

PA2

Use-Case Specification

Version <3.4>

Group 7

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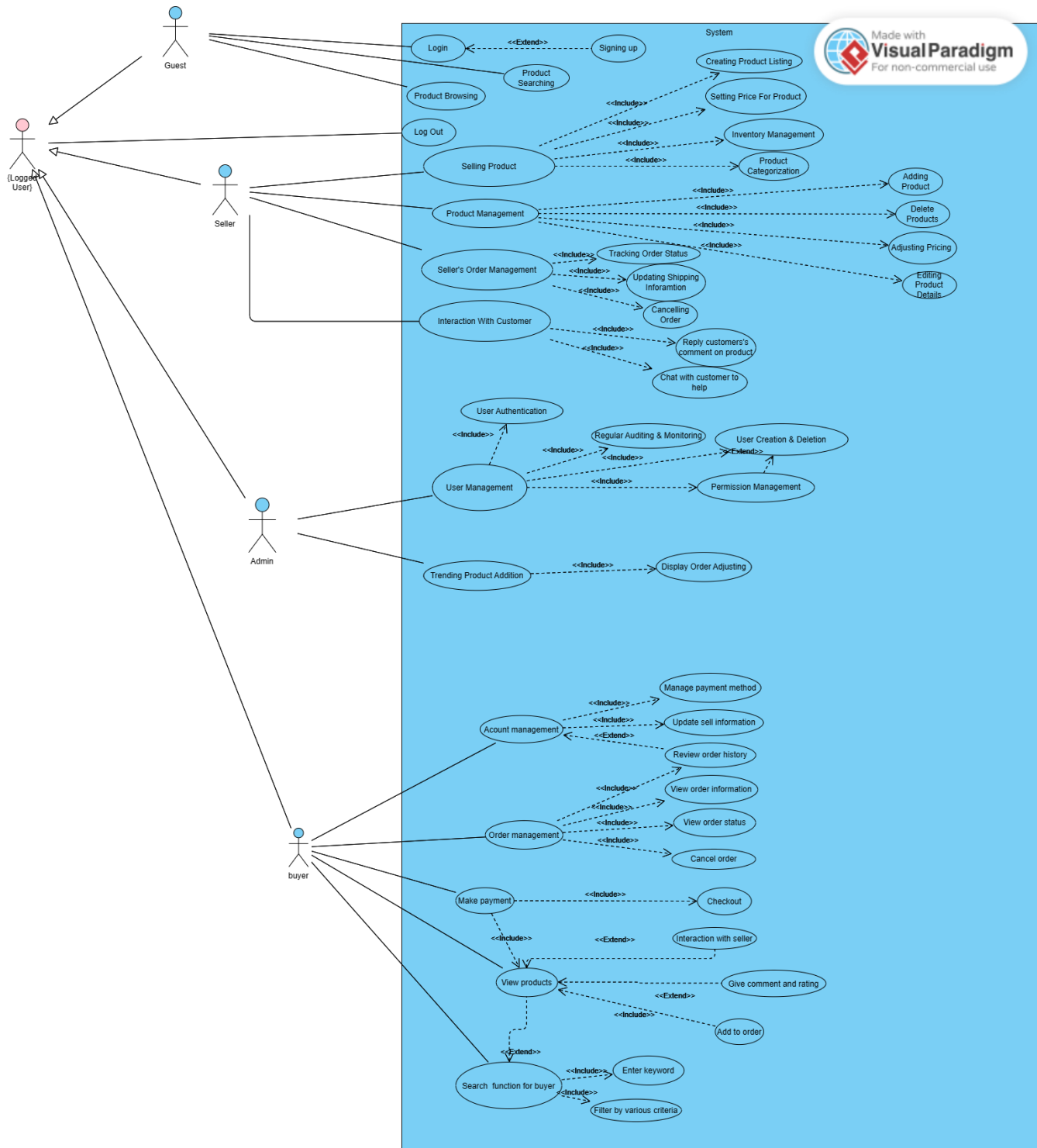
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I. Revision History

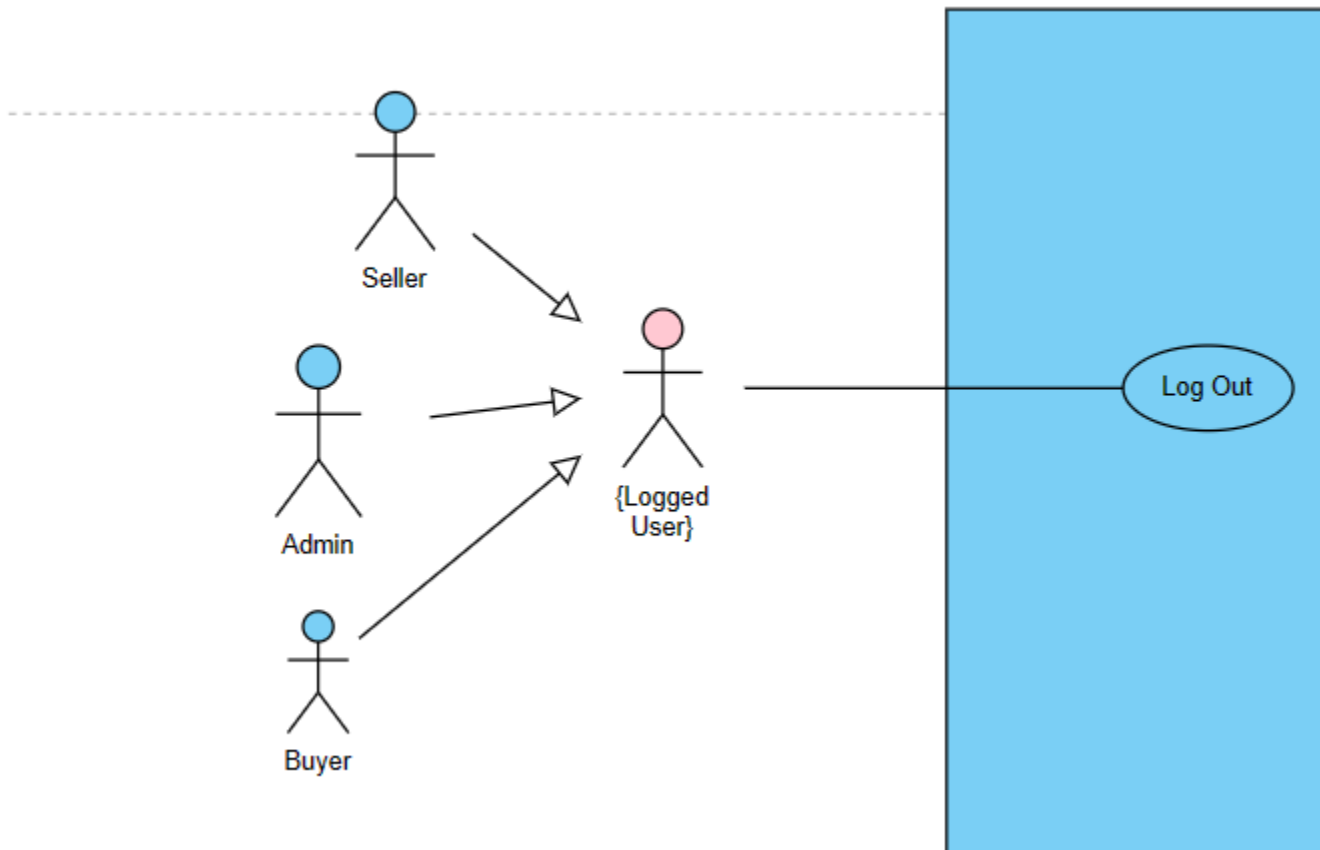
Date	Version	Description	Author
8/11/2023	1.0	Drawing Use Cases of Seller	Lưu Đình Huy
8/11/2023	1.1	Drawing Use Cases of Buyer	Vũ Phú Trường
8/11/2023	1.2	Drawing Use Cases of Guest and Admin	Quách Tấn Dũng
8/11/2023	1.3	Drawing Use Cases of Admin	Nguyễn Thành Luân
15/11/2023	1.4	Writing Use Case Specification for Admin and Guest	Quách Tấn Dũng
15/11/2023	1.5	Writing Use Case Specification for Buyer	Vũ Phú Trường
15/11/2023	1.6	Writing Use Case Specification for Admin	Nguyễn Thành Luân
15/11/2023	1.7	Writing Use Case Specification for Admin and Guest	Quách Tấn Dũng
15/11/2023	1.8	Writing Use Case Specification for Logged-User	Quách Tấn Dũng
15/11/2023	1.9	Writing Use Case Specification for Seller	Phạm Trần Minh Duy
15/11/2023	2.0	Writing Use Case Specification for Seller	Lưu Đình Huy
15/11/2023	2.1	Writing Use Case Specification for Buyer	Bùi Tuấn Kiệt
15/11/2023	2.2	Writing Use Case Specification for Buyer	Vũ Phú Trường
17/11/2023	2.3	Editing Use Case Specification for Buyer	Bùi Tuấn Kiệt
17/11/2023	2.4	Editing Use Case Specification for Seller	Phạm Trần Minh Duy
17/11/2023	2.5	Editing Use Case Specification for Admin	Nguyễn Thành Luân
17/11/2023	2.6	Editing Use Case Specification for Seller	Lưu Đình Huy

22/11/2023	27	Updated Use Case Cancel Order Specification	Quách Tấn Dũng
22/11/2023	2.8	Updated Use Case Diagram Admin For more Details (Added use case Mange trending section and use case Trending Product Addition)	Lưu Đình Huy
22/11/2023	2.9	Updated Use Case User Management Specification	Quách Tấn Dũng
22/11/2023	3.0	Updated Use Case User Creation And Deletion Specification	Quách Tấn Dũng
22/11/2023	3.1	Updated Use Case Trending Product Addition Specification	Quách Tấn Dũng
22/11/2023	3.2	Updated Use Case Display Order Adjusting Specification	Vũ Phú Trường
22/11/2023	3.3	Updated Use Case Trending Product Removal Specification	Vũ Phú Trường
22/11/2023	3.4	Updated Use Case View Product Specification	Vũ Phú Trường
29/11/2023	3.5	Remove these Use Cases and Specifications of admin: Content Management, Content Categorization & Tagging, Content Review and Approval, Content Archiving & Removal, Content Creation And Publishing Reasons: Not necessary in further coding	Lưu Đình Huy

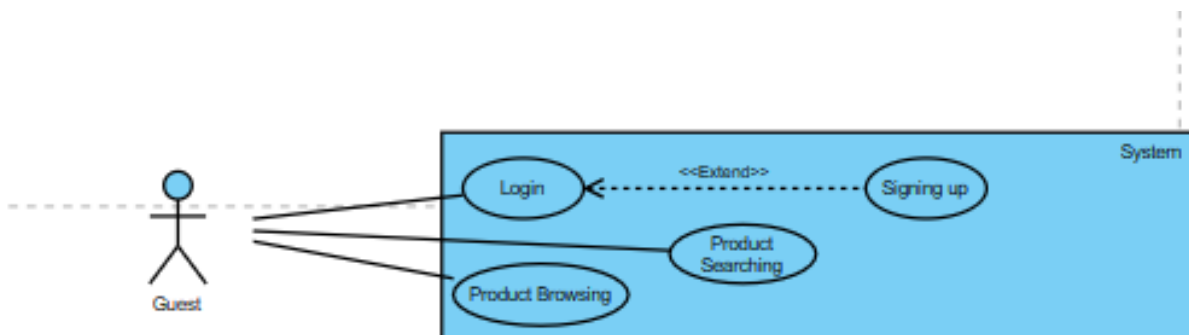
II. Use-Case Diagram: Overview



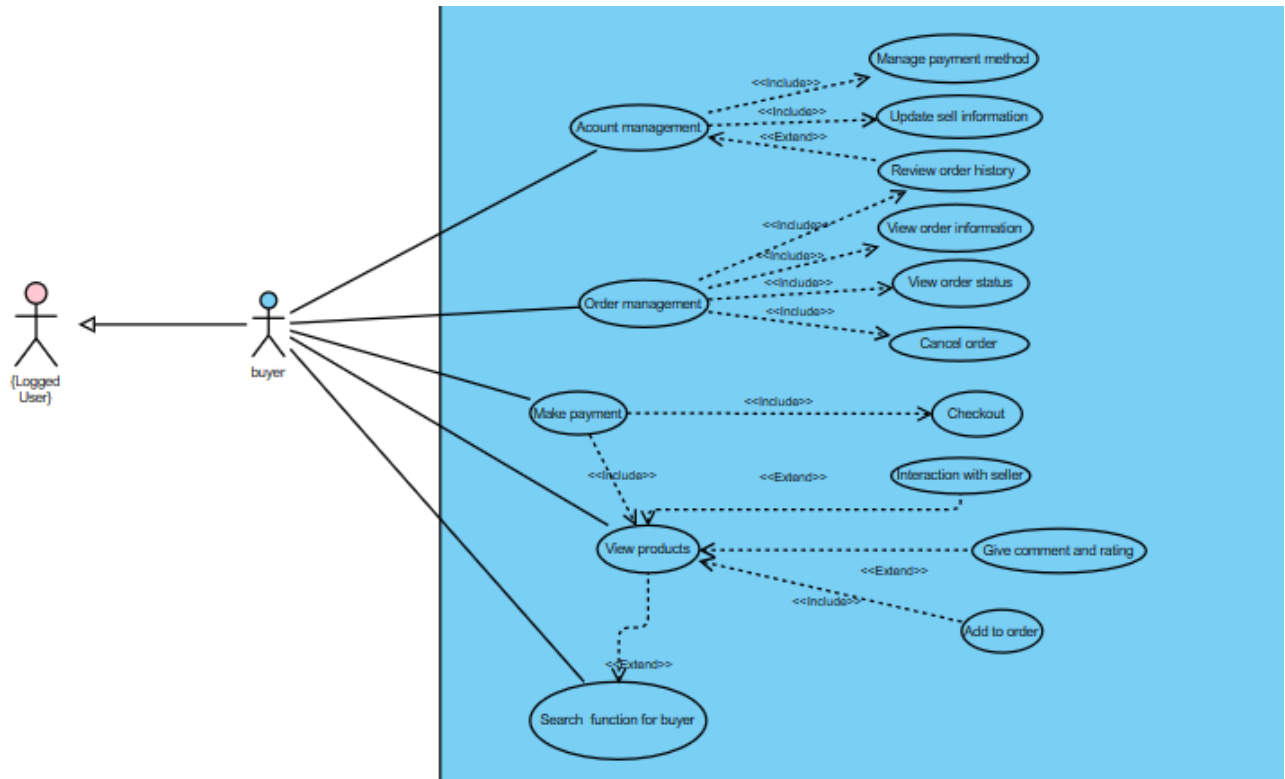
Logged User



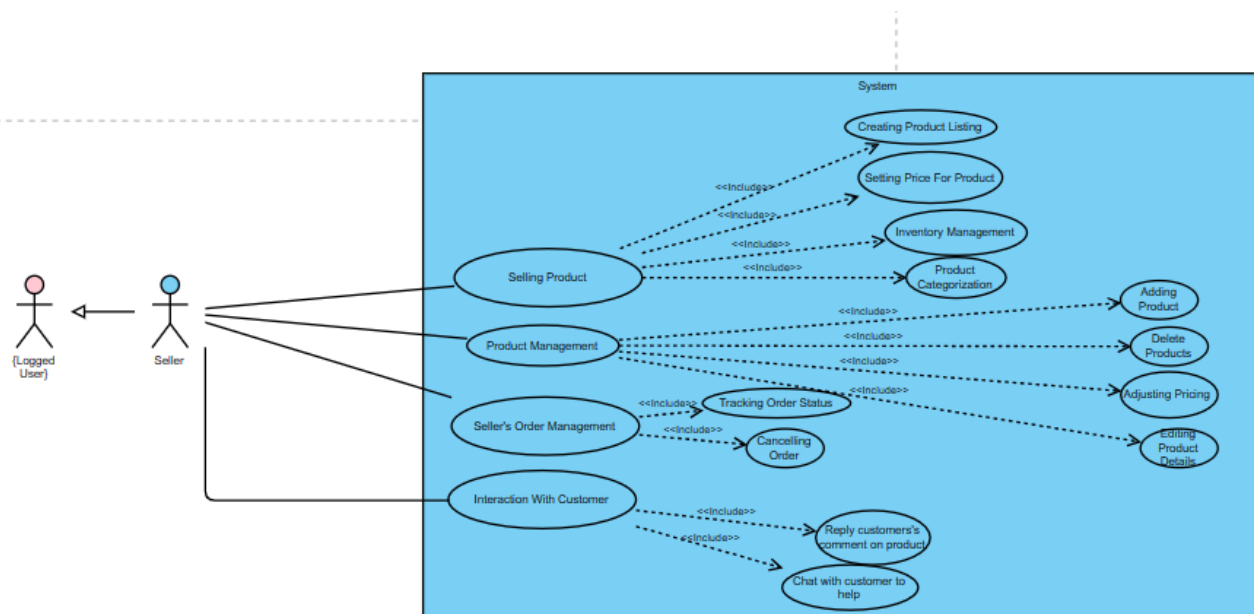
Guest



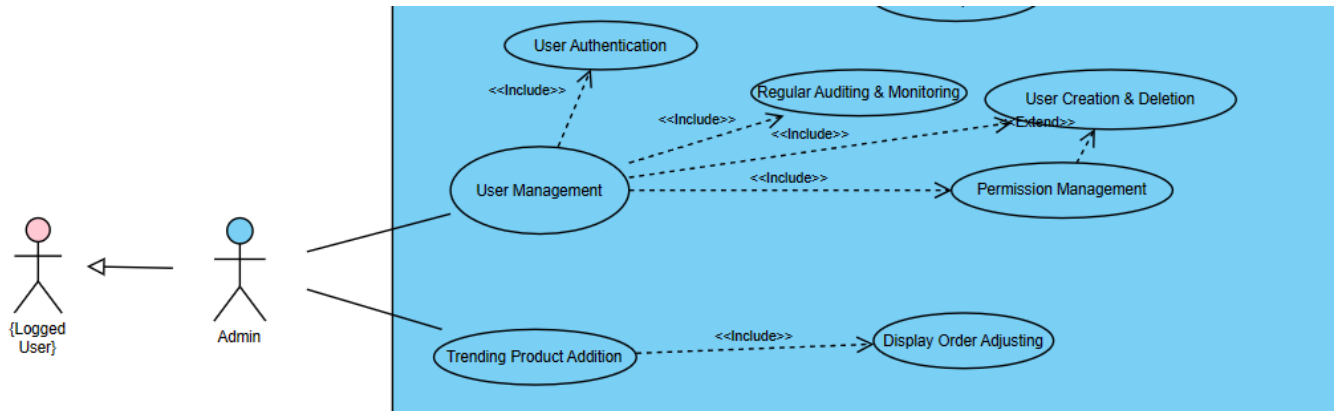
Buyer



Seller



Admin



III. Use-Case Specification

Use Case Signup

Use case ID	U01
Name	Signup
Brief Description	Taking information to create a new account
Actor	Guest creates a new account to join the website with more benefits
Preconditions	The new account must not exist in the current database
Postconditions	A new account is created
Basic Flow	<ol style="list-style-type: none">1. Sign up screen.2. Enter information (username, name, Gmail, phone number...)3. Enter verification code (sent to phone or Gmail)4. Lead to homepage
Alternative Flow	<ol style="list-style-type: none">1. At step 2, if the guests enter invalid information, there will be a warning and the guests are required to enter the information again.2. At step 3, if the guests enter the wrong code, they will be asked to enter the code again or they can request another verification code
Special Requirements	<ul style="list-style-type: none">• Security:<ul style="list-style-type: none">○ If the username has been used, notifies the user to change.○ The new sign-up account has username and password encoded.

Use Case Login

Use case ID	U02
Name	Login
Brief Description	helps users to access the system with pre-registered functions.
Extension points	Logged in users will have access to additional functionalities depending on their roles within the system.
Preconditions	The account must exist in the current database
Postconditions	Move to homepage
Basic Flow	<ol style="list-style-type: none">1. Access the Website2. System shows the login page.3. User input the username and password.4. System checks username and password.5. System notifies the user that login success.
Alternative Flow	<ol style="list-style-type: none">1. At step 4, if the username or the password does not exist in the system, notify the user.
Special Requirements	<ul style="list-style-type: none">• Security:<ul style="list-style-type: none">○ Username and password must be encoded.○ If the password is input incorrectly more than 5 times, disable the login feature for 30 minutes.

Use Case Account Management

Use case ID	U03
Name	Account management
Brief Description	To see and update self-information
Actor	Account owner
Preconditions	The account owner is logged into the system as a buyer
Postconditions	The account owner's personal information is updated if modified
Basic Flow	<ol style="list-style-type: none">1. The system displays the account owner's current personal information.2. The account owner selects the option to update personal information.3. The system presents a form with editable fields for personal information.4. The account owner modifies the desired information (e.g., name, address, contact details).5. The account owner submits the updated information.6. The system validates and saves the changes.7. The system displays a confirmation message.
Alternative Flow	<ol style="list-style-type: none">1. If the account owner decides not to update any information, they can cancel the process, and the system returns to the main account management view.
Special Requirements	<ul style="list-style-type: none">• The update form should provide clear instructions and validation messages for accurate data entry.

Use Case Manage Payment Method

Use case ID	U04
Name	Manage Payment Method
Brief Description	This use case involves the ability of the user to manage their payment methods associated with their account
Actor	account owner
Preconditions	The account owner is logged into the system
Postconditions	The payment methods are updated according to the user's actions
Basic Flow	<ol style="list-style-type: none">1. The system displays the current list of payment methods associated with the user's account.2. The account owner selects the option to manage payment methods.3. The account owner provides necessary information for a new payment method (e.g., credit card details).4. The system validates the information and adds the new payment method.
Alternative Flow	<ol style="list-style-type: none">1. If the account owner decides not to choose any payment methods, they can cancel the process, and the system returns to the main account management view.
Special Requirements	<ul style="list-style-type: none">• The system should ensure the security of sensitive payment information.• Adequate error handling and validation should be implemented to guide the user in providing accurate information.

Use Case Review Order History

Use case ID	U05
Name	Review Order History
Brief Description	This use case involves the ability for users to review their order history, providing a summary or detailed view of past orders.
Actor	Account owner
Preconditions	<ol style="list-style-type: none">1. The user is logged into the system.2. The user has a history of past orders.
Postconditions	The user has reviewed their order history.
Basic Flow	<ol style="list-style-type: none">1. The system displays a navigation option or section for viewing order history.2. The user selects the option to review order history.3. The system retrieves and displays a list of the user's past orders.4. The user selects a specific order from the list to view details.5. The system provides a summary or detailed view of the selected order, including items, quantities, prices, and order status.6. The user has the option to navigate back to the list of orders or perform additional actions, such as reordering items.
Alternative Flow	<ol style="list-style-type: none">1. If the user decides not to review order history or cancels the process, they can return to the main user dashboard.
Special Requirements	<ul style="list-style-type: none">• The order history should include relevant details, such as order date, status, and items ordered, to provide a comprehensive overview for the user.

Use Case Order Management

Use case ID	U06
Name	Order Management
Brief Description	This use case involves the management of orders specifically for buyers, enabling them to perform various actions related to their purchased items.
Actor	Account owner
Preconditions	<ol style="list-style-type: none">1. The buyer is logged into the system.2. The buyer has placed at least one order
Postconditions	The selected actions related to order management for the buyer have been successfully performed.
Basic Flow	<ol style="list-style-type: none">1. The system displays a list of orders placed by the buyer.2. The buyer selects a specific order from the list to perform actions.3. The system provides options for order management for the buyer, including but not limited to (Viewing order details, updating order status, cancelling an order).4. The buyer selects the desired action and provides necessary information.5. The system validates the action and updates the order information accordingly.6. The system confirms the successful completion of the order management action.
Alternative Flow	<ol style="list-style-type: none">1. If the buyer decides not to perform any order management action or cancels the process, they can return to the main order management view.
Special Requirements	<ul style="list-style-type: none">• The system should provide clear communication to the buyer about the status and outcome of their order management actions.• Adequate error handling and validation should be implemented to ensure the accuracy of order management actions.

Use Case View Order Information

Use case ID	U07
Name	View Order Information
Brief Description	This use case involves the capability for users to view detailed information about a specific order.
Actor	Account owner
Preconditions	<ol style="list-style-type: none">1. The user is logged into the system.2. The user has placed at least one order.
Postconditions	The user has successfully viewed the detailed information for the selected order.
Basic Flow	<ol style="list-style-type: none">1. The system displays a list of the user's recent orders.2. The user selects a specific order from the list to view detailed information.3. The system retrieves and displays comprehensive details about the selected order.4. This may include order date, order status, itemized list of products, quantities, prices, and total cost.5. The user can navigate back to the list of orders or perform additional actions, such as reordering items.
Alternative Flow	If the user decides not to view order information or cancels the process, they can return to the main user dashboard.
Special Requirements	<ul style="list-style-type: none">• The order information display should be comprehensive, providing all relevant details for the user to understand the contents and status of the order.• Access to order information should be secure and restricted to the user account

Use Case Update Order Status

Use case ID	U08
Name	Update Order Status
Brief Description	This use case involves the ability for the account owner to view the status of their placed orders.
Actor	Account owner
Preconditions	<ol style="list-style-type: none">1. The account owner is logged into the system.2. The account owner has placed at least one order
Postconditions	The account owner has successfully viewed the status of the selected order.

Basic Flow	<ol style="list-style-type: none">1. The system displays a list of orders placed by the account owner.2. The account owner selects a specific order from the list to view its status.3. The system provides a detailed view of the selected order, including its status.4. The account owner can navigate back to the list of orders or perform additional actions.
Alternative Flow	If the account owner decides not to view the status or cancels the process, they can return to the main order view.
Special Requirements	<ul style="list-style-type: none">• The system should ensure that only the account owner can view the status of their own orders.• Access to order status information should be secure and restricted to the user account.• The system should provide clear and concise order status information for the account owner.

Use Case Cancel Order

Use case ID	U09
Name	Cancel order
Brief Description	This use case involves the ability for users to cancel a placed order.
Actor	Account owner
Preconditions	<ol style="list-style-type: none">1. The account owner is logged into the system.2. The account owner has placed an order that is eligible for cancellation (not yet shipped or delivered).
Postconditions	The selected order has been successfully canceled.
Basic Flow	<ol style="list-style-type: none">1. The system displays a list of orders placed by the account owner.2. The account owner selects a specific order from the list to cancel.3. The system provides an option to cancel the selected order.4. The account owner confirms the cancellation request.5. The system validates the cancellation request and updates the order status to "Canceled."6. The system confirms the successful cancellation of the order.
Alternative Flow	If the account owner decides not to cancel the order or cancels the cancellation process, they can return to the main order view.
Special Requirements	<ul style="list-style-type: none">• Orders can only be canceled if they are in a cancelable state (not yet shipped or delivered).

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| | <ul style="list-style-type: none">• Adequate error handling and validation should be implemented to ensure the accuracy of the cancellation process.• The system should communicate the cancellation status clearly to the account owner. |
|--|--|

Use Case Selling Product

Use case ID	U10
Name	Selling Product
Brief Description	Manage products of the seller
Actor	Sellers who want to sell products
Preconditions	Users must login to the website as a seller
Postconditions	The products have their price set/ Sellers now have product list.
Basic Flow	<ol style="list-style-type: none">1. Seller's homepage2. Choose "Selling Product"3. Confirm4. Choose features that exist in "Selling Product"
Alternative Flow	<ol style="list-style-type: none">1. If connection lost, an error message will appear, delete ongoing progress, after connection is back on, reload the page
Special Requirements	<ul style="list-style-type: none">• The system records actions for future inspection purposes• Usability: easy to learn to find product that needs to be managed and given feature to use.

Use Case Product Management

Use case ID	U11
Name	Product Management
Brief Description	Manage products of the seller.
Actor	Sellers who want to manage their product.
Preconditions	Users must login to the website as a seller.
Postconditions	After modifying, the product's information/status changes.
Basic Flow	<ol style="list-style-type: none">1. Seller's homepage.2. Choose "Product Management"3. Confirm.4. Choose features that exist in "Product Management"
Alternative Flow	<ol style="list-style-type: none">1. If connection lost, an error message will appear, delete ongoing progress, after connection is back on, reload the page
Special Requirements	<ul style="list-style-type: none">• The system records actions for future inspection purposes• Usability: easy to learn to find product that needs to be managed and given feature to use.

Use Case Creating Product List

Use case ID	U12
Name	Creating Product List
Brief Description	Create a list of items being sold by the seller
Actor	Seller wants to make a list of products for sale
Preconditions	There is no current list
Postconditions	A list is created
Basic Flow	<ol style="list-style-type: none">1. Seller's homepage.2. Choose "Selling Product".3. Choose "Make product list"4. Confirm.5. Redirected to seller's list page.
Alternative Flow	<ol style="list-style-type: none">1. If connection lost, an error message will appear, delete ongoing progress, after connection is back on, reload the page
Special Requirements	<ul style="list-style-type: none">• The system records actions for future inspection purposes

Use Case Add Product

Use case ID	U13
Name	Add Product
Brief Description	Add product to the seller's list
Actor	Seller having products available for sale
Preconditions	Verified seller having the products
Postconditions	Products are added to the list
Basic Flow	<ol style="list-style-type: none">1. Seller's homepage2. Choose "Selling Product"3. Choose "Add product"4. Describe the product.5. Confirm6. Redirected to the following price setting page
Alternative Flow	<ol style="list-style-type: none">1. If connection lost, an error message will appear, delete ongoing progress, after connection is back on, reload the page
Special Requirements	<ul style="list-style-type: none">• The system records actions for future inspection purposes

Use Case Setting Price

Use case ID	U14
Name	Setting price
Brief Description	Setting price for the products previously added
Actor	The seller wants to price their product for sale
Preconditions	There's at least one product in the seller's list
Postconditions	Products are now priced
Basic Flow	<ol style="list-style-type: none">1. Seller's homepage2. Choose "Selling Product"3. Price setting page4. Setting the price of the product5. Confirm6. Redirected to the categorize page
Alternative Flow	<ol style="list-style-type: none">1. At step 2, if the price is not an unsigned integer, an error message will appear.2. Click "OK" will erase the current invalid price and the seller has to input the price again
Special Requirements	<ul style="list-style-type: none">• The system records actions for future inspection purposes

Use Case Product Categorization

Use case ID	U15
Name	Product Categorization
Brief Description	Categorize the product in the seller's list
Actor	Seller wants to categorize the product
Preconditions	There's at least one product in the seller's list
Postconditions	Products are categorized
Basic Flow	<ol style="list-style-type: none">1. Seller's homepage2. Choose "Selling Product"3. Categorization's page4. Categorize the product.5. Confirm
Alternative Flow	<ol style="list-style-type: none">1. If connection lost, an error message will appear, delete ongoing progress, after connection is back on, reload the page
Special Requirements	<ul style="list-style-type: none">• The system records actions for future inspection purposes

Use Case Inventory Management

Use case ID	U16
Name	Inventory Management
Brief Description	The seller operates on his list of items for sale
Actor	The seller wants to adjust his product
Preconditions	There's at least one product in the seller's list
Postconditions	Products are now priced
Basic Flow	<ol style="list-style-type: none">1. Seller's list page2. Click on a product.3. Redirected to the product's page.4. Click on "Adjust quantity"5. A small tab for quantity adjusting appears.6. Setting the quantity of the product7. Confirm
Alternative Flow	<ol style="list-style-type: none">1. At step 6, if the quantity is not a natural number, an error message will appear.2. Click "OK" will erase the current invalid value and the seller must input the quantity again.3. Confirm
Special Requirements	<ul style="list-style-type: none">• The system records actions for future inspection purposes

Use Case Delete Product

Use case ID	U17
Name	Delete Product
Brief Description	Delete product from the seller's list
Actor	Seller no longer wants to sell a product
Preconditions	Product is currently in the list
Postconditions	Product is no longer in the list
Basic Flow	<ol style="list-style-type: none">1. Seller's list page2. Choose a product.3. Redirected to the product's page.4. Click "Delete"5. A small tab asks for confirmation.6. Confirm7. Redirected to the seller's list page
Alternative Flow	<ol style="list-style-type: none">1. At step 6, if click "Cancel", redirected to the seller's list page
Special Requirements	<ul style="list-style-type: none">• Require a password when deleting product.• Multiple deletion• The system records actions for future inspection purposes

Use Case Editing Product Details

Use case ID	U18
Name	Editing Product Details
Brief Description	Editing description of the product
Actor	Seller wants to change how the product is described
Preconditions	Product is currently in the list
Postconditions	Product is now described again
Basic Flow	<ol style="list-style-type: none">1. Seller's list page2. Choose a product.3. Redirected to the product's page.4. Click "Edit Detail"5. A small tab appears for editing.6. Edit7. Confirm8. Redirected to the seller's list page
Alternative Flow	<ol style="list-style-type: none">1. At step 6, if click "Cancel", redirected to the seller's list page
Special Requirements	<ul style="list-style-type: none">• Require a password when editing product.• The system records actions for future inspection purposes

Use Case Adjusting Pricing

Use case ID	U19
Name	Adjusting Pricing
Brief Description	Adjust the price of the product
Actor	Seller wants to change the price of a product
Preconditions	Product is currently in the list
Postconditions	Product's price is now changed
Basic Flow	<ol style="list-style-type: none">1. Seller's list page2. Choose a product.3. Redirected to the product's page.4. Click "Adjust Price"5. A small tab appears for adjusting.6. Adjust the price.7. Confirm8. Redirected to the seller's list page
Alternative Flow	<ol style="list-style-type: none">1. At step 6, if click "Cancel", redirected to the seller's list page, else if a new price is inputted, check if it is an unsigned integer
Special Requirements	<ul style="list-style-type: none">• Require a password when adjusting the price of the product.• The system records actions for future inspection purposes

Use Case Seller's Order Management

Use case ID	U20
Name	Seller's Order Management
Brief Description	Seller manages his orders through this
Actor	Seller wants to manage his orders
Preconditions	Seller must have at least one order
Postconditions	Order is adjusted as the seller's will
Basic Flow	<ol style="list-style-type: none">1. Choose Order Management from the seller's homepage.2. Choose the order that needs management.3. Choose the action to perform.4. Confirm
Alternative Flow	<ol style="list-style-type: none">1. If connection lost, an error message will appear, delete ongoing progress, after connection is back on, reload the page
Special Requirements	<ul style="list-style-type: none">• Some features require a password to proceed.• The system records actions for future inspection purposes

Use Case Tracking Order's Status

Use case ID	U21
Name	Tracking Order's Status
Brief Description	Give the seller the current location of the order's package
Actor	Seller wants to track where the package is
Preconditions	Seller must have order that is currently shipping
Postconditions	Seller knows where the package is
Basic Flow	<ol style="list-style-type: none">1. From the Order Management page choose an order.2. Choose "Track order"3. A small tab appears and gives the information.
Alternative Flow	<ol style="list-style-type: none">1. If the order is not currently shipping, the "Track order" is unusable
Special Requirements	<ul style="list-style-type: none">• GPS and Google Map

Use Case Cancel Order*

Use case ID	U22
Name	Cancel Order
Brief Description	Cancel an order placed
Actor	Seller wants to cancel an order due to several reasons
Preconditions	Has a placed order
Postconditions	Order is canceled
Basic Flow	<ol style="list-style-type: none">1. From the Order Management page choose an order2. Choose "Cancel"3. Confirm
Alternative Flow	<ol style="list-style-type: none">1. At step 3, there is also an alternative option to quit the cancellation without changing anything for the order
Special Requirements	<ul style="list-style-type: none">• Require a password.• Order can be restored for a period after the cancellation.

Use Case Interaction with Customer

Use case ID	U23
Name	Interaction With Customer
Brief Description	Ways to contact and speak with the buyers
Actor	Seller wants to reply to a comment or a message from the buyer or just simply take the initiative
Preconditions	Seller should have his products listed on the website, enabling customers to inquire about or discuss these specific items through the chat function
Postconditions	Seller's reply or comment is sent
Basic Flow	<ol style="list-style-type: none">1. At seller's homepage choose "Notification"2. Choose a notification of a message.3. Reply and send.
Alternative Flow	<ol style="list-style-type: none">1. Seller can manually search for comments or replies in his product's comment section or customer chat list
Special Requirements	<ul style="list-style-type: none">• Privacy and Data Protection• The system records actions

Use Case Reply Customer's Comment on Product

Use case ID	U24
Name	Reply Customer's Comment on Product
Brief Description	Reply the customer through the comment section of a product
Actor	A customer has questions about the product or anything
Preconditions	There is a comment of a buyer
Postconditions	Seller's reply sent
Basic Flow	<ol style="list-style-type: none">1. At seller's homepage choose "Notification"2. Choose a notification of a message.3. Reply and send
Alternative Flow	<ol style="list-style-type: none">1. Go to Product list page2. Choose a product.3. Look for the comment and choose "Reply."4. Write the reply and confirm, can be cancel
Special Requirements	<ul style="list-style-type: none">• The reply is stored and showed for everyone to see• Comment can be revoked

Use Case Chat with Customer to Help

Use case ID	U25
Name	Reply Customer's Comment on Product
Brief Description	Reply the customer through private chat
Actor	A customer has questions about the product or anything
Preconditions	There is a message of a buyer
Postconditions	Seller's reply sent
Basic Flow	<ol style="list-style-type: none">1. At seller's homepage choose "Notification"2. Choose a notification of a message.3. Reply and send
Alternative Flow	<ol style="list-style-type: none">1. Go to Customer chat.2. Choose a customer.3. Write the reply and sent
Special Requirements	<ul style="list-style-type: none">• Anything sent in private chat is guaranteed safety and security.• Reply can be revoked

Use Case Permission Management

Use Case ID	U26
Name	Permission Management
Brief Description	Permission Management is a critical aspect of digital security and access control within an organization. It involves the systematic assignment, modification, and revocation of access rights and permissions to users or groups of users. This process ensures that individuals have the appropriate level of access to digital resources, systems, and data based on their roles and responsibilities.
Actor	Admin
Preconditions	The organization has a User Management system in place. An administrator with the necessary credentials is logged into the system.
Postconditions	Access rights and permissions are successfully modified as per the administrator's actions. Users have the appropriate level of access to perform their duties
Basic Flow	<ol style="list-style-type: none">1. Log in to the Permission Management system2. Navigate to the main dashboard and initiate the permission management process3. Revoke or modify permissions based on changes in user roles, job responsibilities, or security requirements.4. Maintain comprehensive documentation of permission assignments and changes
Alternative Flow	<ol style="list-style-type: none">1. Access Permission Modification Interface2. Select User or Role3. Modify Permissions4. Confirmation or Cancellation. Confirm the modified permissions to apply for the changes immediately.
Special Requirements	<ul style="list-style-type: none">• Role-Based Access Control (RBAC)• Audit Trail• User Notification• Data Retention Policies

Use Case User Management *

Use case ID	U27
Name	User Management
Brief Description	User Management is a system that enables organizations to efficiently handle user accounts and permissions within their digital platforms. It includes the creation, modification, and deletion of user accounts and the assignment and management of access rights. This system ensures proper security measures and streamlines the process of user administration.
Actor	The primary actors in the User Management system include administrators, who have the authority to manage user accounts and permissions, and end-users who interact with the digital platform and require access to specific resources.
Preconditions	The User Management system is installed and operational. An administrator with the necessary credentials is logged into the system.
Postconditions	User account information is updated as per the administrator's actions. Access rights and permissions are modified according to the changes made by the administrator.
Basic Flow	<ol style="list-style-type: none">1. Admin Login: The admin logs in to the private website.2. Navigate to User Management: The admin selects the section titled "User Management."3. User List: In the user management section, there is a list of users. Each row has an action button at the end.4. Choose an Action: The admin selects the desired action for a specific user. Available actions include deleting a user, granting permissions, or confirming an action.
Alternative Flow	<ol style="list-style-type: none">1) When searching for a user account that does not exist, the admin can return to the user list.2) If the admin does not wish to make any changes, they can navigate back to the main page.
Special Requirements	<ul style="list-style-type: none">• Security Measures unauthorized access.• Audit Trail• Scalability• User-Friendly Interface

Use Case User Authentication

Use case ID	U28
Name	User Authentication
Brief Description	User Authentication is a crucial component of digital security systems that verifies the identity of users attempting to access a system or application. It involves the validation of user credentials, such as usernames and passwords, to ensure that only authorized individuals gain access to protected resources. User Authentication plays a fundamental role in safeguarding sensitive information and preventing unauthorized access.
Actor	The primary actors in User Authentication include the end-users seeking access and the authentication system, which may utilize various methods to validate the user's identity
Preconditions	The User Authentication system is operational and integrated into the target application or system. Users have been registered with the system and possess valid credentials.
Postconditions	Successful authentication grants the user access to the requested resources. Failed authentication results in denial of access and may trigger security alerts.
Basic Flow	<ol style="list-style-type: none">1. Choose “User Authentication” from the admin's homepage.2. Choose the user that needs to be tested.3. Use the given feature to check user authentication.4. The system notifies that the action has been successful.
Alternative Flow	<ol style="list-style-type: none">1. At step 2, if the user does not exist, notifies the user.2. At step 3, if needed system may suggest the “User Creation & Deletion” feature.
Special Requirements	<ul style="list-style-type: none">• Encryption• Brute Force Protection• Compliance with Security Standards

Use Case Regular Auditing and Monitoring

Use case ID	U29
Name	Regular Auditing & Monitoring
Brief Description	Regular Auditing & Monitoring is a systematic process within an organization that involves the continuous examination, analysis, and assessment of digital systems, processes, and data to ensure compliance, security, and optimal performance. This practice includes monitoring activities, reviewing logs, and conducting periodic audits to identify and address potential issues, vulnerabilities, or irregularities in the organization's IT environment.
Actor	Admin
Preconditions	The organization has implemented an auditing and monitoring system. System logs and relevant data are generated and stored.
Postconditions	Identified issues or vulnerabilities are addressed promptly. Records of audits and monitoring activities are maintained for compliance and future reference.
Basic Flow	<ol style="list-style-type: none">1. Log in to the organization's Auditing & Monitoring system.2. Navigate to the main dashboard and initiate the auditing and monitoring process.3. Trigger the system to collect data from various sources, including system logs, network activity, and user interactions.4. Configure real-time monitoring tools to track and capture events.5. Access the log analysis module to scrutinize collected logs for patterns, anomalies, or suspicious activities.
Alternative Flow	<ol style="list-style-type: none">1. Log in to the Incident Response system.2. Upon logging in, check the incident notification section for alerts triggered by real-time monitoring systems or user reports.3. Access the incident response dashboard to view a detailed overview of the incident, including affected systems and relevant data.4. Initiate recovery procedures to restore affected systems to normal operation. Implement additional security measures to prevent a similar incident in the future.
Special Requirements	<ul style="list-style-type: none">• Real-time Monitoring• Management (SIEM)• Regular Training.• Documentation and Reporting

Use Case User Creation & Deletion*

Use case ID	U30
Name	User Creation & Deletion
Brief Description	User Creation & Deletion is a process within an organization's digital systems that involves the establishment and removal of user accounts. This process is essential for managing access to digital resources, ensuring security, and aligning user permissions with organizational roles and responsibilities.
Actor	Admin
Preconditions	The organization has a User Management system in place. An administrator with the necessary credentials is logged into the system.
Postconditions	User accounts are successfully created or deleted. Access rights and permissions are adjusted according to the changes made by the administrator.
Basic Flow	<ol style="list-style-type: none">1. Access User Management Dashboard from admin's homepage.2. Users choose "Create" or "Delete".3. User input necessary information to create an account or find an account to delete.4. System checks and verification the action.5. Users confirm the action.6. System creates new account or deletes chosen account from system.7. The system notifies that the action has been successful.
Alternative Flow	<ol style="list-style-type: none">1. In step 3, if the chosen account for delete is inactive for too long (maybe 1 year), skip step 4.2. In step 2, in create function, if the id is duplicated, notifies the user.3. In step 2, in delete function, if the chosen account is not exist notifies the user.
Special Requirements	<ul style="list-style-type: none">• Role-Based Access Control (RBAC)• Audit Trail• User Notification• Data Retention Policies

Use Case Manage Trending Section

Use case ID	U36
Name	Trending Section Management
Brief Description	Trending Section Management is a feature within digital platforms that curates and displays popular or trending content based on user interactions, engagement metrics, or other relevant criteria. This functionality enhances user experience by highlighting content that is currently popular or gaining traction within the platform.
Actor	The primary actors in Trending Section Management include platform administrators responsible for configuring and managing the trending section, and end-users who engage with the platform's content.
Preconditions	The digital platform has a Trending Section feature implemented. Platform administrators have access to configuration settings.
Postconditions	The trending section accurately reflects current popular content. User engagement and satisfaction with the platform are enhanced.
Basic Flow	<ol style="list-style-type: none">1. Choose “Trending Section Management” from the admin's homepage.2. Choose content that needs to be managed.3. Add or remove the content from trending section.4. The system notifies that the action has been successful.
Alternative Flow	<ol style="list-style-type: none">1. At step 2, if the content does not exist in the system, notifies the user.
Special Requirements	<ul style="list-style-type: none">• Real-time Updates• Algorithm Transparency• User Feedback Integration

Use Case Trending Product Addition *

Use case ID	U37
Name	Trending Product Addition
Brief Description	Trending Product Addition is a feature within e-commerce or retail platforms that facilitates the dynamic inclusion of popular or trending products based on consumer preferences, purchase patterns, or other relevant metrics. This functionality aims to enhance the visibility of in-demand products, improve user engagement, and drive sales by showcasing items that are currently trending among users.
Actor	The primary actors in Trending Product Addition include platform administrators responsible for managing product listings and end-users who browse and make purchases on the platform.
Preconditions	The e-commerce platform has a Trending Product Addition feature implemented. Platform administrators have access to product management tools.
Postconditions	The trending product section accurately reflects current popular products. User satisfaction and engagement with the platform are increased.
Basic Flow	<ol style="list-style-type: none">1. Choose “Trending Product Addition” from the admin's homepage.2. Choose a product that needs to be added to the trending section.3. The system checks for products in the database and notifies the user if the product exists.4. User confirm adding the product.5. The system adds new products to the trending section.6. The system notifies that the action has been successful
Alternative Flow	<ol style="list-style-type: none">1. Step 3, product does not exist, notifies users.2. Step 3, product does not exist, show option to add product.
Special Requirements	<ul style="list-style-type: none">• Real-time Updates• Algorithm Transparency.• User Feedback Integration• Inventory Management

Use Case Display Order Adjusting *

Use case ID	U38
Name	Display Order Adjustment
Brief Description	Display Order Adjustment is a functionality within digital platforms, particularly in e-commerce, content management systems, or similar environments, that allows users, often administrators or content creators, to customize the order in which items or content are displayed. This feature provides flexibility in organizing and presenting information based on specific criteria, enhancing user experience and content visibility.
Actor	The primary actors in Display Order Adjustment include platform administrators or content creators responsible for managing and arranging the order of items or content, and end-users who navigate the platform.
Preconditions	The digital platform has a Display Order Adjustment feature implemented. Platform administrators or content creators have appropriate access permissions.
Postconditions	The order of displayed items or content is successfully adjusted according to the user's preferences. Users experience a tailored and optimized presentation of content.
Basic Flow	<ol style="list-style-type: none">1. Choose “Display Order Adjusting” from the admin's homepage.2. Choose a product that needs to be reordered in the trending section.3. System checks for product in the database and notifies the user if success.4. User confirm reordering the product.5. The system notifies that the action has been successful
Alternative Flow	<ol style="list-style-type: none">1. Step 2, if the product does not exist on the trending section, notify the user.2. Step 2, if the product does not exist on the trending section, show option to add product to the trending section.3. Step 2, if the product does not exist in the database, show option to add product.
Special Requirements	<ul style="list-style-type: none">• Granular Control• Preview Mode• Permission Controls

- Mobile Responsiveness

Use Case Trending Product Removal *

Use case ID	U39
Name	Trending Product Removal
Brief Description	Trending Product Removal is a feature within e-commerce or retail platforms that allows administrators or content managers to selectively remove products from the trending or popular section. This functionality ensures that the displayed trending products accurately reflect current user preferences and maintain relevancy by removing items that are no longer popular.
Actor	The primary actors in Trending Product Removal include platform administrators or content managers responsible for managing product listings and ensuring the accuracy of trending product displays.
Preconditions	The e-commerce platform has a Trending Product Removal feature implemented. Platform administrators or content managers have appropriate access permissions.
Postconditions	The removed products are no longer displayed in the trending or popular section. The trending product section accurately reflects current popular products.
Basic Flow	<ol style="list-style-type: none">1. The authorized user has access to the list of trending products.2. They search for and select the product they wish to delete.3. A confirmation dialog box is displayed, asking them to confirm the removal of the product from the trending list.4. After confirmation, a success message is shown, indicating that the product has been successfully deleted.
Alternative Flow	<ol style="list-style-type: none">1. If the product is required to be removed because of legal issues, ethical concerns, safety recalls, or public relations issues, users can bypass this review step using a special PIN code provided by the owner of the system.2. If you do not want to remove the product from the list, you can return to the product list.
Special Requirements	<ul style="list-style-type: none">• Before performing a deletion, the user must have full authorization.• A comprehensive confirmation prompt should be displayed prior to deletion.

- There should be an option to undo the deletion in case a product is removed accidentally.

Use Case View Product *

Use case ID	U40
Name	View Product
Brief Description	This functionality allows users to view detailed information about a specific product.
Actor	Buyers who have a demand to view products
Preconditions	<ol style="list-style-type: none">1. The user is logged in (for registered users).2. The product exists in the system.
Postconditions	<ol style="list-style-type: none">1. The user has successfully viewed the detailed information of the selected product.2. The system remains in the product viewing interface.
Basic Flow	<ol style="list-style-type: none">1. User logs into the system.2. User navigates to the product catalog.3. User selects a specific product to view.4. The system retrieves and displays comprehensive details of the selected product, including but not limited to:5. (Product name,Description,Price,Availability,Customer reviews,Technical specifications,Images)6. User examines the product details.
Alternative Flow	<ol style="list-style-type: none">1. In step 2, if the user does not wish to proceed, they can navigate back to the previous page.
Special Requirements	<ul style="list-style-type: none">• The interface provides clear navigation options for users to return to the product list or continue shopping.• The system response time to the user should be within 2 seconds.

Use Case Interaction with Seller

Use case ID	U41
Name	Interaction with Seller
Brief Description	Allows users to communicate and interact with sellers regarding products or order-related inquiries.
Actor	Registered Customer who has problem with their products, order, ...
Preconditions	<ol style="list-style-type: none">1. The user is logged in.2. The user has initiated contact with the seller through the platform.
Postconditions	<ol style="list-style-type: none">1. The user has successfully communicated with the seller.2. Any issues or inquiries have been addressed, providing clarity or resolution.
Basic Flow	<ol style="list-style-type: none">1. User navigates to the product page or order history where seller interaction is available.2. User selects the option to "Contact Seller".3. Interface for the user to compose and send messages to the seller.4. The seller receives the message and responds.5. A notification is sent to the user when a new message from the seller is received.6. User and seller continue the conversation until the inquiry is resolved or additional information is provided.
Alternative Flow	<ol style="list-style-type: none">1. At step 2 If the seller is temporarily unavailable, the system informs the user. The user may choose to wait for the seller's response or leave a message for later review.2. At step 3 if the seller is not responsive, the user may escalate the issue to admin to get support or seek assistance through platform-provided channels.
Special Requirements	<ul style="list-style-type: none">• Support real-time or timely communication between the user and the seller.• Maintain user privacy and data security during the interaction.

Use Case Make Payment

Use case ID	U42
Name	Make Payment
Brief Description	Enables users to complete the payment process for selected items in their shopping cart.
Actor	Registered Customer who wants to buy the products.
Preconditions	<ol style="list-style-type: none">1. The user is logged in.2. The shopping cart contains at least one item.3. The user has selected the "Make Payment" option.
Postconditions	<ol style="list-style-type: none">1. The payment transaction is successfully processed.2. The order is confirmed and recorded in the system.3. The purchased items are reserved or marked as sold.4. An order confirmation is sent to the user via email.
Basic Flow	<ol style="list-style-type: none">1. User navigates to the payment section.2. The system displays a summary of the selected items, along with the total amount to be paid.3. User chooses the payment method (credit card, PayPal, etc.).4. User provides necessary payment details and confirm it.5. System verifies the payment information.6. The system updates the order status.
Alternative Flow	<ol style="list-style-type: none">1. At step 4 If the user decides to cancel the payment, the system will cancel the transaction and the user is redirected to the shopping cart or a relevant page.2. At step 5 if the payment fails the system provides an error message and prompts the user to review and resubmit payment details.
Special Requirements	<ul style="list-style-type: none">• Support various payment methods securely.• Comply with industry standards and security regulations.

Use Case Add to Order

Use case ID	U43
Name	Add to Order
Brief Description	Allows users to add items to their existing order before completing the checkout process.
Actor	Registered Customer who wants to store the product's info.
Preconditions	<ol style="list-style-type: none">1. The user is logged in.2. The user has one or more items in their shopping cart.3. The user has initiated the checkout process but has not completed the order.
Postconditions	<ol style="list-style-type: none">1. The selected items are successfully added to the existing order.2. The total amount and item list in the order are updated accordingly.
Basic Flow	<ol style="list-style-type: none">1. User navigates to the shopping cart.2. User reviews the items currently in the shopping cart.3. User selects the option to "Add to Order".4. System displays the product catalog or relevant section for the user to browse and select additional items.5. The user adds new items to the order by specifying the quantity and confirming the selection.6. The system updates the order summary, displaying the total amount and updated item list.
Alternative Flow	<ol style="list-style-type: none">1. At step 3, If the user attempts to add an item that is already present in the order, the system provides a notification, and the user can adjust the quantity of the existing item in the order or choose a different item.2. At step 6, If a system error occurs while updating the order, the system provides an error message, and the user is prompted to retry the action or seek assistance from customer support.
Special Requirements	<ul style="list-style-type: none">• Efficiently handle real-time updates to the order summary as items are added.• The platform may implement restrictions on adding certain items to an existing order based on product availability or other factors.

Use Case Give Comment and Rating

Use case ID	U44
Name	Give Comment and Rating

Brief Description	Allows registered users to provide feedback by leaving comments and ratings for products or services.
Actor	The Registered Customer who has viewed the product.
Preconditions	<ol style="list-style-type: none">1. The user is logged in.2. The user has purchased or used the product or service they want to comment on.
Postconditions	<ol style="list-style-type: none">1. The user's comment and rating are successfully submitted and recorded in the system.2. The average product/service rating is updated based on the new input.
Basic Flow	<ol style="list-style-type: none">1. User navigates to the product or service page for which they want to leave a comment and rating.2. User selects the option to "Give Comment and Rating".3. System provides a form with fields for the user to enter their comment and select a rating.4. User enters their comment in the designated field.5. User selects the desired rating for the product or service.6. User submits the comment and rating.7. System updates the product or service rating and records the user's comment.
Alternative Flow	<ol style="list-style-type: none">1. In step 3, if the user is not registered, the system will redirect them to the account registration page before proceeding with the subsequent steps.2. In step 6, if the user's comment exceeds the predefined character limit, a notification will be displayed, prompting the user to edit and shorten their comment.3. In step 7, if the system fails to record the user's contribution, the user has the option to send a report to the admin.
Special Requirements	<ul style="list-style-type: none">• Allowed to edit or delete their comments within a specified timeframe.• Have adequate moderation tools to manage and filter inappropriate or abusive comments.• The platform implements features such as displaying the most relevant or helpful comments first based on user feedback.

Use Case Search for Buyer

Use case ID	U45
Name	Search for Buyer
Brief Description	Take responsibility for finding items on the page
Actor	Buyers who have a demand to find products
Preconditions	Have a buyer account and logged in
Postconditions	Information on a list of products relevant to the keyword.
Basic Flow	<ol style="list-style-type: none">1. Enter the search term in the search bar.2. Choose filters based on your criteria.3. Press enter or click on the magnifying glass icon.
Alternative Flow	<ol style="list-style-type: none">1. In step 3, if the keyword is not found in the sales data, it will return the status "No products found."2. In step 3, if there are no criteria matching the products you are looking for, it will return the status "No products found."
Special Requirements	<ol style="list-style-type: none">1. Return search results within 2 seconds to the user.2. Update filters periodically to ensure they always match the user's criteria.

Use Case Check Out

Use case ID	U46
Name	Check Out
Brief Description	Facilitates the completion of a customer's purchase on an e-commerce platform.
Actor	The buyer has just bought something on the website.
Preconditions	<ol style="list-style-type: none">1. The customer has items in their shopping cart.2. The customer is logged into their account.3. The customer has provided the necessary shipping and payment information.
Postconditions	<ol style="list-style-type: none">1. The customer's order is successfully processed.2. The payment is confirmed.3. An order confirmation is sent to the customer.
Basic Flow	<ol style="list-style-type: none">1. The customer navigates to the checkout page.2. The system displays the summary of items in the cart, the total cost, and prompts the customer to provide shipping information.3. The customer enters the shipping details.4. The system calculates and displays shipping costs.5. The customer selects a payment method.6. The customer provides payment details.7. The system processes the payment and confirms the order.8. An order confirmation page is displayed to the customer.9. An email confirmation is sent to the customer.
Alternative Flow	<ol style="list-style-type: none">1. At step 2, If an item in the cart is out of stock, the system notifies the customer and allows them to remove or replace the item.2. At step 3, If the shipping information is incomplete or incorrect, the system prompts the customer to correct it before proceeding.3. At step 7, if there is an issue with the payment process, the system notifies the customer and provides instructions to resolve the issue.
Special Requirements	<ul style="list-style-type: none">• Secure handling of payment information.• Compatibility with various browsers and devices.• Real-time inventory management to handle stock availability.

Use Case Log Out

Use case ID	U47
Name	Log out

Brief Description	This use case describes the steps involved in logging out of a system.
Actor	account owner
Preconditions	The user must be currently logged in to the system.
Postconditions	The user is successfully logged out, and access to secure sections is restricted.
Basic Flow	<ol style="list-style-type: none">1. The user navigates to the logout option in the user interface.2. The system terminates the user's session.3. The user is redirected to the login page or a confirmation screen.
Alternative Flow	<ol style="list-style-type: none">1. If the user tries to log out without being logged in, an error message is displayed.2. If the user does not want to log out, they can return to the main screen
Special Requirements	<ul style="list-style-type: none">• The system should provide a secure logout mechanism to protect user data.• Any unsaved changes or incomplete transactions should be appropriately handled before logging out.

Use Case Browse Product for Guest

Use case ID	U48
Name	Browse product for guest
Brief Description	aims to provide a seamless and user-friendly browsing experience for individuals who have not yet created an account on the platform.
Actor	Guest user (non-registered account)
Preconditions	The user is not logged in and does not have an existing account on the platform.
Postconditions	<ol style="list-style-type: none">1. The guest user can browse products without the need to log in or create an account.2. No changes are made to the user's account status or information.
Basic Flow	<ol style="list-style-type: none">1. The guest user accesses the product browsing section.2. The system presents a selection of products, categories, or featured items available for browsing.3. The guest user now can navigate through different product categories, view product details, and access relevant information without the need to log in.
Alternative Flow	<ol style="list-style-type: none">1. At step 1, before transitioning to the product viewing page, the system may suggest guest users register for an enhanced browsing experience.2. At step 3, if the guest user wishes to add products to their cart or proceed with the purchase, the system will seamlessly transition to the account registration page.
Special Requirements	<ul style="list-style-type: none">• To ensure the best user experience, optimize page load times for swift responsiveness.• To ensure the security of user data, preventing any information leakage.

Use Case Search Product for Guest

Use case ID	U49
Name	Search product for guest
Brief Description	allows non-registered users (guests) to search and find specific products on an online platform without the need for account creation or login.
Actor	Guest user (non-registered account)
Preconditions	The user is not logged in and does not have an existing account on the platform.
Postconditions	<ol style="list-style-type: none">1. The guest user can view a list of search results containing products matching the search query.2. No changes are made to the user's account status or information.
Basic Flow	<ol style="list-style-type: none">1. The guest user accesses the search functionality on the platform.2. The system presents a search bar where the guest user can enter keywords or phrases related to the desired product.3. The guest user inputs the search query and initiates the search.4. The system retrieves and displays a list of relevant products based on the search query.
Alternative Flow	<ol style="list-style-type: none">1. At step 3, in case the search query does not yield any results, the system provides clear feedback to the guest user and may suggest alternative keywords or offer related product recommendations.2. At step 3, If the guest user decides to create an account, they can seamlessly transition from guest mode to registered user mode without losing their search history.
Special Requirements	<ul style="list-style-type: none">• To ensure the best user experience, optimize page load times for swift responsiveness.• To ensure the security of user data, preventing any information leakage.