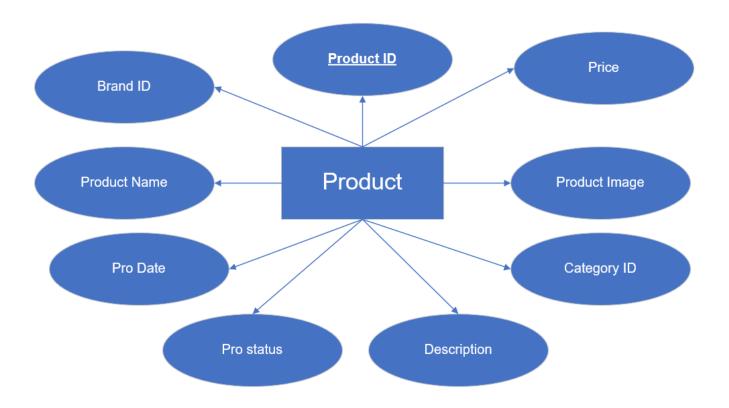
b. Categories:
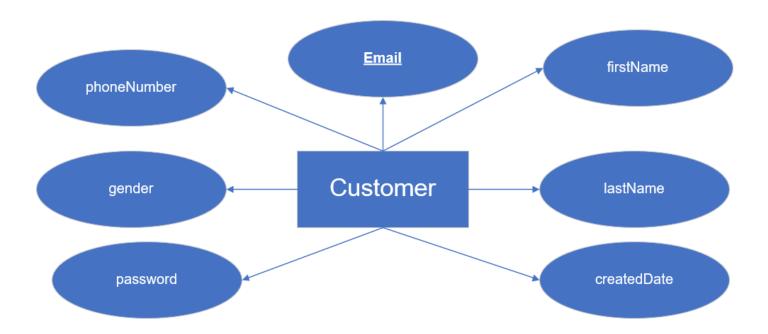
c. Brands:
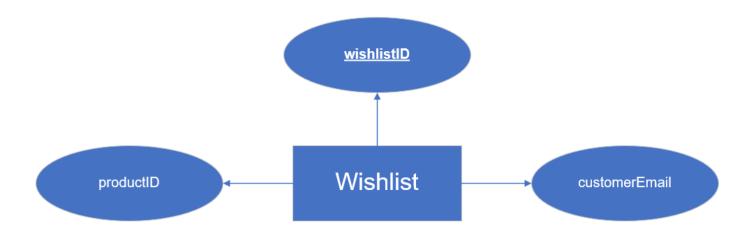
d. Products:
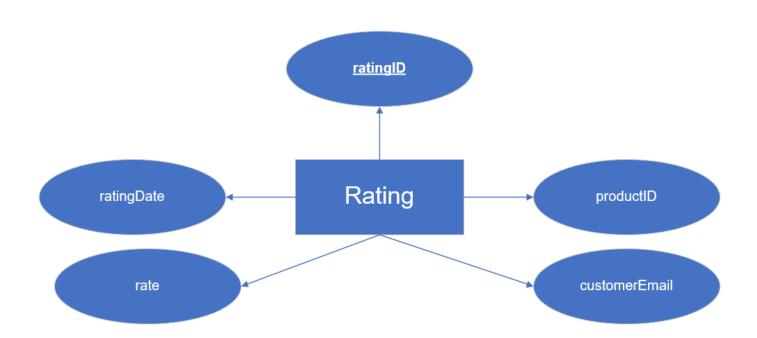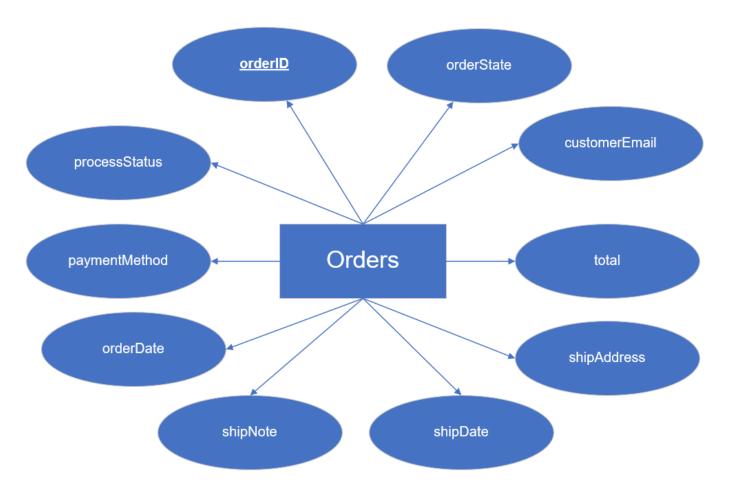

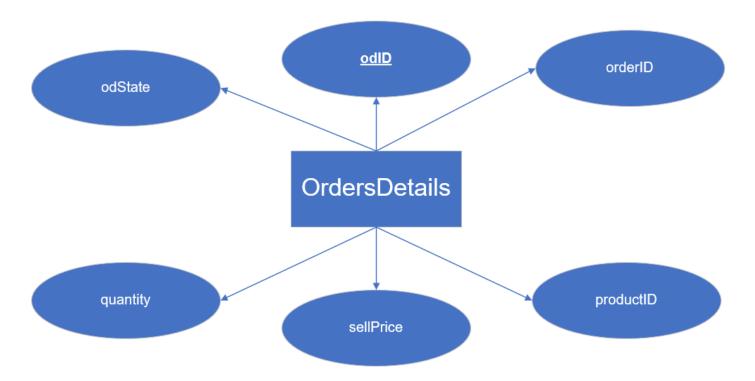### e. Customers:

f. Wishlist:

g. Ratings:

h. Orders:

i. Order Details:

III.   Task sheet:

Project Ref No.		Project Name:	Date of Preparation of activity plan		
No.	Task	Description	Start Date	Complete Date	Team Member
01	Review 2	CART	18/05/2019	24/05/2019	NGUYEN QUI THAI
02		COMPARE			
03		CHECKOUT			
04		VIEW PRODUCT DETAIL			
05		ORDER			
		ORDER DETAILS (INVOICE)			
06		REPORT TOP PRODUCT SOLD			
07		RATING			NGUYEN TRIEU VI
		RESET PASSWORD CUSTOMER			
08		SEARCH UI			
09		WISH LIST			
		CHECK BIRTHDAY			
10		RECOMMENDATION PRODUCT			
		LOGIN WITH GOOGLE ACCOUNT			
		REPORT TOP WISHLIST OF PRODUCT			
11		SIGN UP			HA HOAI NAM
12		LOG IN			
13		LOG OUT			
14		MULTILANGUAGE			
		UPDATE INFORMATION ACCOUNT			
15		MANAGE ORDERS			DAO HOANG TUAN
16		MANAGE PRODUCTS			
17		MANAGE CATEGORIES			
		MANAGE BRAND			
18		UPDATE CATEGORY			
19		UPDATE PRODUCT			
20		UPDATE BRAND			
21		REPORT TOP CUSTOMER BUY MORE			