PotPal

Use-Case Specification

Version 1.2

Revision History

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# Use-case Model

# Use-case Specifications

## Use-case: Manage coupons

| Use case Name | Manage coupon |
| --- | --- |
| Brief description | This use case allows an admin to create, read, update, and delete coupons within the system, enabling control over available discounts for customers. |
| Actors | Admin |
| Basic Flow | 1. The admin logs into the system. 2. The admin selects the option to manage coupons. 3. The system displays a list of existing coupons. 4. The admin can choose to: 5. **Create** a new coupon by entering details (e.g., discount percentage, expiration date, etc.). 6. **Read** (view) an existing coupon’s details. 7. **Update** an existing coupon by modifying its details. 8. **Delete** an existing coupon.   5. The system updates the coupons list and status. |
| Alternative Flows | **Alternative flow 1: No existing coupons in the system**   1. The system displays a message indicating that there are no available coupons. 2. Move to the #4 of the basic flow, but there is only the Create option.   **Alternative flow 2: Invalid coupon details entered during creation or update**   1. The system displays an error message and prompts the admin to correct the information. 2. Move back to #3 of the basic flow. |
| Pre-conditions | The admin is logged into the system. |
| Post-conditions | The coupon list is updated with the new, modified, or deleted coupons based on the admin's actions. |

## Use-case: Enable/Disable Coupon

| Use case Name | Enable/disable coupon |
| --- | --- |
| Brief description | This use case allows an admin to enable or disable a coupon in the system, controlling its availability for customer use. |
| Actors | Admin |
| Basic Flow | 1. The admin logs into the system. 2. The admin navigates to the list of available coupons. 3. The admin selects a specific coupon to manage. 4. The admin chooses to either: 5. **Enable** the coupon, making it available for customers to use. 6. **Disable** the coupon, preventing it from being applied by any customers. 7. The system updates the coupon’s status accordingly. |
| Alternative Flows | **Alternative flow 1: No existing coupons in the system**   * The admin can go to the basic flow of Manage coupon or exit.   **Alternative flow 2: The admin enable/disable an already enabled/disabled coupon**   * The system displays a message indicating the current status of the coupon has already been enabled/disabled. |
| Pre-conditions | The admin is logged into the system. |
| Post-conditions | The coupon status is updated in the system, either enabling or disabling it for customer use. |

## Use-case: Manage selling items

| Use case Name | Manage selling items |
| --- | --- |
| Brief description | This use case allows an admin to manage items available for sale in the system. The admin can perform various operations such as creating, reading, updating, and deleting items, as well as adjusting item quantities, viewing the full list, and searching for items by name or ID. |
| Actors | Admin |
| Basic Flow | 1. The admin logs into the system. 2. The admin navigates to the "Manage Selling Items" section. 3. The system displays a list of all items available for sale. 4. The admin can choose to: 5. **Create** a new item by entering its details (e.g., name, description, price, quantity, etc.). 6. **Read** (view) details of a specific item by selecting it from the list. 7. **Update** an item’s details (e.g., name, description, price) as necessary. 8. **Delete** an item from the list, removing it from the system. 9. **Change Quantity** of an item by adjusting the available stock. 10. **View List** of all items currently available for sale. 11. **Search** for an item by entering keywords, such as name or ID.   5. The system updates the list based on the admin's actions. |
| Alternative Flows | **Alternative flow 1: Attempt to create an item with invalid or missing details:**   * The system displays an error message and prompts the admin to correct the information.   **Alternative Flow 2: No items match the search criteria:**   1. The system displays a message indicating that no items were found based on the search criteria. 2. The admin can exit or back to #4 of the basic flow   **Alternative Flow 3: No existing items in the system:**   1. The system displays a message indicating there are no available items. 2. Move to the #4 of the basic flow, but there is only the Create option. |
| Pre-conditions | The admin is logged into the system. |
| Post-conditions | The item list is updated based on the admin’s actions, reflecting any new, modified, or deleted items, as well as changes to item quantities. |

## Use-case: Manage selling item detail

| Use case Name | Manage item detail and specifications |
| --- | --- |
| Brief description | This use case allows an admin to manage detailed information and specifications for each item available for sale. The admin can add, update, or remove details and specifications, providing customers with accurate and up-to-date information. |
| Actors | Admin |
| Basic Flow | 1. The admin logs into the system. 2. The admin navigates to the "Manage Selling Items" section. 3. The admin selects a specific item from the list to view its details and specifications. 4. The admin can perform the following actions: 5. **Add Details and Specifications**: Enter information such as dimensions, weight, materials, technical specifications, and other relevant attributes. 6. **Update Details and Specifications**: Modify existing information to reflect changes in the item’s specifications. 7. **Remove Details and Specifications**: Delete obsolete or incorrect information from the item’s details and specifications. 8. The system saves and updates the item’s information based on the admin’s actions. |
| Alternative Flows | **Alternative flow 1: Nothing is in the list**   1. The system displays a message indicating that there is no item on the list. 2. The admin can exit or go to the basic flow of Manage selling items.   **Alternative Flow 2: Attempt to add or update details with invalid or incomplete information**   * The system displays an error message and prompts the admin to correct the information. |
| Pre-conditions | The admin is logged into the system. |
| Post-conditions | The item's details and specifications are updated, ensuring that accurate information is available to customers. |

## Use-case: Manage customer accounts

| Use case Name | Manage customer accounts |
| --- | --- |
| Brief description | This use case allows an admin to manage customer accounts in the system. The admin can view account details, search for specific customers by name or ID, and update account information as needed. |
| Actors | Admin |
| Basic Flow | 1. The admin logs into the system. 2. The admin navigates to the "Manage Customer Accounts" section. 3. The system displays a list of all registered customer accounts. 4. The admin can perform the following actions: 5. **View** customer account details, such as name, email, phone number, address, and account status. 6. **Search** for a specific customer by entering keywords, such as customer name or account ID. 7. **Update** customer account information (e.g., contact details, address, account status). 8. The system saves and updates the customer account based on the admin’s actions. |
| Alternative Flows | **Alternative Flow 1: No customer accounts match the search criteria.**   * The system displays a message indicating that no accounts were found based on the search criteria.   **Alternative Flow 2: Invalid data entered during the update process.**   * The system displays an error message and prompts the admin to correct the information. |
| Pre-conditions | The admin is logged into the system. |
| Post-conditions | The customer account list is updated, reflecting any changes made to customer information. |

## Use-case: Manage customer info

| Use case Name | Manage customer info |
| --- | --- |
| Brief description | This use case allows an admin to manage metadata for customer accounts, including access to shopping history and other relevant information. The admin can view, search, and update customer metadata to understand customer activity and enhance customer service. |
| Actors | Admin |
| Basic Flow | 1. The admin logs into the system. 2. The admin navigates to the "Manage Customer Accounts" section. 3. The admin navigates to the "Manage Customer Info" section. 4. The system displays a list of customer’s basic metadata, including recent shopping activity, account creation date, and purchase frequency. 5. The admin can perform the following actions: 6. **View** metadata and shopping history for a specific customer, including details like purchase dates, items bought, and total spending. 7. **Search** for a specific customer by name or account ID to quickly locate their metadata 8. **Update** customer metadata (e.g., add notes on customer preferences or update flagged information) to improve the customer profile. 9. The system saves any updates made to customer metadata and displays shopping history based on the admin’s actions. |
| Alternative Flows | **Alternative Flow 1: No shopping history available for a specific customer**   * The system displays a message indicating that there is no purchase history for the selected customer. |
| Pre-conditions | The admin is logged into the system.  The customer account exists in the system with relevant metadata and shopping history (if applicable). |
| Post-conditions | The customer’s metadata and shopping history are updated, providing an accurate and comprehensive view of the customer's activity in the system. |

## Use-case: Disable account

| Use case Name | Disable account |
| --- | --- |
| Brief description | This use case describes how the Admin can disable an customer account |
| Actors | Admin |
| Basic Flow | 1. At the homepage, admin click on ‘customers’ button 2. Admin clicks on 1 customer 3. Admin clicks on button ‘Disable Account’ |
| Alternative Flows | **Alternative flow 1: That account has already been disabled**   1. At #3 in the basic flow, admin click ‘Enable Account’ 2. Continue #3 in the basic flow |
| Pre-conditions | Admin logins and goes to homepage and then goes to customers area |
| Post-conditions | The customer successfully disable an account |

## Use-case: Manage order

| Use case Name | Manage order |
| --- | --- |
| Brief description | This use case allows an admin to manage customer orders in the system. The admin can view the list of all orders, search for specific orders, and update order status or order information as necessary. |
| Actors | Admin |
| Basic Flow | 1. The admin logs into the system. 2. The admin navigates to the "Manage Orders" section. 3. The system displays a list of all customer orders, showing key details (e.g., order ID, customer name, order date, order status). 4. The admin can perform the following actions:    1. **View Order List** to see all orders in the system.    2. **Search** for a specific order by entering keywords, such as order ID or customer name.    3. **Update Status** of a specific order (e.g., change status from "Processing" to "Shipped" or "Delivered").    4. **Update Order Info** such as delivery address, contact information, or any specific notes related to the order. 5. The system saves and reflects any updates made to the order status or order information. |
| Alternative Flows | **Alternative Flow 1: No orders match the search criteria**   * The system displays a message indicating that no orders were found based on the search criteria.   **Alternative Flow 2: Invalid data entered during the update process**   * The system displays an error message and prompts the admin to correct the information. |
| Pre-conditions | The admin is logged into the system. |
| Post-conditions | The order list is updated, showing any modifications made to the order status or information. |

## Use-case: Login

| Use case Name | Login |
| --- | --- |
| Brief description | The login use case allows a registered customer to access their account on the laptop-selling e-commerce website. |
| Actors | Customer |
| Basic Flow | 1. The customer navigates to the login page of the website. 2. The customer enters their customer name/email and password in the login box 3. The customer clicks on the "Login" button. 4. If the account and password are valid, the customer is now logged in and can access personalized features. |
| Alternative Flows | **Alternative flow 1: The customer enter invalid customer name or password**   1. The system displays an error message ("Invalid customer name or password"). 2. The customer is prompted to try logging in again.   **Alternative flow 2: The customer forgot password**   1. The customer clicks on the "Forgot Password" link. 2. The customer follows instructions in the email to reset their password. 3. The customer returns to login page, continue from #1 in the Basic Flow. |
| Pre-conditions | The customer has an active, registered account on the website and is on the website login page. |
| Post-conditions | The customer is logged in and redirected to the homepage or account dashboard. |

## Use-case: Manage item in cart

| Use case Name | Manage item in cart |
| --- | --- |
| Brief description | This use case allows a customer to manage the items they intend to purchase by adding, removing, or modifying the quantity of laptops in their shopping cart. |
| Actors | Customer |
| Basic Flow | 1. The customer navigates to a product page and clicks on the "Add to Cart" button to add a laptop to the cart. 2. The customer may go to the cart page and view the list of items they have added. 3. On the cart page, the customer can do one of these action:    1. Increase or decrease the quantity of each item.    2. Remove any item they no longer wish to purchase. |
| Alternative Flows | **Alternative flow 1: Adding Duplicate Items**   1. The quantity of the item in the cart increases instead of adding a separate entry. 2. The cart's total price is adjusted.   **Alternative flow 2: Insufficient Stock**   1. A message indicating that the desired quantity exceeds available stock. 2. The system allows the customer to add only the maximum quantity available.   **Alternative flow 3: Removing All Items**   1. The customers press the button to remove all items in the cart. 2. Current cart will be empty. 3. Customers can continue shopping or leave.   **Alternative flow 4: Empty Cart**   1. The system displays an icon or picture indicating that the cart is empty. 2. The customer can return to the shopping page and continue the session. |
| Pre-conditions | The customer has logged in and navigated to the cart component. |
| Post-conditions | The customer’s cart reflects the updated selection of items and quantities. |

## Use-case: View cart

| Use case Name | View cart |
| --- | --- |
| Brief description | This use case allows a customer to view the contents of their shopping cart. |
| Actors | Customer |
| Basic Flow | 1. The customer navigates to the cart page by clicking on the "Cart" icon or a "View Cart" button. 2. The system displays all items currently in the customer’s cart, with the following details:    1. Product name and image    2. Price per item    3. Quantity selected    4. Subtotal for each item (price per item \* quantity)    5. Total price for all items in the cart. 3. The customer reviews the cart contents |
| Alternative Flows | **Alternative flow 1: Empty Cart**   1. The system displays an icon or picture indicating that the cart is empty. 2. The customer can return to the shopping page and continue the session. |
| Pre-conditions | The customer has logged in and navigated to the cart component. |
| Post-conditions | The customer sees a summary of their cart’s contents. |

## Use-case: Check out

| Use case Name | Check out |
| --- | --- |
| Brief description | This use case allows a customer to complete their purchase. |
| Actors | Customer |
| Basic Flow | 1. The customer clicks the "Checkout" button. 2. The customer is redirected to the checkout page. 3. The customer fills out payment methods and shipping strategies. 4. The customer reviews the order details and clicks "Place Order" to confirm the purchase. 5. The customer receives a confirmation with the order summary. |
| Alternative Flows | **Alternative flow 1: Payment Failure**   1. The system displays an error message explaining the issue. 2. The customer can re-enter payment details or try a different payment method. |
| Pre-conditions | The customer has logged in, has at least one item in their cart and has a valid payment method. |
| Post-conditions | **Successful Checkout**: The order is confirmed, and the customer receives an order confirmation page and email.  **Unsuccessful Checkout**: The order is not completed, and the customer is informed of any issues, allowing them to retry or adjust details. |

## Use-case: Use a coupon

| Use case Name | Use a coupon |
| --- | --- |
| Brief description | This use case allows a customer to choose a coupon during checkout to receive a discount on their order. |
| Actors | Customer |
| Basic Flow | 1. The customer proceeds to the checkout page and reviews their order summary. 2. The customers choose the ‘select a coupon’ button. 3. A list of available coupons appears. 4. The customer scroll down to find available coupons and click select. 5. The system verifies the coupon code’s validity, terms, and expiry date. 6. If valid, the system applies the discount to the order total and displays the updated price. 7. The customer continues with the checkout process. |
| Alternative Flows | **Alternative flow 1: Invalid Coupon Code**   1. The system displays messages such as ‘invalid coupon’ or ‘condition not met’ or ‘coupon already been used’. 2. The customer can go back to the #2 of the basic flow.   **Alternative flow 2: No Coupon Code**   1. The system displays a message indicating that the customer currently has no coupon. 2. The customer can go back to the #1 of the basic flow. |
| Pre-conditions | The customer has logged in and is at the checkout page with items in their cart. |
| Post-conditions | The coupon is applied, and the customer’s order total reflects the discount. |

## Use-case: Select payment method

| Use case Name | Select payment method |
| --- | --- |
| Brief description | This use case allows a customer to choose a preferred payment method during the checkout process. |
| Actors | Customer |
| Basic Flow | 1. The customer reaches the payment section on the checkout page. 2. The system displays available payment methods (such as credit card, Momo or ZaloPay). 3. The customer selects a payment method from the list. 4. The system displays the necessary fields for the chosen method (card number, balance, …). 5. The customer enters payment details as required by the selected method (password, pin code). 6. The customer reviews their selection and confirms the payment. |
| Alternative Flows | **Alternative flow 1: Payment Method Not Available**   1. The system displays a message indicating the payment method is not available at the moment. 2. The customer back to #2 of the basic flow.   **Alternative flow 2: Insufficient balance**   1. The system displays a message indicating insufficient balance. 2. The customer back to #2 of the basic flow. |
| Pre-conditions | The customer has logged in, has reached the payment section of the checkout process and has items in their cart. |
| Post-conditions | The selected payment method is processed, and the order is confirmed. |

## Use-case: Provide billing information

| Use case Name | Provide billing information |
| --- | --- |
| Brief description | This use case allows a customer to enter or confirm billing information during the checkout process. |
| Actors | Customer |
| Basic Flow | 1. The customer reaches the billing section on the checkout page. 2. The customer is asked to provide billing information such as:    1. Name on the billing account    2. Street address, city, state/province, and ZIP/postal code    3. Country    4. Contact phone number 3. The customer enters the billing information and confirms it. 4. If the information is valid, the system proceeds to the payment section. |
| Alternative Flows | **Alternative flow 1: The billing information has already been filled before**   1. The system keeps memory of customer previous billing information. 2. The customer can review or change any section of the information. 3. The customer confirms and proceeds to payment.   **Alternative flow 2: Missing or invalid Billing Information**   1. The system display message indicates the issue. 2. The customer back to #2 of the basic flow. |
| Pre-conditions | The customer has logged in, has items in their cart and is at the checkout page. |
| Post-conditions | The billing information is saved, and the system proceeds to payment processing. |

## Use-case: Add a product to cart

| Use case Name | Add a product to cart |
| --- | --- |
| Brief description | This use case allows a customer to add selected items to their shopping cart for potential purchase. |
| Actors | Customer |
| Basic Flow | 1. The customer searches for an item or navigates to an item’s detail page. 2. The customer selects the option to add the item to the cart. 3. The system adds the item to the cart and confirms it to the customer. |
| Alternative Flows | **Alternative Flow 1: Item quantity selection**   1. Before adding the item to the cart, the customer specifies the desired quantity. 2. The system adds the specified quantity to the shopping cart.   **Alternative Flow 2: Out of stock**   * If the item is out of stock, the system displays a message notifying the customer. |
| Pre-conditions | The customer is logged in and has found an item to add to the cart. |
| Post-conditions | The item is successfully added to the shopping cart with the specified attributes, and the customer can view or modify the cart later. |

## Use-case: View item detail

| Use case Name | View item detail |
| --- | --- |
| Brief description | This use case allows the Customer to view detailed information about an item before deciding on a purchase. |
| Actors | Customer |
| Basic Flow | 1. The customer searches for an item or selects it from a list. 2. The customer clicks on the item to view detailed information. 3. The system displays item details, including specifications, price, reviews, and availability. |
| Alternative Flows | **Alternative Flow 1: Item has been removed or link is outdated**   1. From Step #3 of the basic flow, if the customer clicks on an item that has been removed from the catalog or the link is outdated. 2. The system displays an error message indicating that the item is no longer available due to an outdated link or removal from the catalog. 3. The customer can either view other suggested items or return to the main page. |
| Pre-conditions | The customer has found an item to view. |
| Post-conditions | The customer gains detailed information to make an informed purchase decision. |

## Use-case: Manage account

| Use case Name | Manage account |
| --- | --- |
| Brief description | This use case allows the Customer to manage their account information, including order history, personal details, contact information. |
| Actors | Customer |
| Basic Flow | 1. The customer login in their account. 2. The customer navigates to the account management section. 3. The customer selects an option to update account details (e.g., order history, contact info, personal info). 4. The system displays the current account information. |
| Alternative Flows | **Alternative flow 1: Customer not logged in**   1. If the customer attempts to access the account management section without being logged in. 2. The system displays a message indicating that login is required to manage account details. 3. The system redirects the customer to the login page. 4. Once logged in, the customer can access the account management section as per the basic flow. |
| Pre-conditions | The customer is logged in and has access to their account settings. |
| Post-conditions | The customer account’s info is updated according to the changes. |

## Use-case: Manage personal info

| Use case Name | Manage personal info |
| --- | --- |
| Brief description | This use case allows the Customer to view and update their personal details, such as name, date of birth, and other relevant personal information. |
| Actors | Customer |
| Basic Flow | 1. The customer logs into the system. 2. The customer navigates to the account management section. 3. The customer selects "Personal Info." 4. The system displays the current personal details. 5. The customer updates the information as desired and submits. 6. The system validates and saves the changes. |
| Alternative Flows | **Alternative flow 1: Invalid data entry**   * If the customer enters invalid information (e.g., incorrect format), the system displays an error message and prompts the customer to correct it. |
| Pre-conditions | The customer is logged in and has access to the account management section. |
| Post-conditions | The updated personal information is saved and reflected in the customer’s account. |

## Use-case: Manage contact info

| Use case Name | Manage contact information |
| --- | --- |
| Brief description | This use case allows the Customer to view and edit their contact information, such as phone number and email address. |
| Actors | Customer |
| Basic Flow | 1. The customer logs into the system. 2. The customer navigates to the account management section. 3. The customer selects "Contact Info." 4. The system displays the current contact information. 5. The customer makes updates to the contact information and submits. 6. The system validates and saves the changes. |
| Alternative Flows | **Alternative flow 1: Verification required for email change**   * If the customer changes their email, the system may send a verification email for confirmation before updating the information. |
| Pre-conditions | The customer is logged in and has access to the account management section. |
| Post-conditions | The updated contact information is saved in the system. |

## Use-case: Delete Account

| Use case Name | Delete account |
| --- | --- |
| Brief description | This use case allows the Customer to permanently delete their account from the system. |
| Actors | Customer |
| Basic Flow | 1. The customer logs into the system. 2. The customer navigates to the account management section. 3. The customer selects "Delete Account." 4. The system displays a confirmation prompt with warnings about data loss. 5. The customer confirms the deletion. 6. The system permanently deletes the account and logs the customer out. |
| Alternative Flows | **Alternative flow 1: Account deletion cancellation**   * The customer may cancel the deletion process at the confirmation prompt, and the account will remain active. |
| Pre-conditions | The customer is logged in and has access to the account management section. |
| Post-conditions | The account is permanently deleted from the system. |

## Use-case: Register as a customer

| Use case Name | Register as a customer |
| --- | --- |
| Brief description | This use-case allows a customer to register as a customer by providing personal information, contact information, and account identification. |
| Actors | Customer |
| Basic Flow | 1. The customer selects the option to register. 2. The system asks the customer to provide personal information (e.g: name and date of birth). 3. The customer enters the required personal information. 4. The system asks the customer to provide contact information (address and phone number). 5. The customer enters the required contact information. 6. The system asks the customer to provide account identification information. 7. The customer enters the required account identification details. 8. The system confirms successful registration. |
| Alternative Flows |  |
| Pre-conditions | * The customer is on the registration page. * The system is online and available for registration. |
| Post-conditions | The customer's details are stored in the system, and the customer can proceed to log in. |

## Use-case: Search for an item

| Use case Name | Search for an item |
| --- | --- |
| Brief description | This use-case allows a registered customer to search for items in the system. |
| Actors | Customer |
| Basic Flow | 1. The customer logs in the system. 2. The customer selects the option to search for an item. 3. The customer enters keywords to search. 4. The system displays a list of items matching the keywords. 5. The customer views the searching results. |
| Alternative Flows | **Alternative flow 1: No item match the search**   * The system displays a message indicating that no items were found. |
| Pre-conditions | The customer is logged in the system. |
| Post-conditions | The customer can view a list of items matching the searching criteria. |

## Use-case: Sort/Filter Items

| Use case Name | Sort/Filter items |
| --- | --- |
| Brief description | This use-case allows a customer to sort and filter items based on specific criteria to find desired products more efficiently. |
| Actors | Customer |
| Basic Flow | 1. The customer logs into the system. 2. The customer selects the option to search for items. 3. The customer chooses sorting or filtering options from the available criteria (e.g., price, brand, laptop specifications, category). 4. The system applies the selected sort/filter options and displays the updated list of items. 5. The customer views the sorted/filtered list. |
| Alternative Flows | **Alternative flow 1: Sorting Options**   * If the customer changes the sorting option, the system re-applies the new sorting criteria and updates the list accordingly.   **Alternative flow 2: Filtering Options**   * If the customer adds or removes filter criteria, the system re-applies the filter options and refreshes the list. |
| Pre-conditions | The customer is logged in and has access to the list of items. |
| Post-conditions | The sorted/filtered list of items is displayed, allowing the customer to make an informed choice. |

## Use-case: Provide personal information

| Use case Name | Provide personal information |
| --- | --- |
| Brief description | This use case allows a customer to enter personal details, including their name and date of birth, to set up or update their account profile. |
| Actors | Customer |
| Basic Flow | 1. Customers select the option to provide personal information during registration or account management. 2. The system asks the customer to enter their full name and date of birth. 3. customer enters her/his required personal information. 4. The system verifies that the provided information meets the format requirements. 5. The system saves the personal information in the customer’s profile. |
| Alternative Flows | **Alternative flow 1: Invalid Input**   1. If the customer enters invalid input (e.g., date of birth in an incorrect format), the system displays an error message. 2. Customer corrects the input, and the system re-validates. |
| Pre-conditions | Customers must be logged into the system or in the process of registration. |
| Post-conditions | * Customer's personal information is saved successfully and linked to their account. * Customer can view or update personal information at any time |

## Use-case: Provide contact information

| Use case Name | Provide contact information |
| --- | --- |
| Brief description | This use case allows a customer to provide their contact details, such as address and phone number, to complete registration or update their profile. |
| Actors | Customer |
| Basic Flow | 1. Customers select the option to provide contact information during registration or while managing their account. 2. The system asks the customer to enter their address and phone number. 3. Customer enters the required information. 4. The system validates the input (e.g., checks for a valid phone number format). 5. The system saves the contact information in the customer’s profile. |
| Alternative Flows | **Alternative flow 1: Invalid input**   1. If the customer enters invalid phone number or address format, the system displays an error message. 2. Customer corrects the input, and the system re-validates. |
| Pre-conditions | Customers must be logged into the system or in the process of registration. |
| Post-conditions | * Customer's contact information is saved successfully and linked to their account. * Customers can view or update personal information at any time. |

## Use-case: Provide account identification

| Use case Name | Provide account identification |
| --- | --- |
| Brief description | This use case allows a customer to provide identification information necessary to verify their identity and complete the registration process or to manage their account. |
| Actors | Customer |
| Basic Flow | 1. Customers select the option to provide account identification during registration or while managing their account. 2. The system prompts the customer to enter identification details (e.g., customer name, email, and a password). 3. Customer enters the required identification details. 4. The system validates the input to ensure it meets format and security requirements (e.g., password complexity). 5. The system saves the account identification information in the customer’s profile. |
| Alternative Flows | **Alternative flow 1: Invalid input**   1. If the customer provides invalid input (e.g., weak password or non-unique customername), the system displays an error message. 2. Customer corrects the input, and the system re-validates. |
| Pre-conditions | Customers must be logged into the system or in the process of registration. |
| Post-conditions | * Customer’s account identification information is saved successfully and linked to their profile. * Customers can use these credentials to log into the system in the future. |

## 

## Use-case: Categorized product search

| Use case Name | Categorized product search |
| --- | --- |
| Brief description | This use case allows a customer to search for relevant products using their designated category. |
| Actors | Customer |
| Basic Flow | 1. Customer uses the filter button or the search by category button. 2. The customer applies filters or chooses several categories to filter relevant products. 3. The system will filter accordingly and will only show to the customer products relevant to selected categories. |
| Alternative Flows |  |
| Pre-conditions | Guests/Customers are on the home page and are searching for products that meet some certain category/criteria. |
| Post-conditions | Guests/Customers are shown a list of products that met selected categories. |

## 

## Use-case: Manage categories

| Use case Name | Manage categories |
| --- | --- |
| Brief description | This use case allows the Admin to create, update, or delete categories to organize items effectively for better user navigation. |
| Actors | Admin |
| Basic Flow | 1. The admin navigates to the Category Management section. 2. The admin chooses an action: Add, Edit, or Delete a category. 3. The system processes the request and updates the category list accordingly. 4. The admin views the updated list of categories. |
| Alternative Flows | **Alternative flow 1: Invalid input**   1. If the Admin provides invalid details (e.g., empty name field or duplicate category name), the system displays an error message. 2. Admin corrects the input, and the system re-validates. |
| Pre-conditions | The admin has logged in and is in the Category section. |
| Post-conditions | The system displays an updated list of categories, reflecting the changes made. |

## 

## Use-case: View order history

| Use case Name | View order history |
| --- | --- |
| Brief description | This use case allows a customer to view their past orders and track the status of each order placed. |
| Actors | Customer |
| Basic Flow | 1. The customer logs into their account. 2. The customer navigates to the "Order History" section from their account dashboard. 3. The system retrieves and displays a list of past orders, including the order ID, order date, products ordered and their status (e.g., "Shipped," "Delivered," "Canceled". 4. The customer selects a specific order to view detailed information. 5. The system displays detailed information about the selected order, including the products purchased, quantities, total cost, shipping address, and order status. 6. The customer can also view shipping progress or track delivery. 7. The customer may also request to cancel or return an order (if eligible, based on order status). |
| Alternative Flows | **Alternative flow 1: No Orders Found**   1. The customer has no previous orders or has not made any purchases. 2. The system displays a message: "You have no order history." 3. The customer is given options to start shopping. |
| Pre-conditions | The customer is logged into their account and has placed at least one order in the system. |
| Post-conditions | **Successful Order History View:**   1. The system displays a list of the customer's past orders with all relevant information. 2. The customer can track orders and view order details.   **Unsuccessful Order History View**   * The system displays an appropriate message (e.g., "No orders found"), and the customer may attempt to resolve the issue or contact support. |

## 

## Use-case: View statistic

| Use case Name | View statistic |
| --- | --- |
| Brief description | This use case allows an admin to view the shop products selling and purchasing statistics for analyzing purposes. |
| Actors | Admin |
| Basic Flow | 1. The admin chooses the View Products Statistic button. 2. The system creates a singleton class pulling all orders that are marked as “Completed”, e.g. orders that have been paid and delivered successfully. 3. The system processes and displays return by day/month/year. The admin may also choose to view the best selling product by day/month/year. |
| Alternative Flows | **Alternative flow 1: No completed orders found**   1. If there are no completed orders on the selected time period, the system will prompt the admin no completed orders are found. 2. The admin may select a different time period (for example switch from today to this month) to view the statistic. |
| Pre-conditions | The admin has logged in. |
| Post-conditions | A statistical description of the shop’s return within a time period is displayed to the admin. |

## 

## Use-case: Send email

| Use case Name | Send email |
| --- | --- |
| Brief description | This use case allows the Admin to compose and send emails to customers or other stakeholders for notifications, updates, or promotional purposes. |
| Actors | Admin |
| Basic Flow | 1. The admin navigates to the "Send Email" section. 2. The admin selects the recipient(s) from the list (or selects all customers' accounts) or enters email addresses manually. 3. The admin composes the email by entering the subject and body text. 4. The admin may select predefined email templates. 5. The admin reviews the email details and clicks "Send." 6. The system sends the email and confirms successful delivery. |
| Alternative Flows | **Alternative Flow 1: No Email Address (when selecting customers manually)**   1. If the admin selects a customer that has yet to provide their email, the system displays an error message. 2. The system continues to the next customer, displays successfully sent or prompts error accordingly. |
| Pre-conditions | The admin has logged into the system. |
| Post-conditions | The system sends an email to the recipient(s). The system only notifies the admin when detected an account with no email address while selecting customers manually, otherwise the system will send out the email and prompt the admin that emails are sent. |

## Use-case: Review product

| Use case Name | Review product |
| --- | --- |
| Brief description | This use case allows a customer to provide feedback on a purchased product by submitting a rating and a comment. |
| Actors | Customer |
| Basic Flow | 1. The customer navigates to the "My Orders" section after logging into their account. 2. The customer selects a completed order containing the product they want to review. 3. The customer clicks on the "Write a Review" button for the product. 4. The customer provides a **rating** (e.g., 1–5 stars). 5. The customer writes a **comment** describing their experience. 6. The customer clicks the "Submit" button. 7. The system saves the review and displays a success message. 8. The review is visible to other customers in the product's review section. |
| Alternative Flows | **Alternative flow 1: Missing Rating or Comment**   1. The customer clicks "Submit" without providing a rating or comment. 2. The system displays a message: "Please provide a rating and comment before submitting your review." |
| Pre-conditions | Customers must be logged into the system.  The customer has purchased the product and the order status is "Completed." |
| Post-conditions | **Successful Review Submission:**   * The system saves the review. * The review is displayed in the product's review section, visible to other customers.   **Unsuccessful Review Submission:**   * The review is not saved, and the customer is informed of any issues, allowing them to retry. |