

SOFTWARE REQUIREMENT SPECIFICATION

Clothing online shop – SE1703

– Hanoi, August 2023 –

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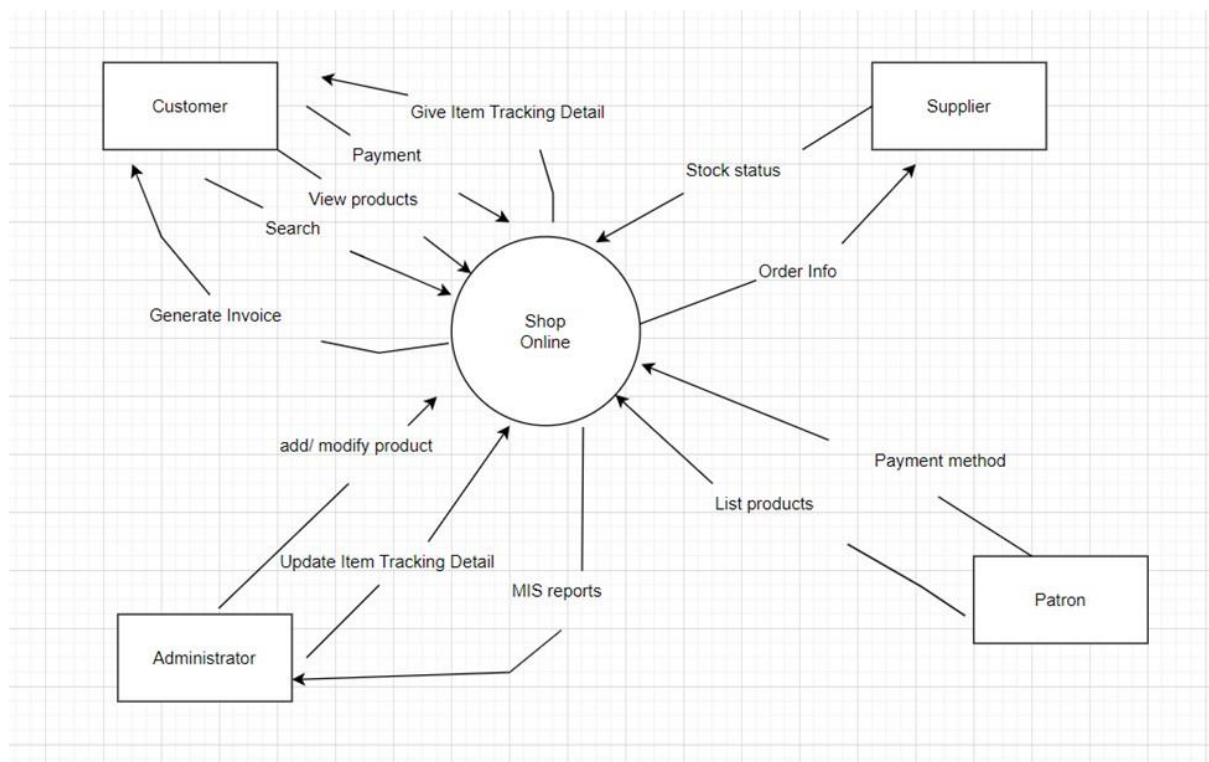
I. Product Overview

1.1. Product Vision

For fashion enthusiasts and shoppers worldwide, the Online Clothes Shopping platform is a cutting-edge web and mobile application that redefines the way people discover, explore, and purchase clothing items. By providing a seamless and personalised shopping experience, this platform empowers users to effortlessly browse through a vast collection of trendy and high-quality garments from various

brands and designers. With features such as detailed product descriptions, virtual fitting rooms, and real-time customer reviews, the Online Clothes Shopping platform not only simplifies the purchasing process but also enhances customer satisfaction and confidence in their buying decisions. By bridging the gap between fashion enthusiasts and their desired garments, this platform creates a global community of fashion-forward individuals, enabling them to express their unique style, stay up-to-date with the latest fashion trends, and ultimately transform the way the world shops for clothes.

1.2. Product Context



1.3. Major Features

FE-01: Shopping cart system for users to save the products they want to buy

FE-02: Users can pay for orders with cash or use a third-party payment service.

FE-03: Create, view, modify, delete, and classify for product

FE-04: The system allows users view order history

FE-05: Product sort blog, product order by create time, search product, search blog

FE-06: Create, view, modify, delete, and classify for Blog

FE-07: The system allows employees to interact directly with customers using 3rd party software

FE-08: Users can send feedback after each purchase

FE-09: The system allows users to login, register, edit profiles

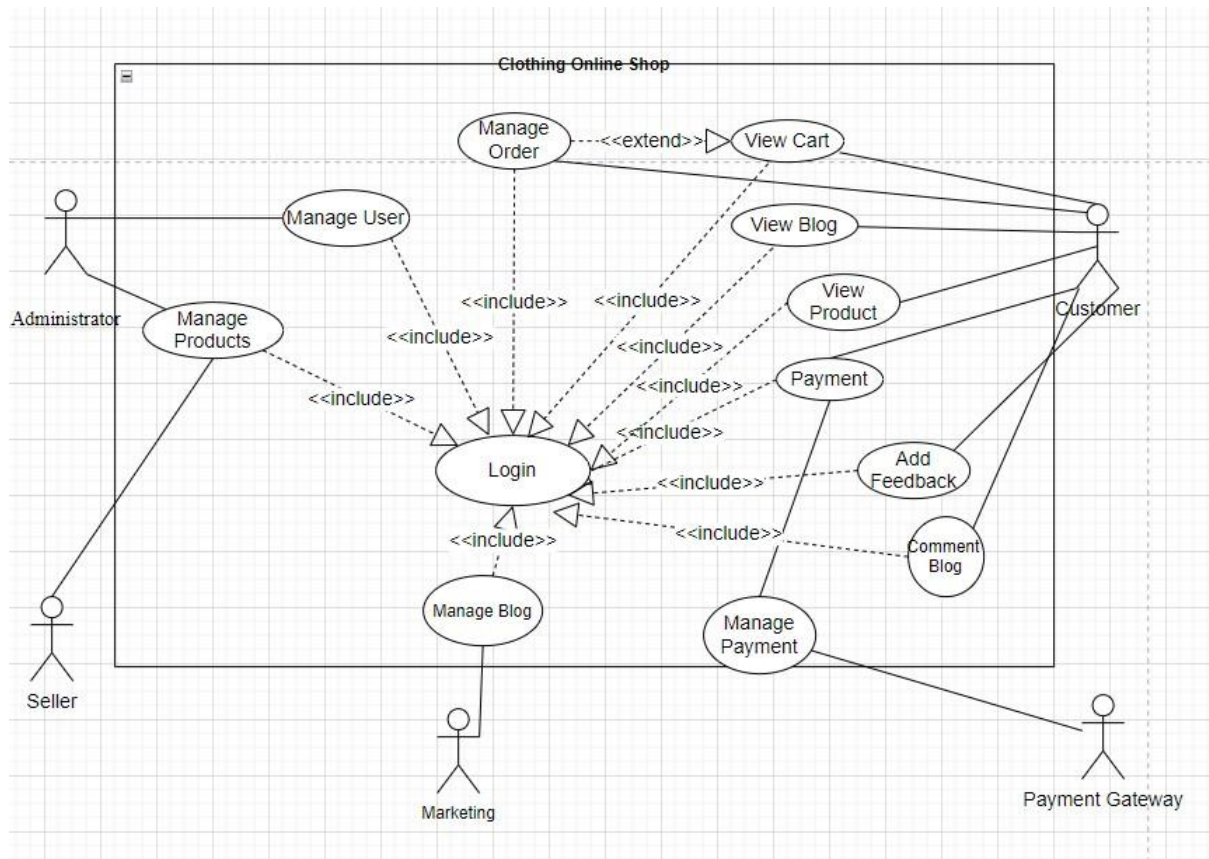
FE-09: Provide system access through smartphone, tablet, and Internet

1.4. User Requirements

1.4.1 Actors List

#	Actor	Description
1	Administrator	The person responsible for managing and maintaining the clothing online shop's backend system and database.
2	Customer	The end-user who interacts with the clothing online shop to browse, search for, and purchase clothes.
3	Seller	The person responsible for providing the clothing items for sale and managing the fulfilment process, ensuring that customers receive high-quality products and services.
4	Payment Gateway	The third-party payment service that processes payments made by the customer.
5	Marketing	Taking advantage and successfully exploiting marketing strategies is considered an effective solution to help you quickly achieve your goals and bring in great profits

1.4.2 Use Cases



ID	Feature	Use Case	Description
01	Manage Order	View cart	Customers can see the list of products in cart.
02	Manage Order	Add cart	Customers can add products to carts.
03	Manage Order	Remove cart	Customers can remove products into cart.
04	Manage Order	View history orders	Customers can see their previous orders,
05	Manage Order	Payment	Customers can purchase their orders in cart through cash or bank.

06	Products Operation	Add products	Sellers (or Administrators) can add new products.
08	Products Operation	Update products	Sellers (or Administrators) can update the existing products.
09	Products Operation	Remove products	Sellers (or Administrators) can delete new products.
10	Products Operation	Search products	Customers can search for products.
11	Products Operation	Sort products	Customers can sort by alphabetical name (or date) products.
12	Products Operation	Classify products	Customers can find products through categories
13	Products Operation	View products	Customers can see the detail description of the product
14	Products Operation	Add Feedback	Customers can add feedback about products
15	Blog Operation	Add blogs	Sellers (or Administrators) can add new blogs
16	Blog Operation	Update blogs	Sellers (or Administrators) can update the existing blogs.
17	Blog Operation	Remove blogs	Sellers (or Administrators) can delete new blogs.

18	Blog Operation	Search blogs	ustomers can search blogs about the product
19	Blog Operation	Sort blogs	Customers can sort blogs based on date.
20	Account Management	View profile	Customers (or Sellers) can see their or other account profiles.
21	Account Management	Update profile	Customers (or Sellers) can update their profiles.
22	Account Management	Register	Customers (or Sellers) can create new accounts.
23	Customer Support	FAQs	Customers ask support questions through FAQs, and sellers can answer through it.
24	Customer Support	Direct messages	Customers ask support questions directly to Sellers, and sellers can support them.

1.5. Assumptions & Dependencies

-AS-1: Customers have access to the internet and possess the necessary devices (such as smartphones, tablets, or computers) to browse and make purchases on the online shop.

-AS-2: The online shop will provide accurate and up-to-date product information, including pricing, sizes, color, and availability.

-AS-3: Customers are familiar with the concept of online shopping and feel comfortable making purchases through a website.

-AS-4: Customers will trust the security measures implemented by the online

-DE-1: The online shop relies on a stable and secure internet connection to

-DE-2: The online shop requires regular updates and maintenance to address software vulnerabilities, ensure compatibility with new devices and browsers, and enhance user experience.

-DE-3: The online shop's functionality and performance depend on the underlying technology stack, including web servers, databases, and content delivery networks.

-DE-4: The integration of your online store with a reliable and efficient payment service provider is critical to ensuring on-time and accurate response to payments.

1.6. Limitations and Exclusions

-Multilingual user interface: The online store system does not support multilingual user interface. Customers will only be able to use the user interface provided in a specific language.

-Updating delivery schedule: The online store system does not update detail delivery schedule, but only provide the estimated delivery time

-Integration with social networks: The online store system does not integrate directly with social networks such as Facebook, Instagram or Twitter. Product sharing or shopping will not be directly connected to these social platforms.

-Ability to create and customize products: The online store system does not offer the ability to create custom products or customize clothing patterns. Customers will only be able to purchase pre-designed and pre-made products.

-Direct phone ordering support: The system does not provide direct phone ordering support. Customers can only order through the online store's website.

1.7. Business Rules

ID	Category	Rule Definition
BR-01	Constraints	The online shop will operate 24/7, allowing customers to make purchases at any time.
BR-02	Constraints	Orders must be placed using valid payment methods accepted by the online shop.
BR-03	Constraints	The system must support multiple users accessing the website .simultaneously without significant performance degradation or loss of functionality.
BR-04	Operations	Staff members are responsible for regularly conducting inventory checks to ensure accurate product quantity and size information on the website.
BR-05	Delivery	The online shop guarantees to deliver the purchased items ...within 10-15 business days from the date of order confirmation.
BR-06	Delivery	In the event of any unexpected delay in delivery, the online shop will notify the customer promptly and provide an estimated revised delivery timeframe.

BR-07	Computations	Order total is calculated as the sum of the prices of selected items, including applicable taxes, shipping fees, and any discounts.
BR-08	Operations	Employees who wish to participate in payroll deductions for company purchases need to file a claim with Human Resources or follow the process prescribed by the company.
BR-09	Customer feedback	Customer reviews and ratings will be displayed on the website, allowing customers to provide feedback and information about their experiences with the products or services.
BR-10	Acts	Customers must create an account and provide accurate andup-to-date personal information for order processing anddelivery purposes.

II. Use Case Specifications

2.1 Add Carts

ID and Name:	UC-01 Add Carts		
Created By:	Trần Quang Hà	Date Created:	04/06/2023
Primary Actor:	Customer	Secondary Actors:	
Description:	This use case describes the process of adding a product to the cart by the customer.		
Trigger:	A Patron indicates that he wants to order a meal		

Preconditions:	<p>PRE-1. The customer must be logged in to their account.</p> <p>PRE-2. The customer must have selected a product they wish to purchase.</p>
Postconditions:	<p>POST-1. The product is added to the customer's cart and the cart is updated with the new product information.</p>
Normal Flow:	<ol style="list-style-type: none"> 1. The customer selects the desired product and clicks the "Add to Cart" button. 2. The system checks the availability of the product and adds it to the customer's cart. 3. The system displays the updated cart with the added product. 4. The customer may continue shopping or proceed to checkout. Patron either confirms meal order (continue normal flow) or requests to modify meal order (return to step 2).
Alternative Flows:	<ul style="list-style-type: none"> - If the product is not available, the system displays an error message and the product is not added to the cart. - If the customer attempts to add a product that is already in their cart, the system increases the quantity of the product in the cart instead of adding a new item.
Exceptions:	<ol style="list-style-type: none"> 1. Product out of stock: If the product is out of stock, the system should display an error message and prevent the customer from adding the product to their cart. 2. Invalid product information: If the product information is invalid or incomplete, the system should display an error message and prevent the customer from adding the product to their cart. 3. System error: If there is a system error or outage during the process of adding the product to the cart, the system should display an error message and prompt the customer to try again later..

Priority:	High		
Frequency of Use:	Multiple times per day by customers.		
Business Rules:	BR-1, BR-3, BR-10		
Other Information:	<ol style="list-style-type: none"> 1. The system should display the product name, price, and quantity in the cart after it has been added. 2. The system should display an error message if the customer attempts to add a product that is no longer available or has been discontinued. 3. The system should allow the customer to view their total order amount and any applicable taxes or fees before they proceed to checkout. 4. The system should allow the customer to apply any relevant discounts or promotional codes to their order before they proceed to checkout. 		
Assumptions:	The system will be able to handle a high volume of requests and will not experience significant downtime or errors.		

2.2 View Order History

ID and Name:	UC-02 View Order History		
Created By:	Phan Thành Đạt	Date Created:	04/06/2023
Primary Actor:	Customer	Secondary Actors:	

Description:	This use case describes the process of a customer viewing their own history order information.
Preconditions:	<p>PRE-1. The customer must be logged in to their account.</p> <p>PRE-2. The customer must have made at least one purchase on the website or application.</p>
Postconditions:	POST-1. The customer is able to view their order history and obtain copies of their order information as desired.
Normal Flow:	<ol style="list-style-type: none"> 1. The customer clicks on the "Order History" or "My Orders" button. 2. The system displays a list of the customer's previous orders, including the order date, order number, and total order amount. 3. The customer can click on a specific order to view more detailed information, such as the order items, shipping and billing addresses, and payment information. 4. The customer can click on the "Print" or "Download" button to obtain a copy of the order information.
Alternative Flows:	<ul style="list-style-type: none"> - If the customer has not yet made any purchases, the system will display a message indicating that there is no order history available. - If the customer has made purchases but cannot see their order history, the system may be experiencing technical difficulties and the customer should contact customer support for assistance.

Exceptions:	<ul style="list-style-type: none"> - No order history found: If the customer has not yet made any purchases, the system should display a message indicating that there is no order history available. - Database error: If there is a database error or outage during the process of retrieving the order history, the system should display an error message and prompt the customer to try again later. - Incomplete order history: If the order history information is incomplete or inaccurate, the system should display an error message and prompt the customer to contact customer support for assistance. - System error: If there is a system error or outage during the process of viewing the order history, the system should display an error message and prompt the customer to try again later.
Priority:	Medium
Frequency of Use:	Multiple times per month or year by customers
Business Rules:	BR-4, BR-10

Other Information:	<ol style="list-style-type: none"> 1. The system should display the order number, date, and total order amount for each order in the order history list. 2. The system should allow the customer to sort the order history list by date, order number, or total order amount. 3. The system should allow the customer to filter the order history list by a specific date range or order status (e.g. shipped, delivered, cancelled). 4. The system should allow the customer to click on a specific order to view more detailed information, such as the order items, shipping and billing addresses, and payment information. 5. The system should allow the customer to request a return or exchange for a specific order directly from the order history page. 6. The system should display an error message if the customer attempts to view order history that does not belong to them or if they are not logged in to their account.
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2.3 Add Products

ID and Name:	UC-03- Add Products		
Created By:	Nguyen Thai Phong	Date Created:	03/06/2023
Primary Actor:	Seller (or Admin)	Secondary Actors:	Shop Online
Description:	Sellers (or Administrators) access the Clothing Online Shop, add new products to the system by providing detailed product information.		
Trigger:	Seller (or Admin) indicates a new product to be added.		

Preconditions:	<p>PRE-1. Seller (or Administrator) is logged into the system.</p> <p>PRE-2. Sellers or Administrators have the necessary permissions to add products.</p>
Postconditions:	<p>POST-1. New products are added to the system.</p> <p>POST-2. The changes made to the product are reflected in the online shop.</p>
Normal Flow:	<ol style="list-style-type: none"> 1. Seller (or Administrator) access to the Clothing Online Shop. 2. The system displays the interface to add products. 3. Seller (or Admin) provides detailed product information such as name, description, price, image, and available quantity. 4. Seller (or Admin) confirms the addition of the product. 5. The system checks the validity of the entered information. 6. The system updates information of products in the system. 7. The system displays a message confirming the successful addition of products.

Alternative Flows:	<p>1.0 Seller (or Admin) did not provide enough details for the product.</p> <p>1.1 The system displays an error message asking the seller (or Administrator) to provide full information.</p> <p>1.2 Go back to step 3 of the main thread.</p> <p>2.0 Add Product with Special Promotion:</p> <p>2.1 Sellers or Administrators can add a new product with a special promotion, such as a discounted price or a buy-one-get-one offer.</p> <p>2.2 The sequence of steps remains the same as in the main course, with an additional step to specify the promotion details.</p> <p>3.0 Bulk Product Upload:</p> <p>3.1 Sellers or Administrators can upload a CSV file or use an automated process to add multiple products at once.</p> <p>3.2 The sequence of steps may vary, including steps to select the bulk upload option, provide the file or specify the data source, and validate the uploaded products.</p>
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Exceptions:	<p>1.0.E1 The system detects that the provided product information is invalid.</p> <p>1.1 The system informs the seller about the specific errors or missing information in the product details.</p> <p>1.2 If the seller corrects the product information, the use case continues with adding the product.</p> <p>1.3 If the seller cancels the process of adding the product, the use case is terminated.</p> <p>2.0.E2 Product already exists:</p> <p>2.1 The system informs the seller that the product exists and suggests verifying the product information.</p> <p>2.2 If the seller wants to continue adding the product, the use case returns to step 3 of the normal flow.</p> <p>2.3 If the seller cancels the process of updating the product, the use case is terminated.</p> <p>3.0.E3 System error:</p> <p>3.1 The system displays an error message notifying the seller about the issue and advises them to try again later.</p> <p>3.2 If the seller chooses to continue, they can retry the process. If the error persists, they may need to seek technical support.</p>
Priority:	High
Frequency of Use:	Approximately 50 times per week. Sellers or Administrators may add new products multiple times during a week to continuously update the online shop's inventory and offerings.
Business Rules:	BR-01, BR-02, BR-03, BR-04, BR-08

Other Information:	<ol style="list-style-type: none"> 1. Seller or Admin shall be able to cancel the Adding product process at any time prior to confirming it. 2. Seller or Admin shall be able to view all products he added within the previous six months.
Assumptions:	<ul style="list-style-type: none"> -The online shop system is accessible and functional. -Sellers/Administrators have valid user accounts and necessary permissions to add products. -The online shop has sufficient storage capacity to accommodate new products. -The product categories and attributes are predefined and available for selection during the product addition process. -Sellers/Administrators are knowledgeable about the product addition process and have been trained on how to use the system effectively.

2.4 Update Products

ID and Name:	UC-04- Update Products		
Created By:	Nguyen Thai Phong	Date Created:	03/06/2023
Primary Actor:	Seller (or Admin)	Secondary Actors:	Shop Online

Description:	This use case allows sellers or administrators to update existing products in the online shop.		
Trigger:	Sellers or Administrators indicate the intention to update a product.		
Preconditions:	<p>PRE-1. Sellers or Administrators are logged into the system.</p> <p>PRE-2. Sellers or Administrators have the necessary permissions to update products.</p>		
Postconditions:	<p>POST-1. The selected product is successfully updated with the new information.</p> <p>POST-2. The changes made to the product are reflected in the online shop.</p>		

Normal Flow:	<ol style="list-style-type: none">1. Sellers or Administrators access the product management section of the online shop.2. Sellers or Administrators search for the specific product they want to update.3. Sellers or Administrators select the desired product from the search results.4. Sellers or Administrators modify the relevant details of the product, such as name, description, price, category, and images.5. Sellers or Administrators save the updated product information.6. The system validates the entered data and checks for any errors or missing information.7. If there are no errors, the system updates the product information in the online shop.8. The system displays a confirmation message to Sellers or Administrators indicating that the product has been successfully updated.
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Alternative
Flows:

1.1 Cancel Update

1. User selects the product to be updated from the product list.
2. The system displays a form with the product's information fields (name, description, price, quantity, etc.).
3. User chooses the "Cancel" or similar option.
4. The system displays a confirmation message, canceling the update and discarding any changes made to the product.
5. Return to step 4 of normal flow.

1.2 Delete Product

1. User selects the product to be updated from the product list.
2. The system displays a form with the product's information fields (name, description, price, quantity, etc.).
3. User chooses the "Delete" or similar option.
4. The system displays a confirmation dialog for deleting the product.
5. User confirms the deletion.
6. The system removes the product from the database and displays a confirmation message for successful deletion.
7. User is redirected back to the product list without the deleted product.

Exceptions:	<p>1.0.E1 If there are errors or missing information in the entered data:</p> <ul style="list-style-type: none"> - The system displays error messages indicating the specific issues with the data. -Sellers or Administrators can correct the errors and resubmit the updated product information. -Return to step 6 of the normal flow. <p>2.0.E2 Product not found:</p> <ul style="list-style-type: none"> - The system informs the seller that the product does not exist and suggests verifying the product information. - If the seller wants to continue updating the product, the use case returns to step 2 of the normal flow. - If the seller cancels the process of updating the product, the use case is terminated. <p>3.0.E3 System error:</p> <ul style="list-style-type: none"> - The system displays an error message notifying the seller about the issue and advises them to try again later. - If the seller chooses to continue, they can retry the process. If the error persists, they may need to seek technical support.
Priority:	High
Frequency of Use:	Approximately 30 times per week. Sellers or Administrators may update existing products to modify their details, such as price, description, or availability, based on changes in stock or business requirements.

Business Rules:	BR-01, BR-02, BR-03, BR-04, BR-08
Other Information:	<ol style="list-style-type: none"> 1. Seller or Admin shall be able to cancel the Updating product process at any time prior to confirming it. 2. Seller or Admin shall be able to view all products he updated within the previous six months.
Assumptions:	<ul style="list-style-type: none"> -The online shop system is accessible and functional. -Sellers/Administrators have valid user accounts and necessary permissions to update products. -The products to be updated are already existing in the online shop. -Sellers/Administrators are knowledgeable about the product update process and have been trained on how to use the system effectively.

2.5 Purchase Items

ID and Name:	UC-05 Purchase Items		
Created By:	Nguyen Van Phong	Date Created:	04/06/2023
Primary Actor:	Customer	Secondary Actors:	Seller, Payment Gateway
Description:	A customer wants to purchase items from the online clothes shop and complete the transaction securely.		

Trigger:	The customer indicates their intention to purchase items.
Preconditions:	<p>PRE-1: The customer has a valid account on the online clothes shop website.</p> <p>PRE-2: The desired items are in stock and available for purchase.</p>
Postconditions:	<p>POST-1: The customer receives an order confirmation with the details of the purchased items.</p> <p>POST-2: The inventory is updated to reflect the purchased items.</p>

Normal Flow:

1. The customer logs into their account on the online clothes shop website.
2. The customer browses the available items and selects the desired products.
3. The customer adds the selected items to their shopping cart.
4. The customer reviews the shopping cart to ensure the correct items, quantities, and prices.
5. The customer proceeds to the checkout process.
6. The system prompts the customer to provide the shipping address and contact details.
7. The customer enters the required information and proceeds to the payment step.
8. The customer selects a preferred payment method.
9. The system redirects the customer to the chosen payment gateway to complete the transaction securely.

	<p>10. The customer provides the necessary payment details on the payment gateway's secure page.</p> <p>11. The payment gateway processes the payment and notifies the system of the transaction status.</p> <p>12. The system confirms the successful payment and generates an order confirmation.</p> <p>13. The customer receives the order confirmation via email, including the details of the purchased items and the shipping information.</p> <p>14. The system updates the inventory to reflect the purchased items, reducing the available quantities.</p> <p>15. The system generates an order number for reference.</p> <p>16. The customer's shopping cart is emptied, ready for their next shopping session.</p>
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Alternative Flows:	None
Exceptions:	<p>If the customer encounters an error during the checkout process:</p> <ul style="list-style-type: none"> a. The system displays an error message and prompts the customer to review the entered information or try again later. b. The customer can contact customer support for assistance. <p>If the payment transaction fails:</p> <ul style="list-style-type: none"> a. The system informs the customer about the failed transaction and provides alternative payment options. b. The customer can try again with a different payment method or contact customer support for further assistance.
Priority:	High
Frequency of Use:	Varies based on customer shopping activities.

Business Rules:	<p>BR-1: The customer must provide valid and accurate shipping and contact information.</p> <p>BR-2: The available payment methods are clearly displayed and supported by the online clothes shop.</p> <p>BR-3: The payment gateway must securely process the customer's payment information.</p> <p>BR-4: The purchased items must be deducted from the inventory upon successful payment.</p>
Other Information:	<p>1. The online clothes shop provides detailed product information, including pricing, sizes, and available colors.</p> <p>2. The customer can apply any applicable discounts or promotional codes during the checkout process.</p> <p>3. The online clothes shop website ensures the security and confidentiality of customer information during the transaction.</p>
Assumptions:	<p>1. The online clothes shop has a well-functioning payment gateway integration.</p> <p>2. The inventory management system is updated in real-time to reflect available stock levels.</p> <p>3. The customer service team is available to assist customers with any issues encountered during the purchase process.</p>

2.6 Process Payment

ID and Name:	UC-06 Process Payment
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Created By:	Nguyen Van Phong	Date Created:	04/06/2023
Primary Actor:	Customer	Secondary Actors:	Seller, Payment Gateway
Description:	A customer wants to securely process the payment for the items in their shopping cart and complete the transaction.		
Trigger:	The customer indicates their intention to proceed with the payment.		
Preconditions:	PRE-1: The customer has added items to their shopping cart. PRE-2: The customer has provided valid shipping and contact information.		
Postconditions:	POST-1: The payment is successfully processed. POST-2: The order management system updates the order status.		

Normal Flow:	<ol style="list-style-type: none"><li data-bbox="475 241 1209 275">1. The customer reviews the items in their shopping cart.<li data-bbox="475 342 1142 376">2. The customer proceeds to the checkout process.<li data-bbox="475 443 1326 477">3. The system prompts the customer to select a payment method.<li data-bbox="475 544 1190 577">4. The customer chooses a preferred payment method.<li data-bbox="475 645 1262 745">5. The system redirects the customer to the chosen payment gateway.<li data-bbox="475 813 1299 913">6. The customer provides the necessary payment details on the payment gateway's secure page.<li data-bbox="475 981 1267 1014">7. The payment gateway processes the payment transaction.<li data-bbox="475 1081 1369 1182">8. The payment gateway sends a notification to the system regarding the transaction status.<li data-bbox="475 1249 1353 1350">9. The system receives the notification and updates the order status accordingly.<li data-bbox="475 1417 1342 1518">10. The system generates an order confirmation and sends it to the customer via email.<li data-bbox="475 1585 1369 1753">11. The customer receives the order confirmation, confirming the successful payment and providing details of the purchased items and shipping information.
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Alternative Flows:	None
Exceptions:	<p>1. If the payment transaction fails:</p> <ul style="list-style-type: none">a. The system informs the customer about the failed transaction and provides alternative payment options.b. The customer can try again with a different payment method or contact customer support for further assistance.
Priority:	High
Frequency of Use:	Varies based on customer shopping activities.

Business Rules:	<ul style="list-style-type: none"> - BR-1: The available payment methods are clearly displayed and supported by the online clothes shop. - BR-2: The payment gateway must securely process the customer's payment information. - BR-3: The order management system updates the order status based on the payment transaction.
Other Information:	<ol style="list-style-type: none"> 1. The online clothes shop ensures the security and confidentiality of customer information during the payment process. 2. The payment gateway integration follows industry standards for secure payment processing.
Assumptions:	<ol style="list-style-type: none"> 1. The online clothes shop has a well-functioning payment gateway integration. 2. The order management system is updated in real-time to reflect the payment status of each order. 3. The customer service team is available to assist customers with any issues encountered during the payment process.

2.7 Update Profile

ID and Name:	UC-07 Update Profile		
Created By:	Nguyen Trong Tung	Date Created:	03/06/2023

Primary Actor:	User	Secondary Actors:	Online shop
Description:	<p>This use case describes the process of updating a user's profile information within an online system. It allows users to modify their personal details, such as name, email address, contact information, and other relevant information stored in their profile. This use case ensures that users can easily and accurately manage their profile information to keep it up to date.</p>		
Trigger:	An user indicates that he wants to change personal information.		
Preconditions:	<p>PRE-1. The user is authenticated and logged into the online system.</p> <p>PRE-2. The user has access permissions to modify their profile information.</p>		
Postconditions:	<p>POST-1. The user's profile information in the online system is updated with the modifications made by the user.</p> <p>POST-2. The user is notified of the successful update of their profile information.</p>		

Normal Flow:	<ol style="list-style-type: none"> 1. The user navigates to the profile settings or account management section of the online system. 2. The user selects the option to update their profile information. 3. The online system displays the current profile information for the user, pre-populated in the corresponding input fields. 4. The user modifies the desired fields, such as name, email address, contact information, or any other relevant details. 5. The user saves the changes or submits the updated profile information. 6. The online system validates the modified information for accuracy and completeness. 7. If any validation errors occur, the online system displays appropriate error messages to the user, indicating the specific fields that require correction. 8. Once the updated profile information passes validation, the online system updates the user's profile data in the system's database. 9. The online system confirms the successful update and displays a notification or confirmation message to the user. 10. The user can review the updated profile information on their profile page or within their account settings.
Alternative Flows:	<ul style="list-style-type: none"> • If the user cancels the profile update process before saving the changes, the online system discards the modifications and returns the user to the previous profile view without any changes. • If the user encounters any technical issues or errors during the profile update process, the online system displays an error message and allows the user to retry or contact support for assistance. • If the user attempts to modify sensitive information that requires additional verification, such as a password change or financial details, the online system may prompt the user to go through an additional authentication step or follow specific security protocols.

Exceptions:	<ul style="list-style-type: none"> • If the user's modified profile information violates any system rules, such as using an invalid email format or exceeding character limits, the online system rejects the changes and prompts the user to correct the relevant fields. • If the user's modified profile information conflicts with existing records, such as an email address already associated with another user account, the online system notifies the user and requests a different value. • If the online system encounters any technical issues or database errors while updating the profile information, the system administrators are alerted, and the error is resolved as soon as possible to ensure data consistency and system stability.
Priority:	High
Frequency of Use:	Approximately 30 times per week.
Business Rules:	BR-01, BR-03, BR-10
Other Information:	

Assumptions:	<ol style="list-style-type: none"> 1. The online system has a user profile module that securely stores and manages user profile information. 2. The user profile information is stored in a reliable and scalable database or data storage system. 3. The user interface of the online system provides a user-friendly and intuitive way for users to update their profile information. 4. The online system implements appropriate security measures, such as encryption and access controls, to protect user profile data from unauthorized access or tampering. 5. The online system performs validation checks on user-provided profile information to ensure data integrity and adherence to predefined rules. 6. The online system provides error handling mechanisms to handle any exceptions or unexpected scenarios that may occur during the profile update process. 7. The online system allows users to review their updated profile information before finalizing the changes. 8. The online system provides clear instructions and guidance to users on how to update their profile information. 9. The online system maintains a backup or revision history of user profile information, allowing for rollbacks or retrieval of previous versions if needed.
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2.8 Register

ID and Name:	UC-08 Register		
Created By:	Nguyen Trong Tung	Date Created:	06/03/2023

Primary Actor:	User	Secondary Actors:	Online shop
Description:	This use case describes the process of registering a new user in an online system. It enables individuals to create an account and provide necessary information to access and utilize the system's features and functionalities.		
Trigger:	Users indicate that they want to sign up for an account.		
Preconditions:	<p>PRE-1. The user has access to the shopping online system's registration interface.</p> <p>PRE-2. The user has a valid email address or other required credentials to complete the registration process.</p>		
Postconditions:	<p>POST-1. The user's account is successfully registered and activated in the online system.</p> <p>POST-2. The user can log in using the registered credentials and access the system's features and functionalities.</p>		

Normal Flow:	<ol style="list-style-type: none"> 1. The user accesses the registration interface of the online system. 2. The user enters the required registration information, such as username, email address, password, and any other mandatory fields. 3. The online system validates the provided information, checking for completeness, format, and uniqueness of email address and username. 4. If any validation errors occur, the online system displays appropriate error messages to the user, indicating the specific fields that require correction. 5. Once the provided information passes validation, the online system creates a new user account and stores the registration data in the system's database. 6. The online system generates a verification email or confirmation message and sends it to the user's provided email address. 7. The user receives the verification email and follows the instructions to verify their email address and activate the account. 8. The online system verifies the user's email address and updates the account status to "active" in the system. 9. The online system displays a confirmation message to the user, informing them that the registration process is complete. 10. The user can now log in using the registered credentials and access the features and functionalities of the online system.
Alternative Flows:	<ul style="list-style-type: none"> • If the user cancels the registration process, the online system discards the entered information, and no account is created. • If the user encounters any technical issues or errors during the registration process, the online system displays an error message and allows the user to retry or contact support for assistance.

Exceptions:	<ul style="list-style-type: none"> • If the user enters invalid or incomplete registration information, such as an invalid email format or a password that does not meet the system's requirements, the online system rejects the registration and prompts the user to correct the relevant fields. • If the user's entered email address or username already exists in the system, indicating a duplicate registration, the online system notifies the user and requests a different value. • If the user does not receive the verification email, the online system provides options for resending the email or contacting support for further
Priority:	High
Frequency of Use:	Approximately 50 times per week.
Business Rules:	BR-01, BR-03, BR-10
Other Information:	

Assumptions:	<ol style="list-style-type: none"> 1. The online system provides a registration functionality that allows users to create new accounts. 2. The registration process requires users to provide necessary information, such as username, email address, password, and any other mandatory fields. 3. The online system securely stores user registration data and encrypts passwords to protect user privacy and prevent unauthorized access. 4. The online system performs validation checks on user-provided registration data to ensure data integrity and adherence to predefined rules. 5. The online system has mechanisms in place to prevent duplicate registrations, such as checking if the email address or username already exists in the system. 6. The online system sends a verification email or confirmation message to the user to validate their email address and activate the account. 7. The user interface of the online system provides clear instructions and guidance to users on how to complete the registration process. 8. The online system implements appropriate security measures, such as captcha or anti-bot mechanisms, to prevent automated or malicious registrations. 9. The online system provides error handling mechanisms to handle any exceptions or unexpected scenarios that may occur during the registration process.
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2.9 Add Blogs

ID and Name:	UC-09- Add Blogs
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Created By:	Phan Thành Đạt	Date Created:	04/06/2023
Primary Actor:	Seller (or Admin)	Secondary Actors:	Customer
Description:	Sellers (or Administrators) access the Clothing Online Shop, add new blogs to the system by providing detailed blog information.		
Trigger:	Seller (or Admin) indicates a new blog to be added.		
Preconditions:	<p>PRE-1. Seller (or Administrator) is logged into the system.</p> <p>PRE-2. Sellers or Administrators have the necessary permissions to add products.</p>		
Postconditions:	<p>POST-1. New blogs are added to the system.</p> <p>POST-2. The changes made to the blog are reflected in the online shop.</p>		

Normal Flow:	<ol style="list-style-type: none"> 1. Seller (or Administrator) access to the Clothing Online Shop. 2. The system displays the interface to add blog 3. Seller (or Admin) provides detailed blogs information such as name, text content, images. 4. Seller (or Admin) confirms the addition of the blog. 5. The system checks the validity of the entered information. 6. The system updates information of blogs in the system. 7. The system displays a message confirming the successful addition of blog.
Alternative Flows:	<p>1.0 Seller (or Admin) did not provide enough details for the blog.</p> <p style="padding-left: 40px;">1.1 The system displays an error message asking the seller (or Administrator) to provide full information.</p> <p style="padding-left: 40px;">1.2 Go back to step 3 of the main thread.</p>

Exceptions:	<p>1.0.E1 The system detects that the provided blog information is invalid.</p> <p>1.1 The system informs the seller about the specific errors or missing information in the blog details.</p> <p>1.2 If the seller corrects the blog information, the use case continues with adding the blog.</p> <p>1.3 If the seller cancels the process of adding the blog, the use case is terminated.</p> <p>2.0.E2 System error:</p> <p>3.1 The system displays an error message notifying the seller about the issue and advises them to try again later.</p> <p>3.2 If the seller chooses to continue, they can retry the process. If the error persists, they may need to seek technical support.</p>
Priority:	High
Frequency of Use:	Approximately 1 times per month. The frequency of use of add blog will not happen very often, blog or collections are only released with very low frequency
Business Rules:	BR-01, BR-02, BR-03, BR-04, BR-08
Other Information:	<ol style="list-style-type: none"> Seller or Admin shall be able to cancel the Adding blog process at any time prior to confirming it. Seller or Admin shall be able to view blog posted by who.

Assumptions:	<ul style="list-style-type: none"> -The online shop system is accessible and functional. -Sellers/Administrators have valid user accounts and necessary permissions to add blog. -The online shop has sufficient storage capacity to accommodate new blog. -The product categories and attributes are predefined and available for selection during the blog addition process. -Sellers/Administrators are knowledgeable about the product addition process and have been trained on how to use the system effectively.

2.10 Add FeedBack

ID and Name:	UC-10- Add FeedBack
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Created By:	Phan Thành Đạt	Date Created:	04/06/2023
Primary Actor:	Customer	Secondary Actors:	Admin
Description:	This use case allows customer add feedback for specific product after purchase in the online shop		
Trigger:	customers indicate the intention to a product that they want to add feedback.		
Preconditions:	PRE-1. Customers are logged into the system. PRE-2. Customer bought the product want to add feedback		
Postconditions:	POST-1. The list feedback of the product is successfully updated with the new information. POST-2. The changes made of feedback are reflected in the online shop.		

Normal Flow:	<ol style="list-style-type: none"> 1. Customers access the add-on review after purchasing that product. 2. The system displays the interface to add feedback 3. Customer provides information text for feedback 4. Customer confirms the addition of the feedback. 5. The system checks the validity of the entered information. 6. The system updates information of feedback in the system. 7. The system displays a message confirming the successful addition of feedback
Alternative Flows:	<p>1.0 Customer provide empty details for the feedback.</p> <p> 1.1 The system displays an error message asking the customer to provide full information.</p> <p> 1.2 Go back to step 3 of the main thread</p>

Exceptions:	<p>1.0.E1 If there are errors or missing information in the entered data:</p> <ul style="list-style-type: none"> - The system displays error messages indicating the specific issues with the data. -Sellers or Administrators can correct the errors and resubmit the updated feedback information. -Return to step 6 of the normal flow. <p>2.0.E2 System error:</p> <ul style="list-style-type: none"> - The system displays an error message notifying the seller about the issue and advises them to try again later. - If the seller chooses to continue, they can retry the process. If the error persists, they may need to seek technical support.
Priority:	High
Frequency of Use:	Approximately 500 times per day. Customer can add feedback continuously after each purchase
Business Rules:	BR-01, BR-02, BR-03, BR-04, BR-08
Other Information:	1. Customer shall be able to view all feedback he add

Assumptions:	-The online shop system is accessible and functional. -Customers have valid user accounts and necessary permissions to add feedback.
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2.11 Search Products

ID and Name:	UC-11- Search Products		
Created By:	Tran Quang Ha	Date Created:	04/06/2023
Primary Actor:	Customers	Secondary Actors:	Products
Description:	This use case enables the user to search for products based on keywords.		
Trigger:	The user clicks on the search bar on the homepage or clicks on the search icon.		
Preconditions:	PRE - 1. The user has accessed the online shopping website and is on the homepage. PRE - 2. The database contains information about the products in the online store.		

Postconditions:	<p>POST - 1. When the user performs a successful search, the system will display a list of products related to the user's search keyword.</p> <p>Post - 2. If no results are found, the system will display a message indicating there are no matching products.</p>
Normal Flow:	<p>1.0 Search Product</p> <p>The user clicks on the search bar displayed on the homepage interface or clicks on the search icon.</p> <p>The user enters the search keyword in the search box provided and then presses Enter or clicks on the Search button.</p> <p>The system searches for products related to that keyword based on information stored in the database.</p> <p>The system displays a page with the search results. Each result includes a product name, image, brief description, price, and link to view further details about the product.</p> <p>The user can click on any of the products listed in the search results to view its full product description and additional details.</p> <p>If the user wants to refine their search, they can click on the search box again and enter a new keyword to search for.</p>

Alternative Flows:	<p>1: Not Found</p> <p>1.1: If there are no products that match the search keyword, the system will display a message "No matching products found". This message will be displayed on the search results page instead of the product listings.</p> <p>1.2: Go back to step 1 of the main thread.</p> <p>2: Invalid Search</p> <p>2.1. If the user enters an invalid search keyword or leaves the search box blank, the system will display a message prompting the user to enter a valid search term before executing the search.</p> <p>2.2. Go back to step 1 of the main thread.</p>
Exceptions:	<p>1.0.E1: Error System</p> <p>The server is down or offline, and the user cannot access the online shopping website.</p>
Priority:	Medium
Frequency of Use:	High
Business Rules:	BR-01, BR-03, BR-04, BR-09

Other Information:	<p>Searches may take longer if there are many products in the database.</p> <p>The search functionality supports partial matches on product names and descriptions.</p> <p>The search results page should display the total number of matching products found for the user's search.</p>
Assumptions:	<p>User input data is valid and does not contain any malicious code that could harm the system.</p> <p>The database is properly maintained and updated with accurate information about the products in the online store.</p> <p>The online store does not sell illegal or prohibited products.</p> <p>The online store has the necessary infrastructure and resources to handle a high volume of search queries.</p>

2.12 Remove Products

ID and Name:	UC-12- Remove Products		
Created By:	Tran Quang Ha	Date Created:	04/06/2023

Primary Actor:	Administrator	Secondary Actors:	Products
Trigger:	This use case describes the process of an admin user removing a product from an online shop.		
Trigger:	An admin user wants to remove a product from the online shop		
Preconditions:	<p>PRE - 1. The admin user is logged into their account.</p> <p>PRE - 2. The admin user has appropriate permissions to remove products.</p>		
Postconditions:	<p>POST - 1. The product is removed from the online shop.</p> <p>POST - 2. All associated data (e.g. reviews, ratings) for the product is also removed.</p> <p>POST - 3. Any customers who have purchased the product are notified.</p>		

Normal Flow:	<p>Admin login to the store's admin page.</p> <p>Admin user navigates to the product page they want to remove.</p> <p>Admin user clicks on the "Remove" button.</p> <p>System prompts the admin user with a confirmation message.</p> <p>Admin user confirms the removal request.</p> <p>System removes the product from the online shop.</p> <p>System displays a success message to the admin user.</p> <p>System notifies any customers who have purchased the product that it has been removed</p>
Alternative Flows:	<p>1: If the Shop Owner/Customer Service Representative wants to delete multiple products at once, they can use the system's bulk delete feature.</p> <p>2: If a product is in "on sale" or "out of stock", the Shop Owner/Customer Service Representative can switch to "suspended" instead of deleting the product</p>
Exceptions:	<p>1.0.E1: Not confirm remove Product</p> <p>1.1: If the admin user cancels the removal request at step 4.</p> <p>1.2: The system returns the admin user to the product page.</p> <p>2.0.E2: Permission</p> <p>2.1 If the admin user does not have appropriate permissions to remove products.</p> <p>2.2: The system displays an error message and does not allow the removal.</p>
Priority:	High

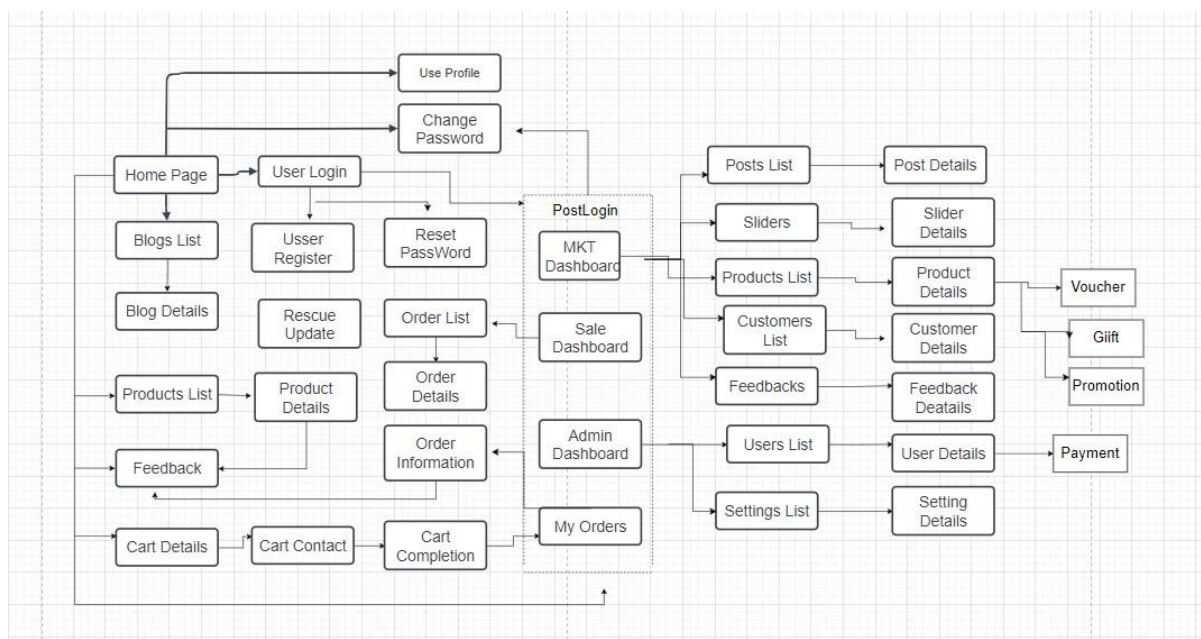
Frequency of Use:	About 60 products per week. Sellers or Admins can delete multiple products in a week to keep the online store's inventory and services up to date.
Business Rules:	BR-01, BR-02, BR-03, BR-04, BR-09
Other Information:	<ol style="list-style-type: none"> 1. Reason for product removal: When an online shop administrator performs a "remove product" function, they usually need to provide a reason for the removal. This helps the management and sales staff in the online shop to track and manage inventory more accurately. 2. Time to remove a product: Online store administrators often need to determine when to remove a product to ensure that it no longer appears on the website and database of the online shop. If the product has been removed but still appears on the website, it will affect the customer's shopping experience. 3. Product-related data: In the process of deleting a product, the online shop administrator needs to be interested in data related to that product, including the number of products left in stock, product list , suppliers, prices, detailed product information and customer reviews. This helps the online shop to manage inventory more accurately and easily.

Assumptions:	<ul style="list-style-type: none"> - The purpose of product removal is to keep the product listings efficient and not overwhelming. Online store administrators need to decide to remove products when they are no longer required or no longer effective for business. - Deleted products will no longer appear on the online shop's website and can only be accessed through the inventory management system. - Deleting a product will affect the online shop's inventory. Online store administrators need to be careful and consider other options such as discounting or reusing products to minimize waste.
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III. Functional Requirements

3.1. System Functional Overview

3.1.1 Screens Flow



3.1.2 Screen Descriptions

#	Feature	Screen	Description
1	Display featured products and blogs	Home screen	Products and blogs will be displayed on the home page at the discretion of the admin, this is done flexibly in accordance with the business.
2	Select product, blog that appears on the home screen	Manage data of home screen	Admin can optionally choose products , blogs will appear on the home page to suit the advertising strategy.
3	Create, Update, Delete product	Manage product	Admin can manage, add, edit, delete products efficiently
4	Display, search product by filter	Display product list	Customers can view products and search for products by filter effectively
5	Show detailed information of specific products	Detail product	Display detailed information of a product include feedback, in here,

			customers will be able to choose to add it to the cart
6	Create, Update, Delete blogs	Manage blog	Admin can manage the content of blogs (collections)
7	Display blog list	Display blog list	Customers can view blog, collections of brand
8	Show detailed information of specific blog	Detail blog	Customers can view the content, images and products of a particular blog, collections.
9	View cart	View cart	Customers can see the products they have added to the cart
10	Order products	Add order	Display the information of the bill for you to pay and confirm
11	Display list order	View list order	Seller and admin can see the orders to confirm
12	View information and confirm specific orders	Detail order	Seller and admin can view order status and confirm order
13	Check status of order	Status order	Customers can see their order status is confirmed or not

14	Add feedback	Add feedback	After purchase customers can add feedback for each product
15	Manage profile	Profile	User can update info of profile
16	Login, Register	Login, Register	User can create an account and login
17	Manager user	Manager user	Admin can manage account of customer

3.1.3 Screen Authorization

Screen	Customer	Seller	Amin	Marketing
Home	X	X	X	X
Manage data of home screen			X	X
Manage product		X	X	

Read product list	X	X	X	X
Detail product	X	X	X	X
Manage blog			X	X
Display blog list	X	X	X	X
Detail blog	X	X	X	X
View cart	X	X	X	X
Add order	X			
View list order		X	X	
Detail orders		X	X	

Status order	X	X	X	
Add feedback	X			
Profile	X	X	X	X
Login, Register	X	X	X	X
Manager user			X	

3.1.4 Screen Functions

#	Feature	System Function	Description
1	User Management	User Registration	Allows users to register an account for the online shop.
2	User Management	User Login	Enables users to log in to their accounts.
3	User Management	User Profile Management	Allows users to view and update their profile details.
4	Product Management	Product Catalog Management	Provides functionalities to manage the product catalog.

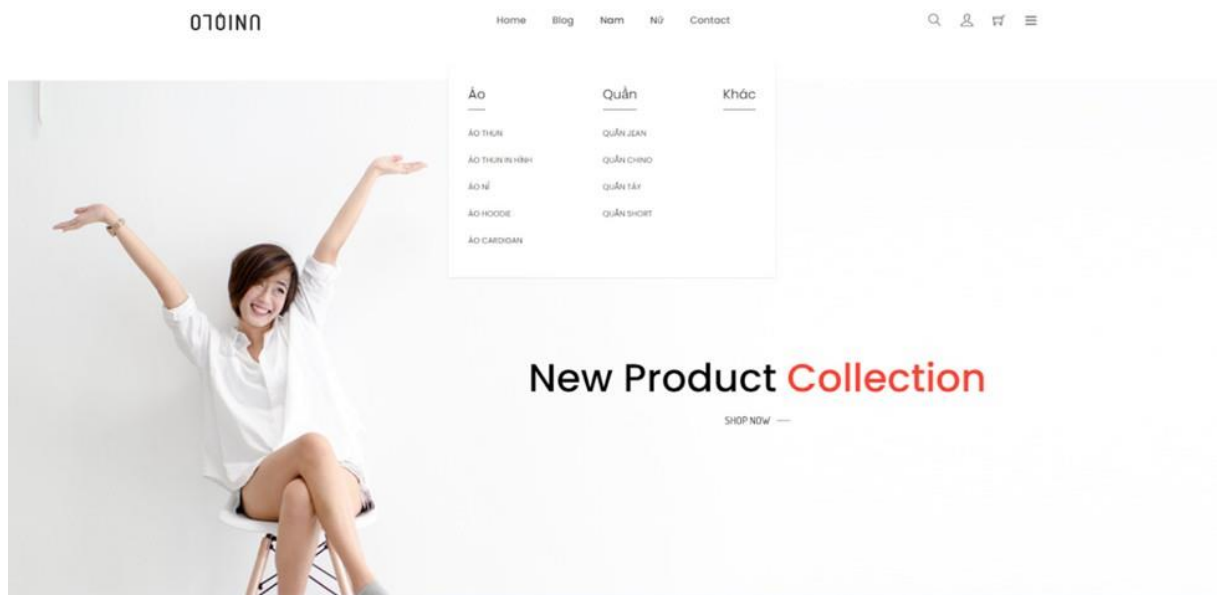
5	Product Management	Product Search	Enables users to search for products in the catalog.
6	Shopping Cart	Add to Cart	Allows users to add products to their shopping cart.
7	Shopping Cart	Remove from Cart	Enables users to remove products from the cart.
8	Shopping Cart	Update Cart Quantity	Allows users to update the quantity of products in the cart.
9	Order Management	Place Order	Enables users to place an order for selected products.
10	Order Management	Order Tracking	Provides functionality to track the status of orders.
11	Payment Gateway Integration	Payment Processing	Allows users to make secure payments for their orders.
12	Customer Support	Contact Support	Provides users with a means to contact customer support.
13	Customer Support	Help Center	Offers self-help resources and frequently asked questions.
14	Promotion Management	Coupon Code Management	Allows management of coupon codes for discounts.
15	Promotion Management	Discount Management	Provides functionalities to manage discounts on products.
16	Wishlist Management	Add to Wishlist	Enables users to add products to their wishlist.

#	Entity	Description
1	Users	Represents users of the website. This table stores information about registered users who have accounts on the website.
2	Roles	Defines user roles and permissions in the system. This table is used to manage different roles that users can have in the system, and it also determines the permissions associated with each role.
3	Categories	Represents categories or sections in the online shop. This table stores information about different categories that are used to organize products or services in the online shop.
4	SubCategory	Represents subcategories within the main categories. This table is used to further categorize products or services within the main categories defined in the "Categories" table.
5	Products	Represents products available for purchase on the website. This table stores information about individual products, such as their names, descriptions, prices, and other relevant details.
6	ImageProducts	Stores images associated with products. This table is used to store images related to each product in the "Products" table.
7	Payments	Manages payment methods and transactions for orders. This table is responsible for managing various payment methods available to users and keeping track of payment transactions for orders.
8	Transports	Manages shipping and delivery methods for orders. This table handles the different shipping and delivery options available for orders placed by users.
9	Addresses	Stores user addresses for shipping and billing purposes. This table stores addresses provided by users for shipping and billing purposes during the order process..
10	Bills	Manages billing information for orders. This table is used to store billing information associated with each order, such as total amounts, taxes, and other relevant billing details.
11	UserClaims	Stores additional claims or attributes related to user accounts. This table allows storing additional information or attributes associated with user accounts, which can be used for customization or authorization purposes.
12	UserLogins	Tracks user login information for authentication. This table keeps track of user login attempts, login timestamps, and other related authentication information.

13	UserRoles	Maps user accounts to their respective roles. This table establishes a mapping between user accounts and the roles they have in the system.
14	UserTokens	Stores tokens used for user authentication and authorization. This table is used to store tokens that are generated for user authentication and authorization purposes.
15	Feedbacks	Allows users to submit feedback or reviews for products or services. This table enables users to provide feedback, ratings, or reviews for products or services offered on the website.
16	Blogs	Represents blog posts on the online shop. This table stores information about blog posts, such as their titles, contents, authors, and publication dates.
17	ImageBlogs	Stores images associated with blog posts. This table is used to store images that are related to the blog posts stored in the "Blogs" table.
18	RoleClaims	Stores additional claims or attributes related to user roles. This table allows storing additional information or attributes associated with user roles for customization or authorization purposes.
19	BillDetails	Stores detailed information about individual items in an order. This table stores detailed information about each item included in an order, such as product IDs, quantities, prices, and other order-specific details.
20	ProductDetails	It serves as a supplementary table that holds detailed attributes and characteristics of each product, enhancing the level of information provided to users.
21	Cart	The "Cart" table enables users to add products, adjust quantities, and remove items, making it a crucial component for a seamless shopping experience.
22	CartItem	The "CartItem" table plays a vital role in providing users with granular control over their selections, enabling them to review, modify, and finalize their orders before checkout.
23	_efmigrationhistory	It contains a unique MigrationID and ProductVersion, allowing EF to manage and apply database schema changes efficiently. Developers typically do not interact with this table directly as EF handles it automatically to synchronize the database schema with the application's data model during migrations.

3.3.1 Home page

3.3.1.1 Product Category



- Function trigger: The Product Category function is triggered when an end-user(Customers) enters the website. They will be led to the Home Page where this function is placed.

- Function description;
- Actors:
 - Customers: Primary users of the online shop web. They use the product category function to browse and filter products based on their preferences and needs.

- System: The online shopping system

- Purpose: The Product Category provides a way for customers to browse and filter products based on their preferences and needs. By organizing products into categories, customers can easily find the products they are looking for and discover new products that may interest them based on their categories choosed

- Interface: The Product Category provides the following features and sections:

- Category List: Provide a list of product categories, the table includes some general information of the category of the product that the website is currently selling.

- Data processing:

- The Product Category retrieves and displays relevant data from the system's database, such as product categories
- Customers can select a product category or apply a filter, the website retrieves the relevant product data from the database or data storage system.

- Function details:

- Data: The Product Category feature requires data such as category name, category description, category image, category ID, product name, product description, product image, product ID, product price, product attributes, and product inventory. These data are stored in a database or data storage system and are used to organize and display the product catalog.

- Validation: The Product Category feature should include validation checks to ensure that the data entered by the website administrator is accurate and complete. For example, the system should prevent the creation of duplicate categories or products, and ensure that all required fields are filled out before the data is saved.

- Business Rules: The Product Category feature should follow certain business rules to ensure that the product catalog is organized and displayed in a way that makes sense to customers.

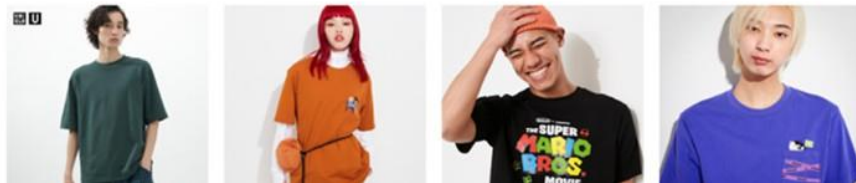
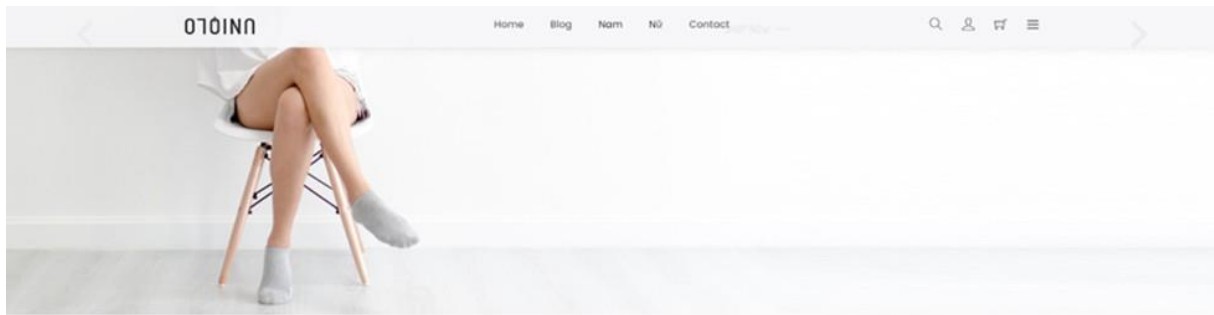
- Functionality:

- In a normal case, the Product Category feature allows the website administrator to create, edit, and delete categories, assign products to categories, and manage product inventory. Customers can filter and sort products by category, search for products by name or keyword, and view related products on category pages.

- In an abnormal case, the Product Category feature may encounter errors such as invalid data, database connection errors, or server errors. The system should provide error messages that explain the issue and provide guidance on how to fix it.

- The system should have backup and recovery mechanisms in place to ensure that data is not lost in case of a system failure or data corruption.

3.3.1.2 Home Page Product



- Function trigger: The Home Page Product function is triggered when a customer visits the website's home page. The Home Page Product function is triggered every time a customer visits the website's home page

- Function description:

- Actors:

- Customers use the Home Page Product function to browse and discover new products,

- Website administrators are responsible for managing the product catalog and ensuring that product information is accurate and up-to-date.

- Purpose: The purpose of the Home Page Product function is to showcase featured products, new arrivals, and promotions to customers and help them discover new products that may interest them.

- Interface: The interface for the Home Page Product function typically includes a product carousel or grid, which displays featured products, new arrivals, and promotions. The system may also display product images, product names, and product prices to entice customers to click on the products.

- Data processing:

- The data processing for the Home Page Product function involves retrieving product data from the database or data storage system and displaying it on the website's home page.

- The system may also use algorithms to recommend products based on the customer's browsing history or purchase history.

- Function details:

- Data: The Home Page Product function requires data such as product name, product description, product price, product image, and product inventory.

These data are stored in a database or data storage system and are used to display products on the website's home page.

- **Validation:** The Home Page Product function should include validation checks to ensure that the product data displayed on the website is accurate and up-to-date.

- **Business Rules:** The Home Page Product function should follow certain business rules to ensure that the product information is displayed in a way that makes sense to customers. For example, the system should display featured products, new arrivals, and promotions prominently on the home page, and provide an intuitive and user-friendly way for customers to browse and discover new products.

- **Functionality:**

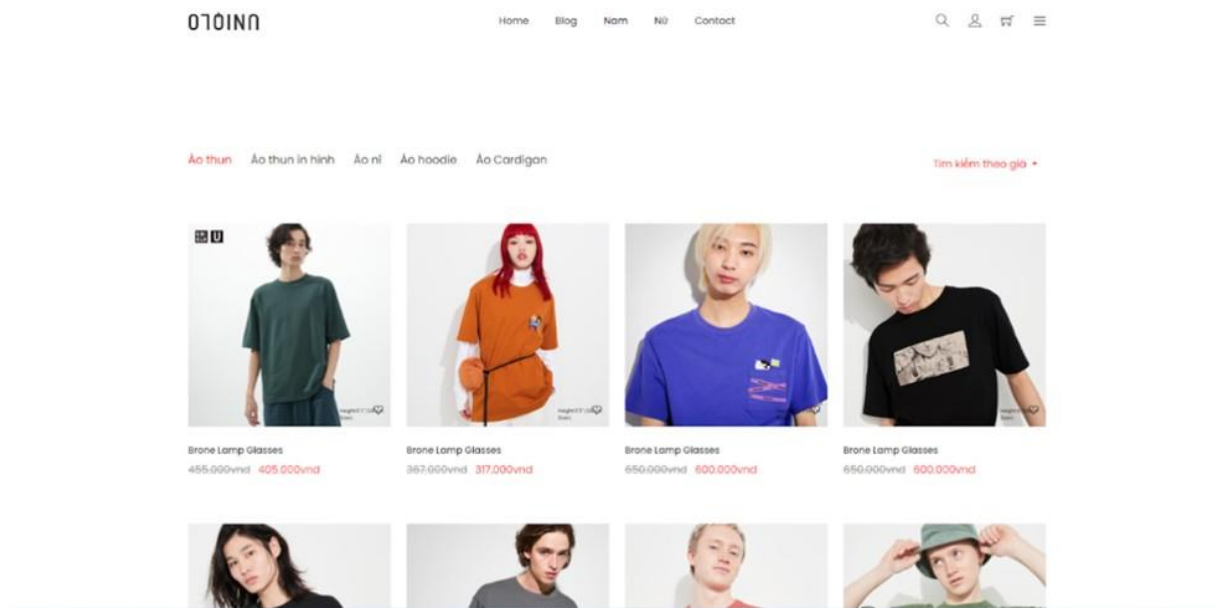
- In a normal case, the Home Page Product function allows customers to browse and discover new products, view featured products, new arrivals, and promotions, and click on products to view their details.

- In an abnormal case, the Home Page Product function may encounter errors such as invalid data, database connection errors, or server errors. The system should provide error messages that explain the issue and provide guidance on how to fix it.

- The system should have backup and recovery mechanisms in place to ensure that data is not lost in case of a system failure or data corruption.

3.3.2 Product page

3.3.2.1 Show product



- Function trigger: The Show Product function is triggered when a customer clicks on a product from a category page. The Show Product function is triggered on demand whenever a customer clicks on a product to view its details.

- Function description:

- Actors:

- Customers use the Show Product function to view the details of a product, such as its description, price, images, and reviews.

- Website administrators are responsible for managing the product catalog and ensuring that product information is accurate and up-to-date.

- Purpose: The purpose of the Show Product function is to provide customers with detailed information about a product and help them make informed purchasing decisions.

-

- Interface: The interface for the Show Product function typically includes a product image, product name, product description, product price, product reviews, and related products. These elements provide customers with an intuitive and user-friendly way to view and compare product details.

- Data processing:

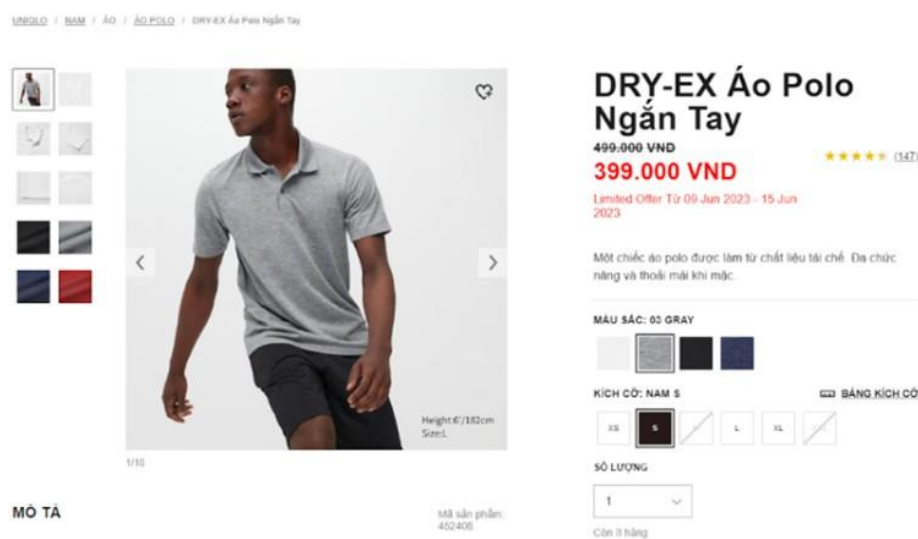
- The data processing for the Show Product function involves retrieving product data from the database or data storage system and displaying it on the website.

- The system may also retrieve related products to display on the product page.

- Function details:

- **Data:** The Show Product function requires data such as product name, product description, product price, product image, product reviews, and related products. These data are stored in a database or data storage system and are used to display product details on the website.
- **Validation:** The Show Product function should include validation checks to ensure that the product data displayed on the website is accurate and up-to-date. For example, the system should ensure that the product price and inventory levels are correct.
- **Business Rules:** The Show Product function should follow certain business rules to ensure that the product information is displayed in a way that makes sense to customers.
- **Functionality:**
 - In a normal case, the Show Product function allows customers to view the details of a product, including its name, description, price, images, and reviews. The system may also display related products to help customers discover new products that may interest them.
 - In an abnormal case, the Show Product function may encounter errors such as invalid data, database connection errors, or server errors. The system should provide error messages that explain the issue and provide guidance on how to fix it.
 - The system should have backup and recovery mechanisms in place to ensure that data is not lost in case of a system failure or data corruption.

3.3.2.2 Detail product



- Function trigger: The Detail Product function is triggered when a customer clicks on a product from a category page or search results page.

- Function description;

- Actors:

- Customers use the Detail Product function to view the details of a product, such as its description, price, images, and reviews.

- Website administrators are responsible for managing the product catalogue and ensuring that product information is accurate and up-to-date.

- Purpose: The purpose of the Detail Product function is to provide customers with detailed information about a product and help them make informed purchasing decisions.

- Interface: The interface for the Detail Product function typically includes a product image, product name, product description, product price, product reviews, and related products. These elements provide customers with an intuitive and user-friendly way to view and compare product details.

- Data processing:

- The data processing for the Detail Product function involves retrieving product data from the database or data storage system and displaying it on the website.

- The system may also retrieve related products to display on the product page.

- Function details:

- Data: The Detail Product function requires data such as product name, product description, product price, product image, product reviews, and related products. These data are stored in a database or data storage system and are used to display product details on the website.

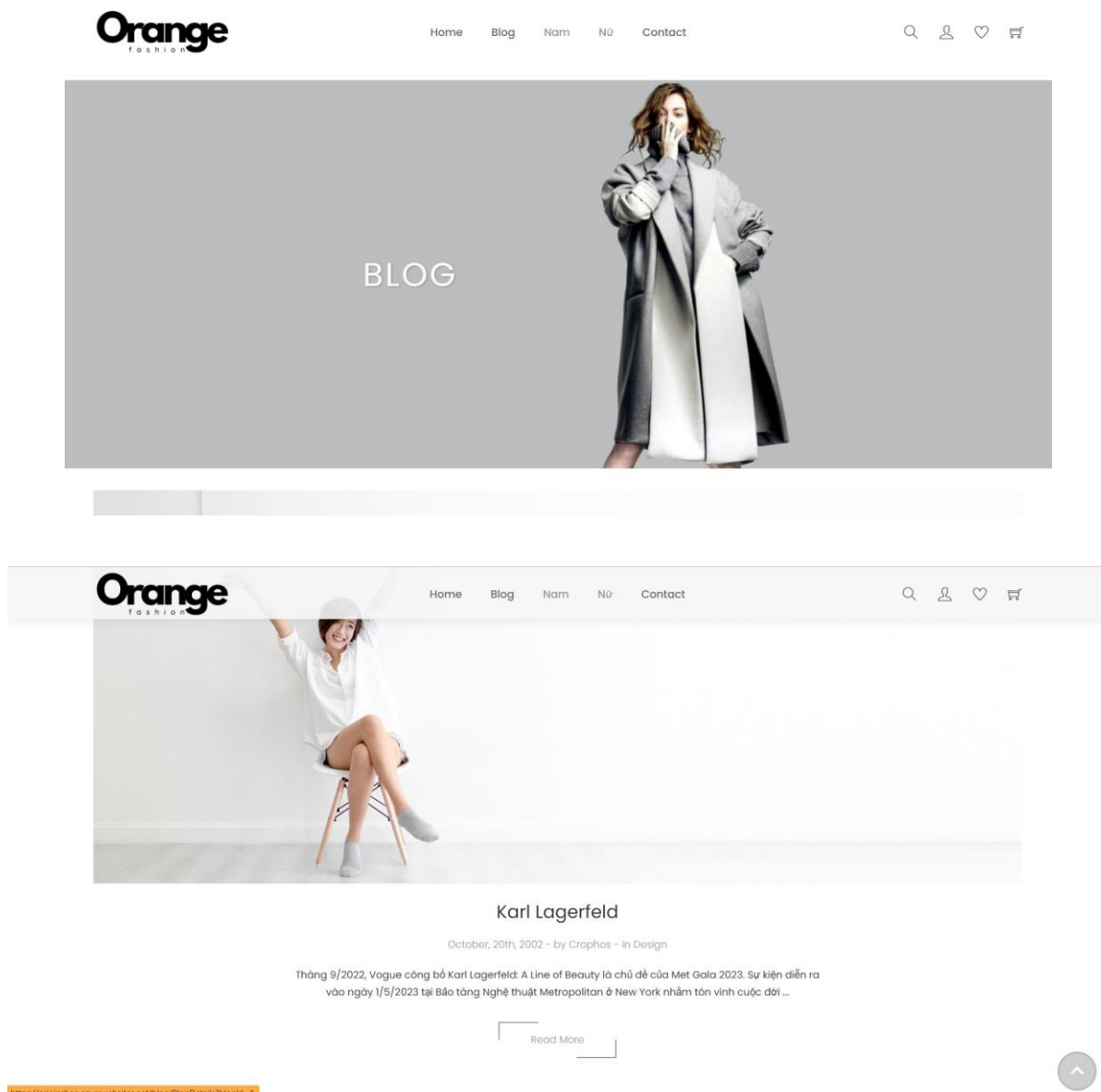
- Validation: The Detail Product function should include validation checks to ensure that the product data displayed on the website is accurate and up-to-date. For example, the system should ensure that the product price and inventory levels are correct.

- Business Rules: The Detail Product function should follow certain business rules to ensure that the product information is displayed in a way that makes sense to customers. For example, the system should display the product name and image prominently at the top of the page, followed by the product description and other details.

- Functionality:

- In a normal case, the Detail Product function allows customers to view the details of a product, including its name, description, price, images, and reviews. The system may also display related products to help customers discover new products that may interest them.
- Abnormal case functionalities: In an abnormal case, the Detail Product function may encounter errors such as invalid data, database connection errors, or server errors. The system should provide error messages that explain the issue and provide guidance on how to fix it.
- The system should have backup and recovery mechanisms in place to ensure that data is not lost in case of a system failure or data corruption.

3.3.3 Blog



- Function trigger: Blog Details function is used when users log into their account and visit blogs of sales websites.

- Function description;

- Actor/Role:

- User : View information, read articles and can become potential customers of the store, users will be provided with full information about the product, answer questions and give useful advice. to help shoppers make the right purchasing decisions

- System: Online shopping system

- Purpose: Provide shoppers with useful information and help them make the right purchasing decisions, while helping your online store increase credibility and sales.

- Interface: In the Blogs Details page provide the following features and sections:

- Search: A search function should be introduced so that customers can easily search for articles on the site.

- Related Products: Related products should be featured so that customers can learn more about the store's other products

- Content: The content of the detailed blog page should be written in a clear, understandable and attractive way to capture the reader's interest.

- Images: Images of products or services should be attached to help readers have a clearer view of the product.

- Tags: Tags should be given to help customers easily find articles related to the topic they are interested in.

- Data processing:

- The process of collecting, checking, formatting, storing, securing and updating information to ensure that the information displayed on the website is accurate, reliable and safe.

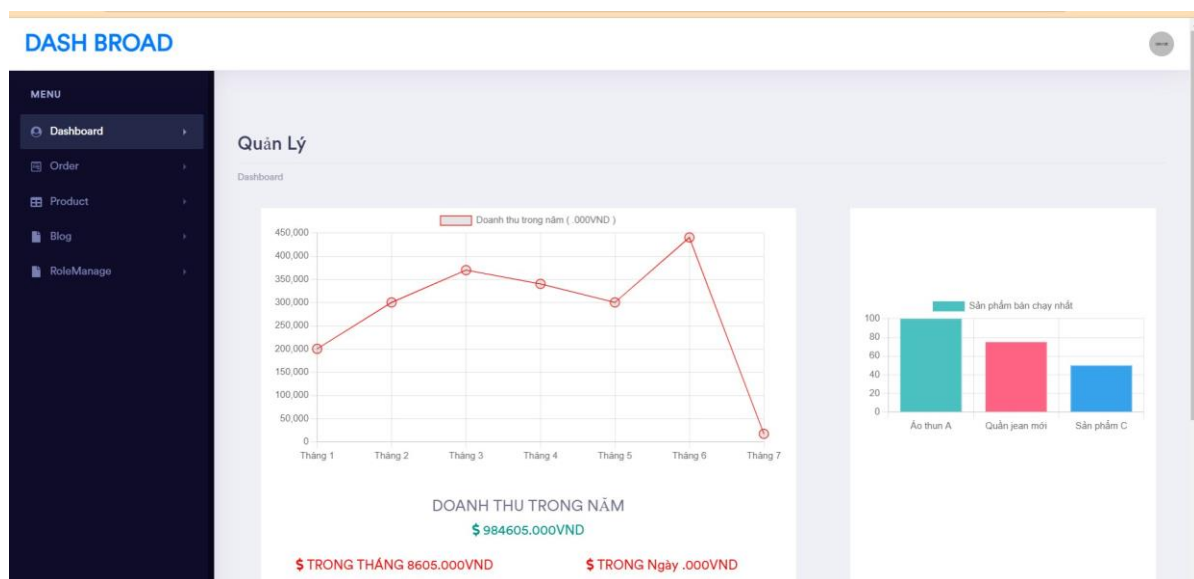
- Function details:

- Data: This function is based on the availability of product data stored in the system's database, including product information, articles, images, reviews, comments, and other information. product related information.

- Validation: The process of checking the validity of data on a website. This process includes checking the accuracy, completeness and validity of product information, articles, images, reviews, comments and other product related information.

- Business rules: This function follows the business rules related to customer support rules, information security rules, pricing rules to create a reputable environment for customers with webpage.
- Function:
 - The blogs details page provides detailed product information, customer reviews and comments. This information helps customers get an overview of the product and decide to buy the right product for their needs. In addition, the blogs details page also helps create interaction between customers and the website, thereby helping the website improve the quality of products and services.
 - If there is a technical problem or data retrieval error, the system may display an error message and prompt the user to try again later.

3.3.4 Admin dashboard



- FunctionTrigger: The E-Commerce Dashboard function is activated when a Registered Administrator logs in to their account and accesses the admin area.
- Function description;
- Actor:
 - Admin: Track the amount of money sold in a certain period of time, thereby evaluating the effectiveness of marketing campaigns, best-selling products and the business situation of the store.
 - System: Online shopping system.

- Purpose: To provide information related to the store's sales including the number of products sold, the amount collected from the order, and the costs related to sales activities. With this information, the administrator can evaluate the store's business performance, find ways to optimize costs and revenue, and then make reasonable business decisions to achieve the store's goals.

- Interface: The eCommerce dashboard offers the following features and sections:

- Revenue tracking: Admin can track the total revenue, the amount received from the order, the operating expenses and the profit of the store.

- Product table: Provides a list of the most recently tracked products, the table includes product name, selling price, quantity sold and stock status.

- Data processing:

- The e-commerce dashboard collects data from a variety of sources, including customer information, order information, product information, and business metrics. Once collected, the data will be processed and converted into a suitable format for the purpose of the target analysis.

- Function Details:

- Data: This functionality relies on a secure and reliable database to protect customer data and avoid the risk of attacks. Sensitive information such as usernames, passwords, account information, etc. need to be encrypted to protect them from being stolen.

- Validation: Measures to ensure the safety of the management system include authenticating the admin account, assigning access rights, logging the system, using encryption, and checking input data. All these measures are aimed at minimizing the risk of security holes and avoiding unnecessary actions on the part of the admin.

- Business Rules: Functions that follow business rules set forth by the platform, such as business management and monitoring principles, and analysis and decision making on appropriate business strategies

- Function:

- If there is a technical problem with the dashboard, the admin will receive the error message and guide everyone to fix the problem. This is an important function to ensure that everyone can continue on the platform efficiently and without interruption.

- In addition, the admin is also responsible for managing people's accounts on the platform. If an account is suspended or flagged for violating platform policies, the admin will restrict or prevent access to the Dashboard. This helps to ensure that business activities on the platform are carried out in accordance with the regulations and policies of the platform.

3.3.5 User detail

Tên user	Vai trò (role)	Tác vụ
cauchunso2002@gmail.com	Admin	Đặt mật khẩu
rl@gmail	+ Thêm role	Đặt mật khẩu
dat0947048768@gmail.com	Marketing,Admin,Seller	Đặt mật khẩu
datpthe163028@fpt.edu.vn	Marketing	Đặt mật khẩu
fds@gmail.com	+ Thêm role	Đặt mật khẩu
linhndm3@fe.edu.vn	+ Thêm role	Đặt mật khẩu
manhlinh.nguyendinh@gmail.com	+ Thêm role	Đặt mật khẩu
minhdnhe161535@fpt.edu.vn	+ Thêm role	Đặt mật khẩu
moonno9910@gmail.com	+ Thêm role	Đặt mật khẩu
nguyenphog1412@gmail.com	Marketing,Admin,Seller	Đặt mật khẩu

- Function trigger: The User details function is activated when a registered administrator logs in to their account and accesses the user management area.

- Function description;
- Actor:
 - Admin: Manage all customer information and activities to ensure the most effective and profitable trading.
 - System: Online shopping system
- Purpose: The purpose of this function is to allow the administrator to manage the users present on the online store.
 - Interface: Manager User provides the following features and sections:
 - User Account Management: Administrators can view a list of user accounts, including personal information, addresses, and activity status.
 - User Search: Allows admin to search for users by keywords such as name, email or phone number..
 - User statistics: Displays the total number of registered users in the system to help admins monitor and manage better.
- Data processing:
 - When a user registers an account, information about name, email, phone number, address and account status is collected and stored in the database.

- Admin can view or edit user information, lock or unlock accounts, add new users or remove users from the system. Each of these requests will be handled by retrieving data from the database and performing the corresponding operations.

- Function Details:

- Data: The functionality relies on user data stored in the system's database, including customer information, product details, and operational status.

- Validation: The system verifies the integrity of the retrieved data, ensuring that the data is complete and correct to the user.

- Business Rules: Functions that comply with business rules regarding user account management and tracking, customer privacy, and user status updates.








- Function: When the admin chooses to view user account information, additional information will be displayed such as delivery address, order shipping status. Besides, there are accounts that will be locked for violating community standards (made by admin). Administrator will update the Active account status to Block. After a period of time, if the user does not try to unlock the account, the account will be deleted from the user management page.

3.3.6 Product detail

DASH BROAD

Dashboard > List all product



Product Name [Add New Product](#)

Id	Product Name	Main Image	Unit Price	Date	Home status	Actions
1	Áo thun spima		455	Friday, 05 May 2023	<input checked="" type="checkbox"/> Enable	viewDetail update Delete
2	Áo thun DBZ		367	Friday, 05 May 2023	<input checked="" type="checkbox"/> Enable	viewDetail update Delete
3	Áo thun Mario		350	Friday, 05 May 2023	<input checked="" type="checkbox"/> Enable	viewDetail update Delete
4	Áo thun cá tròn		650	Friday, 05 May 2023	<input checked="" type="checkbox"/> Disable	viewDetail update Delete
5	Áo thun ngìn tay		650	Friday, 05 May 2023	<input checked="" type="checkbox"/> Enable	viewDetail update Delete
19	Áo thun ngìn tay		650	Friday, 05 May 2023	<input checked="" type="checkbox"/> Enable	viewDetail update Delete
20	Áo thun ngìn tay		555	Friday, 05 May 2023	<input checked="" type="checkbox"/> Enable	viewDetail update Delete

- Function Trigger: The Product Details function is activated when a registered administrator logs in to their account and accesses the product management area.

- Function description;
- Actor:
 - Admin: Manage all information and status of uploaded products to ensure product information capture.
 - System: Online shopping system
- Purpose: The purpose of this function is to allow administrators to view and manage the products that are updated and available in the online store.
- Interface: User Manager provides the following features and sections:
 - Product management: Admin can see a list of product information including name, id, price, product update time and who put the product on the system
 - Product statistics: Displays all products for sale sorted by time to help administrators track and manage better.
- Data processing:
 - When the product seller puts the products on the system, the information will be stored in the Product Details page of the administrator for the purpose of managing the products to put on the sales website.
 - Admin can view or edit product information. Each of these requests will be handled by retrieving data from the database and performing corresponding operations.
 - Administrators can delete substandard products, prohibited items that affect the business process. Locked sales accounts will not be able to update products for sale.
- Function details:
 - Data: This function is based on product data stored in the system's database, including seller information, product details, and product delivery time.
 - Validation: The system verifies the integrity of the data retrieved, ensuring that the data is complete and correct by the administrator and the merchant.
 - Business rules: The functions comply with business rules related to product management and tracking, product standards for sale so that the products sold do not violate the rules related to product trading. Products .
 - Function: When the admin chooses to view product information, it will display additional information such as name, image, product function, seller's sales license to be able to ensure product quality. If the product does not meet the requirements, the administrator will delete the product and ask the seller to clearly review the sales rules so that the product can be sold clearly.

3.3.7 Cart

IMAGE	PRODUCT	PRICE	QUANTITY	TOTAL	REMOVE
	Vestibulum suscipit	£165.00	<input type="text" value="1"/>	£165.00	X
	Vestibulum dictum magna	£50.00	<input type="text" value="1"/>	£50.00	X

- Function Trigger: The Cart function is triggered when a user interacts with the shopping cart feature on the online shopping system, such as adding products, updating quantities, removing items, or initiating the checkout process.

- Function Description:

- Actors/Roles:

- User: The individual browsing the online shopping system and adding products to their cart.

- System: The online shopping system.

- Purpose: The purpose of the Cart function is to enable users to collect and manage the products they wish to purchase before proceeding to the checkout process.

- Interface: The Cart function provides the following features and elements:

- Cart Icon/Link: A visual indicator or link, typically located in the header or navigation, that allows users to access their cart.

- Cart Page/Drawer: The page or overlay that displays the contents of the cart, including a list of added products, their quantities, prices, and subtotals.

- Product Quantity Controls: Controls or input fields that enable users to update the quantity of a specific product in the cart.

- Remove Item Option: An option or button that allows users to remove a product entirely from the cart.

- **Cart Summary:** A summary section displaying the total number of items in the cart, the total price, applicable discounts or promotions, and any additional fees (e.g., shipping, taxes).

- **Data Processing:**

- The Cart function interacts with the system's database to retrieve and update the cart data.

- It performs operations such as adding products, updating quantities, and removing items, while maintaining the consistency and accuracy of the cart information.

- **Function Details:**

- **Data:** The function relies on the availability of product data stored in the system's database, including information such as names, prices, stock levels, and product identifiers.

- **Validation:** The system validates user actions to ensure the integrity of the cart data, verifying product availability, valid quantities, and appropriate updates.

- **Business Rules:** The function follows business rules related to cart behavior, such as maximum item quantities, promotional eligibility, and cart persistence (retaining the cart contents across sessions).

- **Functionality (Normal Case):**

- Users can add products to the cart by clicking an "Add to Cart" button or similar action on product pages.

- The Cart function updates the cart display, showing the added products, their quantities, prices, and subtotals.

- Users can adjust quantities, remove items, and view the updated cart summary.

- **Functionality (Abnormal Cases):**

- If a product becomes unavailable or out of stock after adding it to the cart, the system may display an error message or automatically adjust the quantity.

- If there are technical issues or data retrieval errors, the system may display an error message and prompt the user to try again later.

3.3.8 Payment



- **Function Trigger:** The Shopping Cart Payment function is triggered when a user initiates the checkout process from the cart page, indicating their intention to make a payment for the selected items.

- **Function Description:**
- **Actors/Roles:**
- **User:** The individual who has added items to their cart and intends to proceed with the payment.
- **System:** The online shopping system.

- **Purpose:** The purpose of the Shopping Cart Payment function is to facilitate the payment process for the selected items in the user's cart, allowing them to complete their purchase.

- **Interface:** The Shopping Cart Payment function provides the following elements and interactions:

- **Payment Options:** Presents the available payment methods to the user, such as credit/debit card, PayPal, or other supported payment gateways.

- **Billing and Shipping Information:** Collects the user's billing and shipping details, including name, address, contact information, and any special instructions.

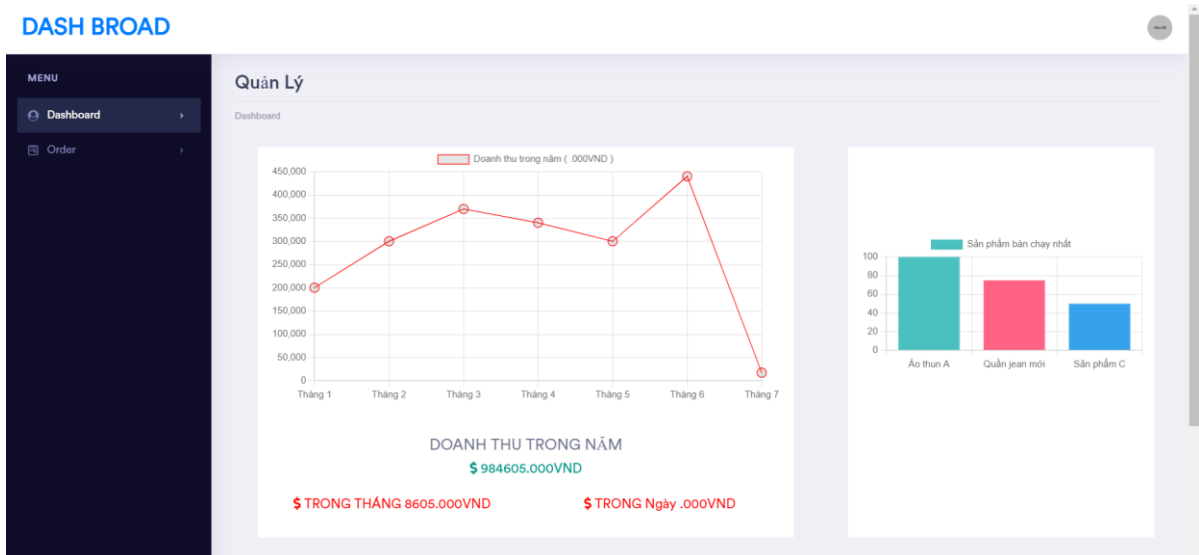
- **Order Summary:** Displays a summary of the selected items from the cart, their quantities, prices, applicable discounts, taxes, and any additional fees (e.g., shipping).

- **Payment Form:** Prompts the user to enter their payment details, such as credit card information or login credentials for a selected payment gateway.

- **Confirmation and Order Placement:** Provides confirmation of the payment transaction, generates an order number, and directs the user to an order confirmation page.

- Data Processing:
 - The Pay in Cart function securely handles the user's payment data and interacts with the chosen payment gateway or financial institutions for transaction processing.
 - It also updates the order and inventory information in the system's database based on the completed payment.
- Function Details:
 - Data: The function requires access to the user's cart data, including the selected items, quantities, and prices, along with the user's billing and shipping information.
 - Validation: The system validates the entered payment details, such as credit card numbers, to ensure their accuracy and completeness.
 - Business Rules: The function adheres to business rules and payment policies related to payment gateways, transaction security, and financial regulations.
 - Functionality (Normal Case):
 - Users select a preferred payment method from the available options.
 - They enter their billing and shipping information, ensuring its accuracy and completeness.
 - The system displays an order summary for review before proceeding to payment.
 - Users enter their payment details securely into the provided payment form.
 - The Pay in Cart function processes the payment transaction through the selected payment gateway.
 - Upon successful payment, the system generates an order confirmation, assigns an order number, and updates the inventory accordingly.
 - Functionality (Abnormal Cases):
 - If the payment transaction fails, the system provides an appropriate error message and allows the user to try again or choose an alternative payment method.
 - In the event of technical issues during payment processing, the system may display an error message and prompt the user to attempt the payment later or contact customer support.

3.3.9 Seller dashboard



- Function trigger: The Seller Dashboard function is triggered when a registered seller logs into their account and accesses the seller's administrative area.

- Function description;
- Actors:
 - Seller: The individual or business entity who is registered as a seller on the online shopping platform.
 - System: The online shopping system

- Purpose: Seller dashboard provides sellers with a centralized interface to manage products, sales for the month

- Interface: The Seller Dashboard provides the following features and sections:

- Sales Analytics: Offers insights into sales performance, including revenue, order volume, popular products, and customer behavior. It include charts, graphs, and reports to help sellers analyze and optimize their sales strategies.

- Product table: Provide a list of products sold in the month, the table includes product name, selling price, quantity sold and stock status.

- Data processing:
 - The Seller Dashboard retrieves and displays relevant data from the system's database, such as product information, sales analytics.

- Sellers can make updates or changes to the data through the dashboard, which are processed and stored in the system's database.

- Function details:

- **Data:** The function relies on a secure and reliable database to store and retrieve seller-related data, such as products, inventory, orders, and sales analytics.
- **Validation:** The system validates the inputs provided by the seller, ensuring that mandatory fields are filled correctly and that appropriate data formats are used.
- **Business Rules:** The function follows business rules set by the platform, such as product listing guidelines, order processing timelines, and seller performance metrics.
- **Functionality:**
 - If there are technical issues with the dashboard, the system displays an error message and encourages the seller to try again later.
 - If the seller's account is suspended or flagged for violating platform policies, access to the Seller Dashboard may be restricted or limited.

3.3.10 Recent order

DASH BROAD

MENU

- Dashboard
- Order

Search Order [Add New Order](#)

[Confirm All](#)

Order#	UserName	Status	Total	Date	Address	ViewDetail	Actions
<input type="checkbox"/> 77	nguyenphog1412@gmail.com	ĐÃ ĐẶT HÀNG	455	7/5/2023 12:00:00 AM	1 Main St , San Jose, CA, 95131, US	View Detail	Confirm
<input type="checkbox"/> 78	nguyenphog1412@gmail.com	ĐÃ ĐẶT HÀNG	367	7/5/2023 12:00:00 AM	nguyenphog1412@gmail.com	View Detail	Confirm
<input type="checkbox"/> 79	nguyenphog1412@gmail.com	ĐÃ ĐẶT HÀNG	455	7/5/2023 12:00:00 AM	hoàng mầu, Thị trấn Đồng Văn, Huyện Đồng Văn, Tỉnh Hà Giang	View Detail	Confirm
<input type="checkbox"/> 86	dat094704876@gmail.com	ĐÃ ĐẶT HÀNG	910	7/6/2023 12:00:00 AM	so 6, Phường Giang Biên, Quận Long Biên, Thành phố Hà Nội	View Detail	Confirm
<input type="checkbox"/> 87	dat094704876@gmail.com	ĐÃ ĐẶT HÀNG	455	7/6/2023 12:00:00 AM	Số nhà 6, Phường Đồng Xuân, Quận Hoàn Kiếm, Thành phố Hà Nội	View Detail	Confirm
<input type="checkbox"/> 88	dat094704876@gmail.com	ĐÃ ĐẶT HÀNG	455	7/6/2023 12:00:00 AM	Số nhà 6, Phường Đồng Xuân, Quận Hoàn Kiếm, Thành phố Hà Nội	View Detail	Confirm
<input type="checkbox"/> 90	aerhaerh	ĐÃ ĐẶT HÀNG	3303	7/8/2023 12:00:00 AM	123 Thomson Rd., , Singapore, , 308123, SG	View Detail	Confirm
<input type="checkbox"/> 91	nguyenphog1412@gmail.com	ĐÃ ĐẶT HÀNG	350	7/11/2023 12:00:00 AM	1 Main St , San Jose, CA, 95131, US	View Detail	Confirm

- **Function Trigger:** The Recent Orders function is triggered when a seller accesses the Seller Dashboard or navigates to the "Recent Orders" section within the dashboard.
- **Function Description:**
- **Actors/Roles:**
 - **Seller:** The registered seller who is logged into their account and using the Seller Dashboard.
 - **System:** The online shopping system.

- **Purpose:** The purpose of the Recent Orders function is to provide sellers with a quick overview of the most recent orders placed by customers, allowing them to track and manage the latest transactions.

- **Interface:** The Recent Orders section within the Seller Dashboard provides the following information:

- **Order List:** Displays a list of the most recent orders, typically including order numbers, customer names, order dates, and order status.

- **Order Details:** When a seller selects a specific order from the list, more detailed information is displayed, such as the customer's contact details, shipping address, estimated delivery time, shipping by, shipping status, order items, quantities, prices, and payment status.

- **Data Processing:**

- The Recent Orders function retrieves order data from the system's database based on the seller's account.

- The system processes the data to generate the list of recent orders and associated details, ensuring that it is up to date and accurate.

- **Function Details:**

- **Data:** The function relies on order data stored in the system's database, which includes information such as order numbers, customer details, order items, quantities, prices, and payment statuses.

- **Validation:** The system validates the integrity of the retrieved data, ensuring that it is complete and accurate.

- **Business Rules:** The function adheres to business rules related to order processing, order status updates, and customer privacy.

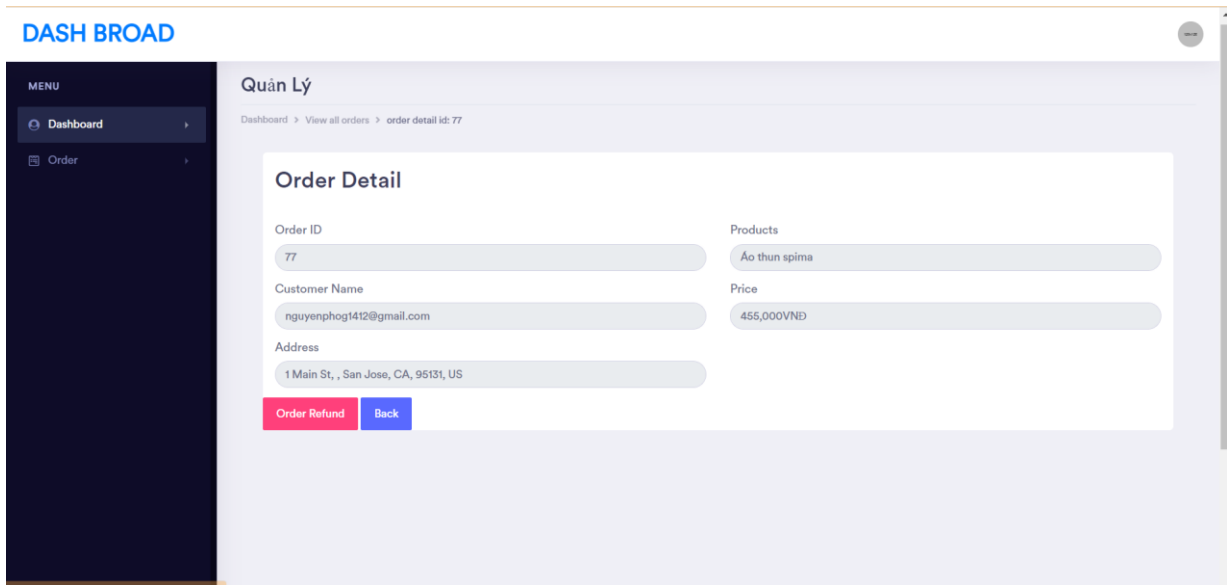
- **Functionality (Normal Case):** Sellers can view a list of their most recent orders in the Seller Dashboard. They can see essential details such as the order number, customer name, date of the order, and current status. Selecting a specific order provides more comprehensive order details, facilitating order fulfillment and customer communication.

- **Functionality (Abnormal Cases):**

- If there are no recent orders available, the system displays a message indicating that there are no orders to show.

- In the event of technical issues or data retrieval errors, the system may display an error message and prompt the seller to try again later.

3.3.11 Order detail



- **Function Trigger:** The Order Details function is triggered when a seller selects a specific order from the Recent Orders list within the Seller Dashboard.

- **Function Description:**

- **Actors/Roles:**

- **Seller:** The registered seller who is logged into their account and accessing the Seller Dashboard.

- **System:** The online shopping system.

- **Purpose:** The purpose of the Order Details function is to provide sellers with comprehensive information about a specific order, including customer details, order items, quantities, prices, payment status, and shipping information.

- **Interface:** The Order Details section within the Seller Dashboard presents the following information:

- **Customer Information:** Displays customer details such as name, contact information, and shipping address.

- **Order Items:** Lists the products included in the order, including their names, quantities, prices, and total amounts.

- **Payment Status:** Indicates whether the customer's payment has been successfully processed or if any issues have arisen.

- **Shipping Information:** Provides details about the shipping method selected by the customer, tracking number (if applicable), shipping unit and estimated delivery date.

- **Data Processing:**

- The Order Details function retrieves the specific order's data from the system's database based on the seller's selection.

- The system processes the data to present the order details accurately and in a user-friendly format.

- **Function Details:**

- **Data:** The function relies on order data stored in the system's database, including customer information, product details, payment status, and shipping information.

- **Validation:** The system validates the integrity of the retrieved data, ensuring that it is complete, accurate, and associated with the seller's account.

- **Business Rules:** The function adheres to business rules related to order processing, customer privacy, and payment status updates.

- **Functionality (Normal Case):** When a seller selects a specific order from the Recent Orders list, the system presents a detailed view of that order's information. This includes customer details, a breakdown of ordered items, their quantities, prices, payment status, and shipping information. Sellers can use this information to fulfill the order accurately and communicate effectively with the customer.

- **Functionality (Abnormal Cases):**

- If the selected order does not exist or is no longer available, the system displays an error message indicating that the order details cannot be retrieved.

- In the event of technical issues or data retrieval errors, the system may display an error message and prompt the seller to try again later.

IV. Non-Functional Requirements

4.1. External Interfaces

-The system shall provide seamless communication with users through multiple platforms, including web browsers, mobile applications.

-The system shall integrate with popular online payment gateways such as PayPal, Stripe, or other electronic payment methods.

-The system shall provide application programming interfaces (APIs) to enable integration with other systems such as inventory management, advertising systems, or shipping systems.

4.2. Quality Attributes

4.2.1 Usability

-Training Time: The average user should require a maximum of 1 hour to become proficient in basic operations on the website, while power users should require 30 minutes.

-Task Times: Measurable task times should be defined for typical operations, such as product search, adding items to the shopping cart, and completing the checkout process.

-Usability Standards: The system should adhere to common usability standards, such as IBM's Common User Access (CUA) standards or Microsoft's GUI standards.

-Action: Minimize the user's actions on the screen so that they complete a task on the system as quickly as possible.

4.2.2 Reliability

-Availability: The website should be operational and ready to serve customers 24/7.

-Mean Time Between Failures (MTBF): The website should not experience significant failures more frequently than once every 100 hours of operation.

-Mean Time To Repair (MTTR): In the event of a failure, the website should be repaired within a maximum of 4 hours to restore functionality.

-Accuracy: The information displayed on the website should be accurate to at least 99.5% compared to real-world data.

-Maximum Bug Rate: The website should have no more than 0.05 bugs per 1,000 lines of code or bugs per function.

-Critical Bug Rate: The website should have no more than 1 critical bug per month and no more than 5 critical bugs or 10 minor bugs per update cycle.

4.2.3 Performance

-Transaction Response Time: The average response time for a transaction should not exceed 2 seconds, and the maximum response time should not exceed 5 seconds.

-Throughput: The system should handle a minimum of 100 transactions per second.

-Capacity: The system should accommodate at least 10,000 customers or transactions simultaneously.

-Resource Utilization: The system should utilize system resources such as memory, disk, and communication efficiently.

4.2.4 Security

- User Data Protection: Ensure the security, integrity, and availability of user data.
- Authentication and Authorization: Verify user identities and grant appropriate access privileges.
- Secure Transactions: Use secure protocols and prevent security vulnerabilities.

4.2.5 Scalability

- Horizontal Scaling: Support additional servers or resources to handle increased user traffic.
- Database Scalability: Design the database to efficiently handle growing data volumes.
- Performance Monitoring: Track performance metrics and scale the system based on user demand.

4.2.6 Maintainability

- Modular Code Structure: Design codebase with modular components for easy maintenance.
- Documentation: Provide comprehensive documentation, including system architecture, API, and installation guides.
- Version Control: Manage source code using a version control system like Git for efficient collaboration and rollback capabilities.