Use Cases

for

Electronics Store Management System,

Release 1.0

**Version 1.0 approved**

**Prepared by Hoàng Hy**

**Process Impact**

**September 29, 2023**

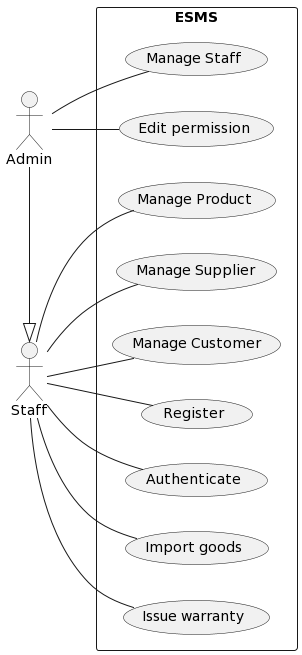
**Revision History**

| **Name** | **Date** | **Reason For Changes** | **Version** |
| --- | --- | --- | --- |
| Hoàng Hy | 29/09/2023 | Initial draft | 1.0 draft 1 |
| Hoàng Giang | 29/09/2023 | Baseline following changes after inspection | 1.0 approved |
| Thành Lộc | 01/11/2023 | Remove duplicated use cases  Add missing use case (UC-25) | 1.0 |

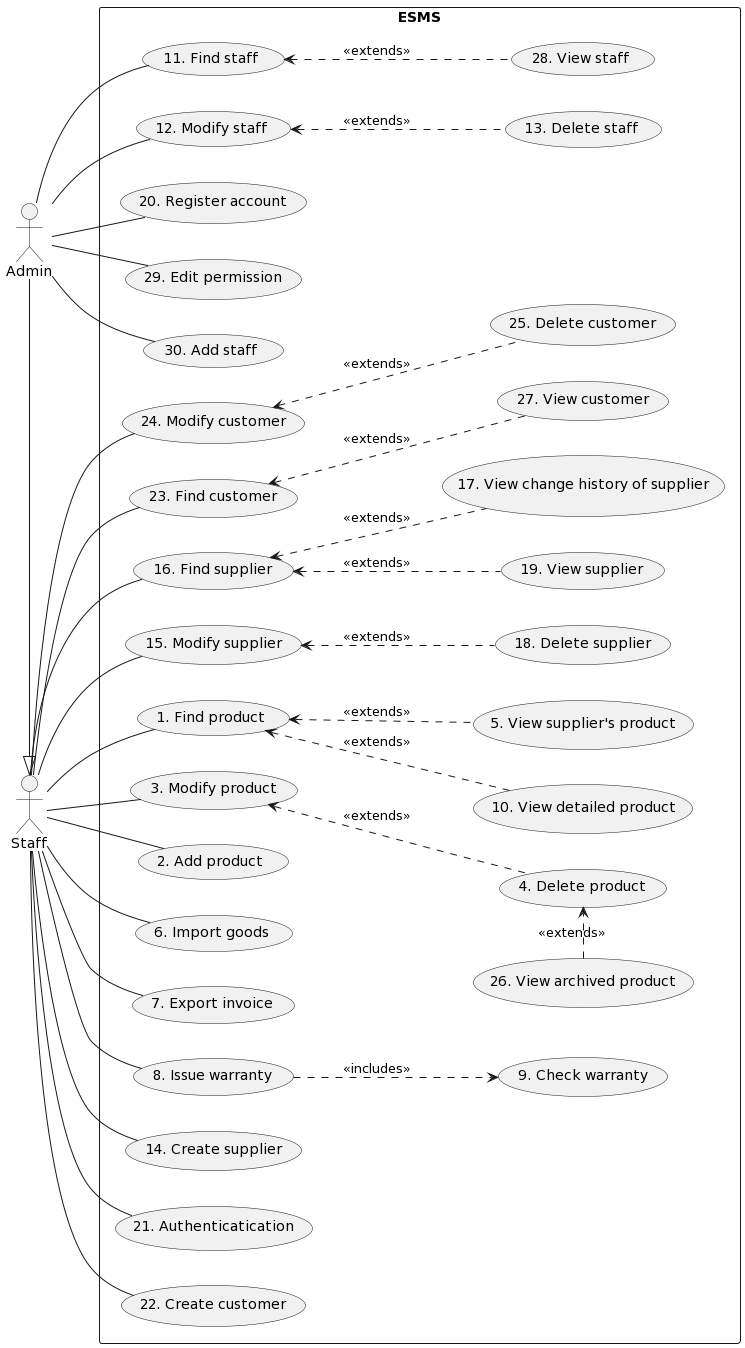
The various user classes identified the following primary actors and use cases for the Electronics Store Management System:

| ***Primary Actor*** | ***Use Cases*** |
| --- | --- |
| Staff | 1. **Find product** 2. **Add product** 3. **Modify product** 4. **Delete product** 5. **View supplier's product** 6. **Import goods** 7. **Export invoice** 8. **Issue warranty** 9. **Check warranty** 10. **View detailed product** 11. **Find staff** 12. **Modify staff** 13. **Delete staff** 14. **Create supplier** 15. **Modify supplier** 16. **Find supplier** 17. **View change history of supplier** 18. **Delete supplier** 19. **View supplier** 20. **Register** 21. **Authentication** 22. **Create customer** 23. **Find customer** 24. **Modify customer** 25. **Delete customer** 26. **View archived product** 27. **View customer** 28. **View staff** |
| Admin | **29. Edit permission**  **30. Add staff** |

**Simplified**:



**Detailed**:



### Use case Specification

| ID and Name: | **UC-1**  **Find product** | | |
| --- | --- | --- | --- |
| Created By: | Hoang Linh | Date Created: | 24/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | This use case allows staff to search for product in the Electronics Store Management System on the product name or filters such as price range and product category. | | |
| Trigger: | A staff indicates that he wants to know information of a product | | |
| Preconditions: | The staff has accessed the ESMS. | | |
| Postconditions: | POST-1. The staff can view the list of found products and the details of each product.  POST-2. The staff can select a product to view detailed information or can perform other actions on the products. | | |
| Normal Flow: | **1.0 Find product**  1. The staff opens the product search feature on the product interface.  2. The system displays the product search interface.  3. The staff enters a search keyword or product name in the search box.  4. The staff clicks the "Search" button or presses the Enter key.  5. The system processes the search request and displays the search results based on the keyword, product name, or filters such as price range and product category.  6. The staff can view the list of found products and the details of each product.  7. The staff can select a product to view detailed information or perform other actions on the products. | | |
| Alternative Flows: | **1.0** **If there are no search results:**  The system displays a notification indicating that no products matching the search criteria were found.  **1.1 If the product** **does not enter a keyword or customer name:**  The system displays a notification requesting the product to enter a keyword or product name to perform the search. | | |
| Exceptions: | **1.0E1 If the search input exceeds the system's maximum character limit:**  E1a. The system displays an error message informing the staff that the search input is too long.  E2a. The staff is prompted to revise the search criteria to fit within the character limit.    **1.0E2 If there is a technical error during the search process:**  E2a. The system encounters an internal error while processing the search request.  E2b. The staff is advised to try the search again later or contact admin support for assistance.    **1.0E3 If the staff’s** **search query contains invalid characters or format:**  E3a. The system detects that the search query includes prohibited characters or does not follow the specified format.  E3b. The system displays an error message indicating the invalid search query.  E3c. The staff is prompted to revise the search query and ensure compliance with the allowed characters and format. | | |

| ID and Name: | **UC-2 Add product** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/09/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When the store begins to sell a new product to the store, the staff need to add the product information to the system to track the product. | | |
| Trigger: | The store begins to sell a new product. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS  PRE-2. Staff has the permission to add new product | | |
| Postconditions: | POST-1. ESMS displays the new product information. | | |
| Normal Flow: | **2.0 Add product**   1. Staff choose to create new product information. 2. Staff enter product information to the system. 3. ESMS confirms that the staff has the valid permission to create a new product information. 4. ESMS checks whether the product name exists. 5. Staff confirms to add the product. 6. ESMS adds the product into the system. | | |
| Alternative Flows: | None | | |
| Exceptions: | **2.0E1 The product name conflicts with an existing product in inventory.**  1. ESMS informs the staff that the name exists.  2a. If the staff choose another name, ESMS restarts the use case.  2b. If the staff cancels the operation, ESMS terminates the use case.  **2.0E2 The product name conflicts with an existing product in the archived product list.**  1. ESMS informs the staff that the name exists, and suggests the staff move the existing product out of the archived list.  2a. If the staff agrees to move the old product out of the archived list, ESMS restores the product.  2b. If the staff declines, ESMS then creates a new product with that name and new information. | | |

| ID and Name: | **UC-3 Modify Product** | | |
| --- | --- | --- | --- |
| Created By: | Le Loc | Date Created: | 09/25/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | The Staff should be able to modify some information of a product e.g., modifying the quantity, the price, the description, updating the product images and saving the modified product. | | |

| ID and Name: | **UC-4 Delete Product** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Hy | Date Created: | 28/09/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | Once the store no longer sell a product, store’s staff will delete it in system, the deleted product will not be permanently deleted but removed to archived product list | | |
| Trigger: | Store want to remove a product | | |
| Preconditions: | PRE-1. Staff is logged into ESMS  PRE-2. Staff has deletion permission of that product | | |
| Postconditions: | POST-1. The staff can view list of archived product list  POST-2. The product is removed in inventory | | |
| Normal Flow: | **4.0 Delete product**   1. Staff opens the search product feature. 2. Staff searches for the product that needs to be removed. 3. ESMS displays all products that match staff’s keywords. 4. Staff chooses which product to be removed. 5. ESMS displays a confirmation message . 6. Staff type product name to confirm the deletion of products. 7. ESMS show deletion status and archived product list. | | |
| Alternative Flows: | None | | |
| Exceptions: | **4.0E1 No product was found**  1. ESMS informs the staff that no product was found.  2a. If the staff cancels the product search, then ESMS terminates the use case.  2b. If the staff search for another keyword, then ESMS restarts the use case. | | |

| ID and Name: | **UC-5 View supplier's product** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | Staff choose a particular supplier to view all of the supplier’s product | | |
| Trigger: | The staff need to inspect the product list of a supplier. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to view the supplier product. | | |
| Postconditions: | POST-1. Product list of a supplier is shown on the screen. | | |
| Normal Flow: | **5.0 View supplier's product**   1. In the detail supplier screen, staff choose to view all products that the supplier supplies 2. ESMS makes sure the staff has the corresponding permission to view all the products of that supplier. 3. ESMS shows all the products of the supplier. | | |
| Alternative Flows: | None | | |
| Exceptions: | None | | |

| ID and Name: | **UC-6 Import goods** | | |
| --- | --- | --- | --- |
| Created By: | Le Loc | Date Created: | 09/25/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When a new supply of goods is imported, the Staff must record that information and export a purchase invoice of the transaction. | | |
| Preconditions | PRE-1. Staff is logged into ESMS. | | |
| Normal Flow: | **6.0 Import goods**   1. Staff chooses the option to Import goods. 2. ESMS automatically generates an ID for the invoice and records the info of the Staff. 3. Staff enters the information of the agency. 4. Staff chooses the supplier from the recorded suppliers. 5. Staff manually enters the information of all the goods (name, price, quantity). 6. ESMS calculates the total of the entire transaction. 7. Staff chooses the payment method that they used when paying the supplier. 8. Staff confirms that all information is entered. 9. Staff chooses to update the in-stock products. 10. ESMS updates the in-stock products. 11. ESMS exports a purchase invoice. 12. ESMS informs Staff that the process is complete. | | |
| Alternative Flows: | **6.1 Supplier is not recorded (step 3.0.4.)**  4. Staff creates a new supplier  Repeat 4 to end of 6.0  **6.2 Staff chooses not to update the in-stock products.**  Skip step 6.0.10 | | |
| Other Information: | Expect a high frequency of executing this use case within the first 2 weeks after the system is released. | | |

| ID and Name: | **UC-7** **Export Invoice** | | |
| --- | --- | --- | --- |
| Created By: | Hoang Linh | Date Created: | 24/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | This use case describes the process of creating and recording an export invoice for sales purpose. | | |
| Trigger: | An staff wants to export invoice for sales purpose for him or for customer. | | |
| Preconditions: | Information about the components to be exported is available.  Information about the buyer and seller is available. | | |
| Postconditions: | POST1 - The export invoice is successfully created and stored in the system.  POST2 - The export invoice contains accurate and complete information about the buyer, seller, components, payment details, and any applied promotions or discounts.  POST3 - The total amount of the invoice is correctly calculated based on the component prices and quantities. | | |
| Normal Flow: | **1.0 Edit access rights / permission**  1. The staff accesses the create invoice interface.  2. The staff enters information about the buyer  3. The staff enters information about the seller  4. The staff enters general information:  - Invoice creation time.  - Payment method (Cash, bank transfer).  - Applied promotions or discounts (if any).  5. The staff adds information about the exported components:  - Component name.  - Quantity of components.  - Component unit price.  - Subtotal (automatically calculated). | | |
| Alternative Flows: | **2.0** **If the sales representative or invoice administrator wants to cancel the invoice creation:**  The system provides a cancellation option, allowing the staff to stop the creation process without saving the incomplete invoice. | | |
| Exceptions: | **1.0E1 If required fields are not filled:**  The system displays an error message requesting to fill in the required information.  The staff is prompted to re-enter the necessary information.    **1.0E2 If the invoice cannot be saved due to a system error:**  The system displays an error message and recommends staff to retry later or contact the admin for assistance. | | |

| ID and Name: | **UC-8. Issue warranty** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Hy | Date Created: | 28/09/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When a customer goes into the store for a product warranty, the staff will check the warranty period of the product to make sure the product qualifies for the warranty, if the product qualifies for the warranty, ESMS issues warranty for that product. | | |
| Trigger: | A customer goes into the store for a product warranty. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS  PRE-2. The product qualifies for the warranty. | | |
| Postconditions: | POST-1. Warranty invoice is exported. | | |
| Normal Flow: | **8.0. Issue warranty**   1. Staff search for the product warranty status. 2. ESMS shows the warranty status of the product. 3. ESMS exports the warranty invoice and adds a new warranty history for that product. | | |
| Alternative Flows: | None | | |
| Exceptions: | **8.0E1 The warranty status is invalid.**  1. ESMS informs the staff that the warranty status is invalid.  2a. If the customer has a valid warranty card, then the staff will create a new customer profile and add product warranty information to the system.  2b. Else the staff refuse to export the warranty invoice for the product and cancels the use case. | | |

| ID and Name: | **UC-9 Check warranty** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Hy | Date Created: | 28/09/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When a customer goes into the store for a product warranty, the staff will check the warranty period of the product to make sure the product is qualified for the warranty. | | |
| Trigger: | A customer goes into the store for a product warranty. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS | | |
| Postconditions: | POST-1. The warranty period of the product is displayed on the screen.  POST-2. Display the warranty status of the product. | | |
| Normal Flow: | **9.0 Check warranty**   1. Staff searches for the customer profile. 2. Staff finds the product in the purchased product list of the customer by product name. 3. ESMS shows warranty date, warranty history and warranty status of the product. | | |
| Alternative Flows: | None | | |
| Exceptions: | **9.0E1 Customer not found.**  1. ESMS informs the staff that the customer profile was not found.  2. The staff asks the customer to show the warranty card.  3a. If the warranty card is valid, create a new customer profile and add the product warranty information to the system based on the warranty card.  3b. Else ESMS rejects the warranty for that product, ESMS terminates the use case.  **9.0E2 The product was not found**  1. ESMS informs the staff that the product was not found in the customer’s purchased product list.  2. The staff asks the customer to show the warranty card.  3a. If the warranty card is valid, add the product warranty information to the system based on the warranty card.  3b. Else ESMS rejects the warranty for that product, ESMS terminates the use case. | | |

| ID and Name: | **UC-10. View detailed product** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | View detailed information about a product | | |
| Trigger: | The staff need to inspect product information. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to view the product information. | | |
| Postconditions: | POST-1. Product ìnformation (name, category, price, quantity, supplier information) is shown on the screen. | | |
| Normal Flow: | **10. View detailed product**   1. Staff search for product name. 2. ESMS displays all matched products. 3. Staff choose a product to view their information. | | |
| Alternative Flows: | None | | |
| Exceptions: | **10.0E1 No product was found.**  1. ESMS informs the staff that no product was found.  2a. If the staff cancels the search, then ESMS terminates the use case.  2b. If the staff searches for another product, then ESMS restarts the use case. | | |

| ID and Name: | **UC-11**  **Find staff** | | |
| --- | --- | --- | --- |
| Created By: | Hoang Linh | Date Created: | 24/9/2023 |
| Primary Actor: | Admin | Secondary Actors: | Electronics Store Management System |
| Description: | This use case allows admin to search for staff in the Electronics Store Management System based on the staff name or staff ID. | | |
| Trigger: | A admin indicates that he wants to know information of a staff | | |
| Preconditions: | The admin has accessed the ESMS. | | |
| Postconditions: | POST-1. The admin can view the list of found staffs and the details of each staff.  POST-2. The admin can select a staff to view detailed information or can perform other actions on the staffs. | | |
| Normal Flow: | **1.0 Find staffs**  8. The admin opens the staff search feature on the staff interface.  9. The system displays the staff search interface.  10. The admin enters a search keyword or staff name in the search box.  11. The admin clicks the "Search" button or presses the Enter key.  12. The system processes the search request and displays the search results based on the keyword, staff name or staff ID.  13. The admin can view the list of found staffs and the details of each staff.  14. The admin can select a staff to view detailed information or perform other actions on the staffs. | | |
| Alternative Flows: | **3.0** **If there are no search results:**  The system displays a notification indicating that no staffs matching the search criteria were found.  **1.1 If the admin does not enter a keyword or staff** **name:**  The system displays a notification requesting the admin to enter a keyword or staff name to perform the search. | | |
| Exceptions: | **1.0E1 If the search input exceeds the system's maximum character limit:**  E1a. The system displays an error message informing the admin that the search input is too long.  E2a. The admin is prompted to revise the search criteria to fit within the character limit.    **1.0E2 If there is a technical error during the search process:**  E2a. The system encounters an internal error while processing the search request.  E2b. The admin is advised to try the search again later    **1.0E3 If the staff's search query contains invalid characters or format:**  E3a. The system detects that the search query includes prohibited characters or does not follow the specified format.  E3b. The system displays an error message indicating the invalid search query.  E3c. The staff is prompted to revise the search query and ensure compliance with the allowed characters and format. | | |

| ID and Name: | **UC-12 Modify Staff** | | |
| --- | --- | --- | --- |
| Created By: | Le Loc | Date Created: | 09/25/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | The admin should be able to modify some information of a staff e.g., modifying their name, ID number, phone number, e-mail address, and saving the modified staff. | | |

| ID and Name: | **UC-13. Delete staff** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Hy | Date Created: | 28/9/2023 |
| Primary Actor: | Admin | Secondary Actors: | Electronics Store Management System |
| Description: | When a staff no longer work for the store, admin need to delete staff account from system | | |
| Trigger: | Admin want to delete staff account | | |
| Preconditions: | PRE-1. Admin is logged into ESMS  PRE-2. Admin has permission to delete staff | | |
| Postconditions: | POST-1. Deleted staffs can not use their account to logged into the ESMS  POST-2. Admin can view detailed information about deleted staff | | |
| Normal Flow: | **13.0 Delete staff**   1. Admin opens the search staff feature. 2. Admin searches for the staff that need to be removed. 3. ESMS displays all staff that match keywords. 4. Admin chooses which staff to be removed. 5. ESMS displays a confirmation message. 6. Admin type staff name to confirm the deletion. 7. ESMS show deletion status and deleted staff information. | | |
| Alternative Flows: | None | | |
| Exceptions: | **13.0E1 No staff was found.**  1. ESMS informs the admin that no staff was found.  2a. If the admin cancels the product search, then ESMS terminates the use case.  2b. If the admin searches for another keyword, then ESMS restarts the use case.  **13.0E2 Admin has no permission to delete that staff.**  1. ESMS informs the admin that he has no permission to delete that staff.  2a. If the admin searches for another staff member, then ESMS restarts the use case.  2b. If the admin cancels the staff search, ESMS terminates the use case. | | |

| ID and Name: | **UC-14. Create supplier** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When the store starts importing products from a new supplier, the staff is responsible for uploading supplier information into the system. | | |
| Trigger: | The store starts importing products from a new supplier. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to create a new supplier.  PRE-3. Supplier name doesn’t conflict with other supplier names. | | |
| Postconditions: | POST-1. New supplier information was added into the ESMS.  POST-2. ESMS displays supplier information to the screen. | | |
| Normal Flow: | **14.0. Create supplier**   1. Staff choose to create a new supplier. 2. Staff enter supplier information into the registration form. 3. ESMS checks whether the new supplier information conflicts with other suppliers. 4. Staff confirms to create the new supplier. 5. ESMS adds that supplier to the system and sends a verification email to the supplier. | | |
| Alternative Flows: | None | | |
| Exceptions: | **14.0E1 Supplier name/email/phone has been registered by another supplier.**  1. ESMS informs the staff that a supplier has already used that information.  2a. If the staff cancels the search, then ESMS terminates the use case.  2b. If the staff enters another information for that supplier, ESMS restarts the use case.  **14.0E2 Staff has no permission to create a new supplier.**  1. ESMS informs the staff that he hasn’t enough permission to continue the operation.  2. ESMS cancel the use case. | | |

| ID and Name: | **UC-15 Modify Supplier** | | |
| --- | --- | --- | --- |
| Created By: | Le Loc | Date Created: | 09/25/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | The admin should be able to modify some information of a product e.g., modifying their name, ID, phone number, e-mail address, address, updating images and saving the modified supplier. | | |
| Other Information: | The supplier’s record of their last supply should not be modifiable. | | |

| ID and Name: | **UC-16** **Find supplier** | | |
| --- | --- | --- | --- |
| Created By: | Hoang Linh | Date Created: | 24/9/2023 |
| Primary Actor: | Admin | Secondary Actors: | Electronics Store Management System |
| Description: | This use case allows admin to search for supplier in Electronics Store Management System based on the supplier name or supplier phone number. | | |
| Trigger: | An admin indicates that he wants to know information of a supplier | | |
| Preconditions: | The admin has accessed the ESMS. | | |
| Postconditions: | POST-1. The admin can view the list of found suppliers and the details of each supplier.  POST-2. The admin can select a supplier to view detailed information or can perform other actions on the suppliers. | | |
| Normal Flow: | **16.0 Find suppliers**  1. The admin opens the supplier search feature on the supplier interface.  2. The system displays the supplier search interface.  3. The admin enters a search keyword or supplier name in the search box.  4. The admin clicks the "Search" button or presses the Enter key.  5. The system processes the search request and displays the search results based on the keyword, supplier name or supplier phone number.  6. The admin can view the list of found suppliers and the details of each supplier.  7. The admin can select a supplier to view detailed information, view the list of items it supply or perform other actions on the suppliers. | | |
| Alternative Flows: | **16.2** **If there are no search results:**  The system displays a notification indicating that no suppliers matching the search criteria were found.  **16.1 If the admin does not enter a keyword or staff** **name:**  The system displays a notification requesting the admin to enter a keyword or supplier name / supplier phone number to perform the search. | | |
| Exceptions: | **16.0E1 If the search input exceeds the system's maximum character limit:**  E1a. The system displays an error message informing the admin that the search input is too long.  E2a. The admin is prompted to revise the search criteria to fit within the character limit.    **16.0E2 If there is a technical error during the search process:**  E2a. The system encounters an internal error while processing the search request.  E2b. The admin is advised to try the search again later    **16.0E3 If the staff's search query contains invalid characters or format:**  E3a. The system detects that the search query includes prohibited characters or does not follow the specified format.  E3b. The system displays an error message indicating the invalid search query.  E3c. The staff is prompted to revise the search query and ensure compliance with the allowed characters and format. | | |

| ID and Name: | **UC-17. View change history of supplier** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | Staff responsible for managing inventory regularly review supplier information and change history of supplier to know the latest information about store’s supplier and make sure that there are no unexpected changes made by other staff. | | |
| Trigger: | Staffs responsible for managing inventory review supplier information | | |
| Preconditions: | PRE-1. Staff is logged into ESMS  PRE-2. Staff has corresponding permission to view change history | | |
| Postconditions: | POST-1. Staff can view change history of a supplier | | |
| Normal Flow: | **17.0 View change history of supplier**   1. Staff opens the search feature. 2. Staff searches for the supplier that needs to be viewed by their name. 3. ESMS displays all suppliers that match keywords. 4. Staff chooses which supplier to inspect. 5. ESMS shows a table to show changes of the supplier profile, the changes are sorted descendingly by day. 6. Staff can find a specified day to inspect. 7. ESMS shows only the changes made on that day. | | |
| Alternative Flows: | **17.1 View all changes in one day**   1. Staff choose to filter all changes by day, choose to group by supplier or author of the changes. 2. ESMS lists all changes on that day and group these changes by supplier name or author’s name of the changes (depends on Staff selection)   **17.2 View detailed information about a change**   1. Staff choose a specified change 2. ESMS displays previous state, the changes, the author, time of the changes, notes. | | |
| Exceptions: | **17.0E1 No changes were found.**  1. ESMS informs the staff that no changes were found.  2a. If the staff cancels the search, then ESMS terminates the use case.  2b. If the staff searches for other changes, then ESMS restarts the use case.  **17.0E2 Staff has no permission to view change history.**  1. ESMS informs the staff that he has no permission to view change history.  2. ESMS terminates the use case.  **17.1E1 No changes on that day.**  1. ESMS informs the staff that there are no changes on that day.  2a. If the staff change the day, then ESMS restarts the use case.  2b. If the staff cancel the search, then ESMS displays all changes. | | |
| Other Information: | Expect to execute this use case everyday. | | |

| ID and Name: | **UC-18. Delete supplier** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Hy | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | If the contract with a supplier is expired, it’s needed to delete the supplier from ESMS. | | |
| Trigger: | The staff need to delete a supplier. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to delete suppliers. | | |
| Postconditions: | POST-1. Supplier information will not be shown when other staff search for suppliers by supplier name.  POST-2. Staff can view detailed information about deleted suppliers. | | |
| Normal Flow: | **18.0 Delete supplier**   1. Staff opens the search feature. 2. Staff searches for the supplier’s name that need to be removed. 3. ESMS displays all suppliers that match keywords. 4. Staff chooses which suppliers to be removed. 5. ESMS displays a confirmation message. 6. Staff type suppliers name to confirm the deletion. 7. ESMS show deletion status and deleted supplier information. | | |
| Alternative Flows: | None | | |
| Exceptions: | **18.0E1 No supplier was found.**  1. ESMS informs the staff that no supplier was found.  2a. If the admin cancels the search, then ESMS terminates the use case.  2b. If the admin searches for another keyword, then ESMS restarts the use case.  **18.0E2 Staff has no permission to delete.**  1. ESMS informs the staff that he has no permission to delete that suppliers.  2a. If the staff searches for another supplier, then ESMS restarts the use case.  2b. If the staff cancels the search, ESMS terminates the use case. | | |

| ID and Name: | **UC-19. View supplier** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | View detailed information about a supplier | | |
| Trigger: | The staff need to inspect a supplier profile. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to view the supplier profile. | | |
| Postconditions: | POST-1. Supplier profile (image, supplier name, email, phone, address, note, last import) is shown on the screen. | | |
| Normal Flow: | **19.0 View supplier**   1. Staff search for supplier name. 2. ESMS displays all matched suppliers. 3. Staff choose a supplier to view their profiles. | | |
| Alternative Flows: | **19.1 View supplier in product screen**   1. In the detailed product screen, the staff click the “View supplier information” button. 2. ESMS confirms if the staff has the valid permission to view supplier information. 3. ESMS lists all suppliers that supply the product. 4. The staff choose a supplier to view details. 5. ESMS shows the detailed information about the supplier. | | |
| Exceptions: | **19.0E1 No supplier was found.**  1. ESMS informs the staff that no supplier was found.  2a. If the staff cancels the search, then ESMS terminates the use case.  2b. If the staff searches for another supplier, then ESMS restarts the use case.  **19.1E1 The staff doesn’t have a valid permission**  1. ESMS informs the staff that he doesn’t have a valid permission.  2. ESMS return the staff to the detailed product screen and terminates the use case. | | |

| ID and Name: | **UC-20. Register** | | |
| --- | --- | --- | --- |
| Created By: | Le Loc | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When a new staff joins ESMS, they are required to create a new account before carrying out any action. | | |
| Preconditions: | PRE-1. User is the store’s staff | | |
| Normal Flow: | **20.0 Register**   1. Staff chooses to register a new account. 2. ESMS automatically generates a new account ID. 3. Staff enters their name, phone number, e-mail address and password. 4. Staff confirms that they want to register with the given information. 5. ESMS shows the Term and Condition and asks Staff to agree to it. 6. Staff agrees with the Term and Condition. 7. ESMS creates a new account for Staff and sends an email to their address to verify their email address. | | |
| Other Information: | Expect a high frequency of executing this use case within the first 2 weeks after the system is released. | | |

| ID and Name: | **UC-22. Create customer** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | The first time a customer buys a product from the store, a staff will create a customer profile to save the information about the customer for promotion notification, warranty monitor, …. | | |
| Trigger: | A customer buys products from the store for the first time. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to create customers. | | |
| Postconditions: | POST-1. New customer information was added into the ESMS.  POST-2. ESMS displays customer information to the screen. | | |
| Normal Flow: | **22.0 Create customer**   1. Staff choose to create a new customer. 2. Staff enter the customer information to ESMS. 3. ESMS confirms that the information does not conflict with other customers. 4. Staff confirms that the information entered is correct. 5. ESMS creates the customer profile. | | |
| Alternative Flows: | None | | |
| Exceptions: | **22.0E1 Customer information has already existed.**  1. ESMS informs staff that the information has already existed.  2a. If staff cancels the operation, ESMS terminates the use case.  2b. If staff enters another information, ESMS restarts the use case. | | |

| ID and Name: | **UC-23** **Find customer** | | |
| --- | --- | --- | --- |
| Created By: | Hoang Linh | Date Created: | 24/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | This use case allows staffs to search for customers in the Electronics Store Management System based on the customer name, phone. | | |
| Trigger: | A staff indicates that he wants to know information of a customer. | | |
| Preconditions: | The staff has accessed the ESMS. | | |
| Postconditions: | POST-1. The staff can view the list of found customers and the details of each customer.  POST-2. The staff can select a customer to view detailed information or can perform other actions on the customers. | | |
| Normal Flow: | **23.0** **Find customer**  1. The staff opens the customer search feature on the staff interface.  2. The system displays the customer search interface.  3. The staff enters a search keyword or customer name in the search box.  4. The staff clicks the "Search" button or presses the Enter key.  5. The system processes the search request and displays the search results based on the keyword, customer name, or filters such as price range and customer category.  6. The staff can view the list of found customers and the details of each customer.  7. The staff can select a customer to view detailed information or perform other actions on the customers. | | |
| Alternative Flows: | **23.1** **If there are no search results:**  The system displays a notification indicating that no customers matching the search criteria were found.  **23.2 If the staff does not enter a keyword or customer name:**  The system displays a notification requesting the staff to enter a keyword or customer name to perform the search. | | |
| Exceptions: | **23.0E1 If the search input exceeds the system's maximum character limit:**  E1a. The system displays an error message informing the staff that the search input is too long.  E2a. The staff is prompted to revise the search criteria to fit within the character limit.    **23.0E2 If there is a technical error during the search process:**  E2a. The system encounters an internal error while processing the search request.  E2b. The staff is advised to try the search again later or contact customer support for assistance.    **23.0E3 If the customer’s search query contains invalid characters or format:**  E3a. The system detects that the search query includes prohibited characters or does not follow the specified format.  E3b. The system displays an error message indicating the invalid search query.  E3c. The staff is prompted to revise the search query and ensure compliance with the allowed characters and format. | | |

| ID and Name: | **UC-24 Modify Customer** | | |
| --- | --- | --- | --- |
| Created By: | Le Loc | Date Created: | 09/25/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | The Staff should be able to modify some information of a customer e.g., modifying their name, address, phone number, e-mail address, birthday, gender, ID number, occupation and saving the modified customer. | | |
| Exceptions: | 2.0.E1 The customer is not old enough (Customers should be at least 18 years of age); show an error message and let the Staff enter a new birth date. | | |
| Other Information: | The Customer’s buying history should not be modifiable. | | |

| ID and Name: | **UC-25 Delete Customer** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Hy | Date Created: | 28/09/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When a customer no longer want their information to be stored, staff need to delete the customer from system | | |
| Trigger: | Store want to remove a customer | | |
| Preconditions: | PRE-1. Staff is logged into ESMS | | |
| Normal Flow: | **25.0 Delete customer**   1. Staff opens the search customer feature. 2. Staff searches for the customer that needs to be removed. 3. ESMS displays all customers that match staff’s keywords. 4. Staff chooses which customer to be removed. 5. ESMS displays a confirmation message . 6. Staff type product name to confirm the deletion of customer. 7. ESMS shows deletion status and delete the customer from the system. | | |
| Alternative Flows: | None | | |
| Exceptions: | **25.0E1 No customer was found**  1. ESMS informs the staff that no customer was found.  2a. If the staff cancels the customer search, then ESMS terminates the use case.  2b. If the staff search for another keyword, then ESMS restarts the use case. | | |

| ID and Name: | **UC-26. View archived product** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | After a product is no longer sold, its information is moved to the archived list, staff can view that list and move products out of that list if needed. | | |
| Trigger: | The staff need to view the archived list or move some products out of that list. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to view the list. | | |
| Postconditions: | POST-1. Product list that is no longer sold is displayed on the screen. | | |
| Normal Flow: | **26.0 View archived product list**   1. Staff click the archived list button. 2. ESMS confirms the permission of the staff. 3. ESMS displays all archived products on the screen. | | |
| Alternative Flows: | **26.1 View archived product list after deleted**   1. After the staff deleted some products, a modal will be displayed to show recent deleted products. 2. ESMS confirms the permission of the staff. 3. ESMS displays the list on the screen. | | |
| Exceptions: | **26.1E1 The staff has no valid permission to view the archived list.**   1. ESMS informs the staff that he doesn’t have a valid permission. 2. ESMS shows only the latest deleted product’s information on the modal. 3. ESMS terminates the use case. | | |

| ID and Name: | **UC-27. View customer** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | When a customer comes into the store and buys a product, the staff need to search the customer profile by his name to add the product to the purchased history list. | | |
| Trigger: | A customer buys any product. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to view the customer profile. | | |
| Postconditions: | POST-1. Display customer profile on the screen. | | |
| Normal Flow: | **27.0 Search customer by name and view profile**   1. The staff search the customer by their name. 2. ESMS confirms the permission of the staff. 3. ESMS shows the customer profile on the screen. | | |
| Alternative Flows: | None | | |
| Exceptions: | None | | |

| ID and Name: | **UC-28. View staff** | | |
| --- | --- | --- | --- |
| Created By: | Hoàng Giang | Date Created: | 28/9/2023 |
| Primary Actor: | Staff | Secondary Actors: | Electronics Store Management System |
| Description: | View detailed information about a staff | | |
| Trigger: | The staff need to inspect a staff profile. | | |
| Preconditions: | PRE-1. Staff is logged into ESMS.  PRE-2. Staff has permission to view the staff profile. | | |
| Postconditions: | POST-1. Staff profile (fullname, email, phone, image, ID) is shown on the screen. | | |
| Normal Flow: | **28.0 View staff**   1. Staff search for staff names. 2. ESMS displays all matched staff. 3. Staff choose a staff to view his profiles. | | |
| Alternative Flows: | None | | |
| Exceptions: | **28.0E1 No staff was found.**  1. ESMS informs the staff that no staff was found.  2a. If the staff cancels the search, then ESMS terminates the use case.  2b. If the staff searches for another staff, then ESMS restarts the use case. | | |

| ID and Name: | **UC-29** **Edit access rights / permission** | | |
| --- | --- | --- | --- |
| Created By: | Hoang Linh | Date Created: | 24/9/2023 |
| Primary Actor: | Admin | Secondary Actors: | Electronics Store Management System |
| Description: | This use case allows admin to edit access rights for staffs in Electronics Store Management System such as information access rights, editable permission for each staff. | | |
| Trigger: | An staff wants to modify the permissions owned by that staff. | | |
| Preconditions: | The admin has accessed the ESMS. | | |
| Postconditions: | The permissions or access rights of the owner staff are modified. | | |
| Normal Flow: | **1.0 Edit access rights / permission**  1. The admin accesses the permission management interface.  2. The admin selects the staff whose permissions need to be modified.  3. The admin selects the permissions from permission list to assign for the staff. Or admin can modify / delete the permissions the staff have.  4. The admin saves the modifications. | | |
| Alternative Flows: | **1.0** **If the modifying actor wants to revoke all permissions:**  1.0a The admin selects the option to revoke all permissions.  1.0b The system displays a confirmation message to ensure the intention of revoking all permissions.  1.0c The admin confirms the revocation of all permissions.  1.0d The system removes all permissions or access rights assigned to the staff, effectively revoking all access. | | |
| Exceptions: | **1.0E1 If there is a system error during the modification process:**  E1a. The system displays an error message indicating that an error has occurred.  E1b. The admin is advised to retry later.    **1.0E2 If the modifying actor doesn't make any changes:**  E2a. The system displays a warning message notifying the admin that no changes have been made for the staff.  E2b. The admin is advised to selects the desired changes to the permissions or access rights again. | | |