

**Capstone Project Report**

**Report 2 – System Requirement Specification**

– Ho Chi Minh, January 2021 –

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# I. Project Report

## 1. Status Report

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Work Item** | **Status** | **Notes (Work Item in Details)** |
| 1 | Overall Description |  |  |
| 2 | User Requirements |  |  |
| 3 | Functional Requirements |  |  |
| 4 | Non-Functional Requirements |  |  |
| 5 | Others Requirements |  |  |

## 2. Team Involvements

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Task** | **Member** | **Notes (Task Details, etc.)** |
| 1 | Overall Description |  |  |
| 2 | User Requirements |  |  |
| 3 | Functional Requirements |  |  |
| 4 | Non-Functional Requirements |  |  |
| 5 | Others Requirements |  |  |

## 3. Issues/Suggestions

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Issue** | **Status** | **Notes (Solution, Suggestion, etc.)** |
| 1 |  |  |  |

# II. System Requirement Specification

## 1. Overall Description

### 1.1 Product Overview

#### Unauthenticated User Requirements

Unauthenticated user who has not been identified by CFFA system. Unauthenticated user has limited access to the system with the following feature:

* Login

#### Authenticated User Requirements

Authenticated User who has been logged into the CFFA system. Authenticated user can use the following functions:

* Logout
* Change account's password
* Watch the video
* Save the video
* Delete the video
* View the reports
* View report detail
* Export the report file

#### Manager Requirements

Manager is a person who accesses to the system as manager role. Manager can use the following functions:

* View the shelfs
* View shelf detail
* Search the shelf
* Create new shelf
* Update the shelf
* Delete the shelf
* View the stacks
* View stack detail
* Search the stacks
* Create new stack
* Update the stack
* Delete the stack
* View the products
* View product detail
* Search the products
* Create new product
* Update the product
* Delete the product
* View the cameras
* View camera detail
* Search the cameras
* Create new camera
* Update the camera
* Delete the camera
* View the categories
* Create new category
* Update the category
* Delete the category

#### Admin Requirements

Admin is a person who accesses to the system as admin role. Admin can use the following functions:

* View the managers
* View manager detail
* Search the manager
* Create new manager
* Update the manager
* Delete the manager
* View the accounts
* View account detail
* Search the account
* Create new account
* Update the account
* Delete the account
* View the stores
* View store detail
* Search the store
* Create new store
* Update the store
* Delete the account
* Send the mail to the manager

#### Camera Requirements

Camera is an actor which can do:

* Send the videos to the server

#### System AI Requirements

System AI is an actor which can do:

* Analyze facial expression
* Detect the "hotspot"

### 1.2 Business Rules

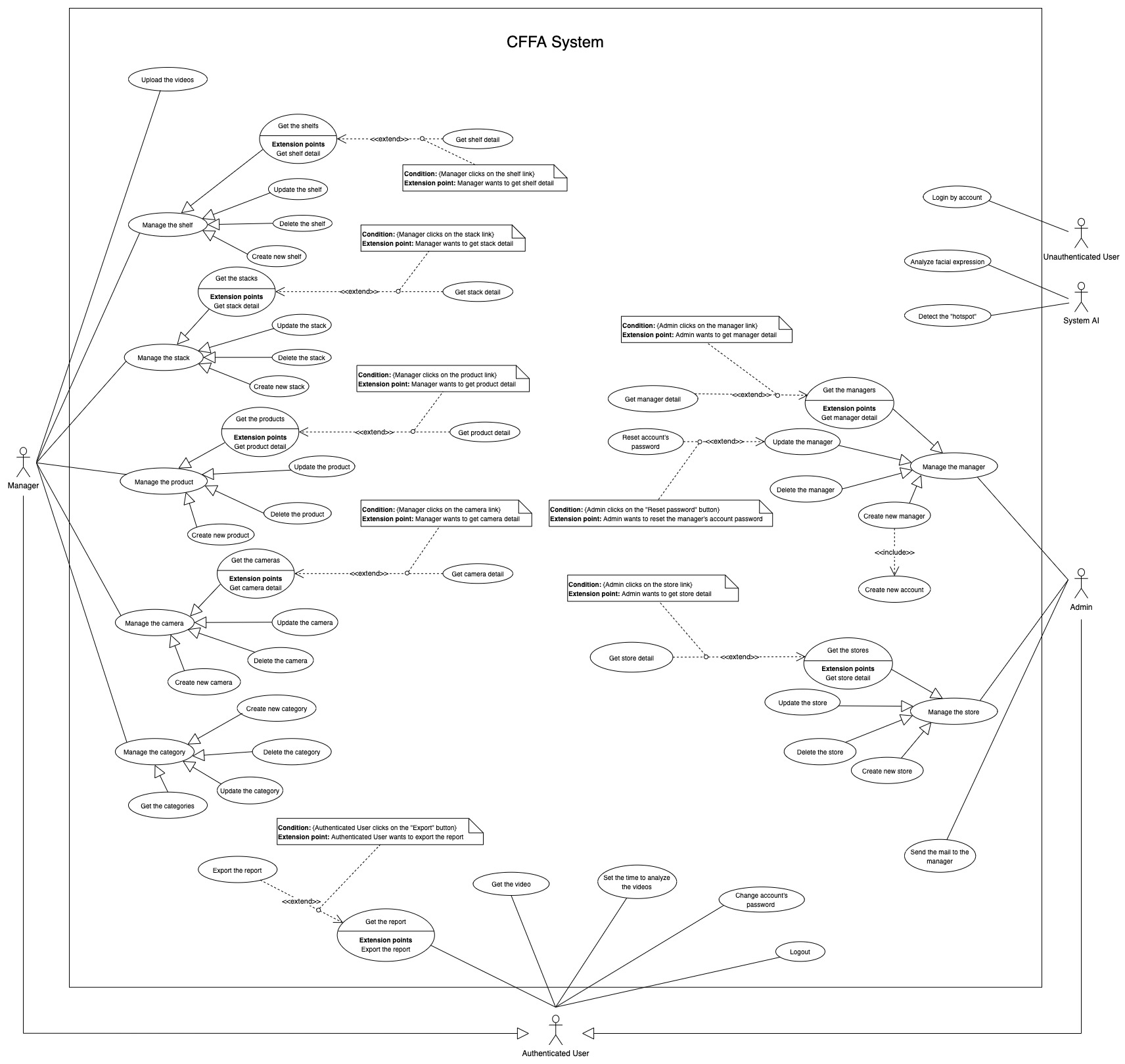
|  |  |
| --- | --- |
| ID | Rule Definition |
| BR-01 | User logs in using username and password are registered. If the username and password are correct, CFFA system redirects users to corresponding home page:   * User logs in as role “manager”, CFFA system will display the manager's home page. * User logs in as role “admin”, CFFA system will display the admin's home page. |
| BR-02 | After logout successfully, user becomes the “Unauthenticated User” and CFFA system will direct to login page. |
| BR-03 | User list contains the following information:   * UserId * Username * Fullname * Email * Avatar * Total applied store * User's active |
| BR-04 | User detail contains the following information:   * UserId * Username * Fullname * Email * Phone * Identify card * Gender * Avatar * Age of birth * Address * User's active * Store list |
| BR-05 | If the searched list is empty, system show "No result". |
| BR-06 | The information for all fields is as follows:   * Username: 6 - 50 characters * Fullname: 6 - 50 characters * Phone: +XX-XXXXXXXX|XXXXXXXXXX|XXX-XXX-XXXX pattern (X - a digit) * Email: @gmail.com, @fpt.edu.vn, @outlook.com * Identify card: 9 - 12 digits * Password: 6 - 20 characters, no special characters * Store name: 6 - 50 characters * Store no: 6 - 50 characters * Brand name: 6 - 50 characters * Hotline: +XX-XXXXXXXX|XXXXXXXXXX|XXX-XXX-XXXX pattern (X - a digit) * Shelf name: 6 - 50 characters * Shelf's position: [Row,Column] * Stack name: 6 - 50 characters * Product code: 6 - 50 characters * Description: 0 - 250 characters * Camera code: 6 - 50 characters * Camera IP address: XXX.XXX.XXX.XXX pattern (X- a digit) * Category name: 6 - 50 characters |
| BR-07 | Download PDF file |
| BR-08 | System stores the entered fields in the following format:  (From hour - To hour, From Day - To Day, From Month - To Month, Store name, Shelf name, Stack name, Product name, Camera name, Type)  Note:   * If the entered field is null, System stores 'null' string. * Type: 1-Emotion, 2-Hotpot, 3-All. |
| BR-09 | Store list contains the following information:   * StoreId * Store name * Store Address * Store Avatar * Total applied shelf |
| BR-10 | Store detail contains the following information:   * StoreId * Store name * Store Address * Store Email * Store Phone * Store Avatar * Date Create * Store's active * Shelf list |
| BR-11 |  |
| BR-12 | Shelf list contains the following information:   * ShelfId * Shelf name * Shelf Position * Store Name * Total applied stack |
| BR-13 | Shelf detail contains the following information:   * ShelfId * Shelf name * Shelf Position * Store Name * Store Position * Date Create * Date Update * Stack list |
| BR-14 | Stack list contains the following information:   * StackId * Stack name * Stack Position * Shelf Name * Store Name * Product Name * Camera Name |
| BR-15 | Stack detail contains the following information:   * StackId * Stack Name * Stack Position * Shelf Name * Shelf Position * Store Name * Store Position * Product Name * Camera Name * Date Create * Date Update |
| BR-16 | Product list contains the following information:   * Product Id * Product Name * Product Type |
| BR-17 | Product detail contains the following information:   * ProductId * Product Name * Product Type * Product Price * Product Avatar * Date Create * Date Update |
| BR-18 | Camera list contains the following information:   * Camera Id * Camera Name * Camera Type |
| BR-19 | Camera detail contains the following information:   * CameraId * Camera Name * Camera Type * Camera Price * Camera Avatar * Date Create * Date Update |

*Table 1 - Business rules*

## 2. User Requirements

### 2.1 Overview

#### Use Case Diagram



*Figure 1 - <Use Case Overview> Overview*

#### System Actors

|  |  |  |
| --- | --- | --- |
| **#** | **Actor** | **Description** |
| 1 | Unauthenticated User | Unauthenticated User is person who has no account. |
| 2 | Authenticated User | Authenticated User is a person who has an account in the system (There are two roles that are admin and manager). |
| 3 | Manager | Manager manages the store's products, shelfs, stacks, and cameras. |
| 4 | Admin | Admin manages the managers, accounts, and stores in the system. |
| 5 | System AI | System AI analyzes managers' emotions and detects the "hotspot" in the stores. |

*Table 2 - System actors*

#### Use Case List

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Use Case** | **Primary Actors** | **Secondary Actors** |
| UC-01 | **View all users** | Admin | N/A |
| UC-02 | **View user detail** | Admin | N/A |
| UC-03 | **Search the users** | Admin | N/A |
| UC-04 | **Deactivate a user** | Admin | N/A |
| UC-05 | **Login** | Unauthenticated user | N/A |
| UC-06 | **Register an account** | Unauthenticated user | N/A |
| UC-07 | **Logout** | Manager | Admin |
| UC-08 | **Update the profile** | Authenticated user | N/A |
| UC-09 | **Watch a video** | Manager | N/A |
| UC-10 | **Delete a video** | Manager | N/A |
| UC-11 | **Export the report file** | Manager | N/A |
| UC-12 | **View all stores** | Manager | N/A |
| UC-13 | **View store detail** | Manager | N/A |
| UC-14 | **Search the stores** | Manager | N/A |
| UC-15 | **Create new store** | Manager | N/A |
| UC-16 | **Update the store** | Manager | N/A |
| UC-17 | **Delete the store** | Manager | N/A |
| UC-18 | **View all shelfs** | Manager | N/A |
| UC-19 | **View shelf detail** | Manager | N/A |
| UC-20 | **Search the shelfs** | Manager | N/A |
| UC-21 | **Create new shelf** | Manager | N/A |
| UC-22 | **Update the shelf** | Manager | N/A |
| UC-23 | **Delete the shelf** | Manager | N/A |
| UC-24 | **View all stacks** | Manager | N/A |
| UC-25 | **View stack detail** | Manager | N/A |
| UC-26 | **Search the stacks** | Manager | N/A |
| UC-27 | **Create new stack** | Manager | N/A |
| UC-28 | **Update the stack** | Manager | N/A |
| UC-29 | **Delete the stack** | Manager | N/A |
| UC-30 | **View all products** | Manager | N/A |
| UC-31 | **View product detail** | Manager | N/A |
| UC-32 | **Search the products** | Manager | N/A |
| UC-33 | **Create new product** | Manager | N/A |
| UC-34 | **Update the product** | Manager | N/A |
| UC-35 | **Delete the product** | Manager | N/A |
| UC-36 | **View all cameras** | Manager | N/A |
| UC-37 | **View camera detail** | Manager | N/A |
| UC-38 | **Search the cameras** | Manager | N/A |
| UC-39 | **Create new camera** | Manager | N/A |
| UC-40 | **Update the camera** | Manager | N/A |
| UC-41 | **Delete the camera** | Manager | N/A |
| UC-42 | **Update the category** | Manager | N/A |
| UC-43 | **Delete the category** | Manager | N/A |
| UC-44 | **View the report** | Manager | N/A |
| UC-45 | **View the report history** | Manager | N/A |
| UC-46 | **Search the users** | Manager | N/A |
| UC-47 | **Approve the user’s request** | Admin | N/A |
| UC-48 | **Send the videos to the server** | Camera | N/A |

*Table 3 - Use case list*

### User case specification



#### 2.2.1 <Unauthenticated User> Overview Use Case



*Figure 2 - <Overview Use Case> Unauthenticated User*

##### 2.2.1.1 <Unauthenticated User> Login by account

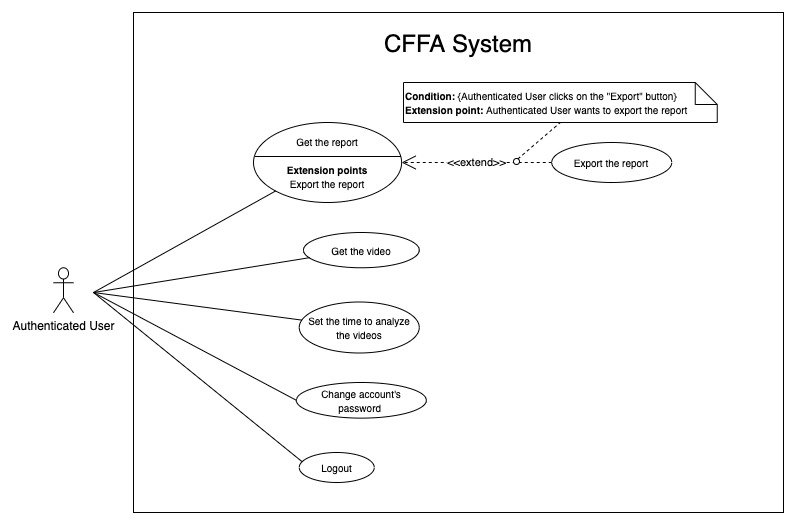


*Figure 3 - <Use Case> Login by account*

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-01 Login by account** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Unauthenticated User | Secondary Actors: | N/A |
| Description: | This feature allows the unauthenticated user to login to CFFA system to verify the role and gives them access to more features. | | |
| Trigger: | Unauthenticated User sends a request to login to CFFA system. | | |
| Pre-conditions: | PRE-01. User's account has been created.  PRE-02. User's account has been authorized as Admin or Manager role.  PRE-03. User has not logged in to CFFA system. | | |
| Post-conditions: | POST-01. User has successfully logged into CFFA system. | | |
| Normal Flow: | **1.0 Login by account**   1. Unauthenticated User send a requests to login to the CFFA system. 2. CFFA system requires information from Unauthenticated User:  * “Username”: text input, blank * “Password”: text input, blank  1. Unauthenticated User inputs a login form: username, password. 2. Unauthenticated User clicks to “Login” button. 3. CFFA system validates the username and password. (see 1.0.E1, 1.0.E2) 4. CFFA system determines the user’s identity, role, and permission then redirects to the home page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **1.0.E1 Unauthenticated User does not enter the required fields**   1. CFFA system returns to Unauthenticated User to fill the required fields again (MSG-001, MSG-002). 2. If Unauthenticated User inputs the required fields again, CFFA system returns to step 3 of normal flow. 3. Else if Unauthenticated User cancels the login process, then CFFA system terminates this use case.   **1.0.E2 Unauthenticated User enters wrong username or password.**   1. CFFA system returns to Unauthenticated User to fill the required fields again (MSG-003). 2. If Unauthenticated User inputs username and password again, CFFA system returns to step 3 of normal flow. 3. Else if Unauthenticated User cancels the login process, then CFFA system terminates this use case. | | |
| Priority: | High | | |
| Frequency of Use: | Always | | |
| Business Rules: | BR-001, BR-002, BR-003, BR-008 | | |
| Other Information: | In case of internet connection failure, Unauthenticated User cannot finish this use case. | | |
| Assumptions: | N/A | | |

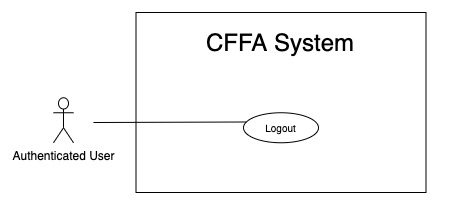
*Table 4 - <Use Case> Login by account*

#### 2.2.2 <Authenticated User> Overview Use Case



*Figure 4 - <Overview Use Case> Authenticated User*

##### 2.2.2.1 <Authenticated User> Logout

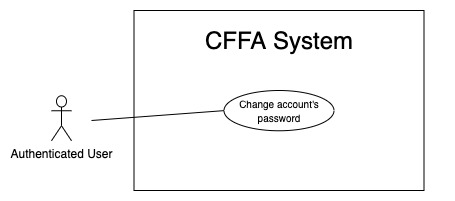


*Figure 5 - <Use Case> Logout*

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-02 Logout** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Authenticated User | Secondary Actors: | N/A |
| Description: | This feature allows Authenticated User to log out from CFFA system. | | |
| Trigger: | Authenticated user sends a request to log out from CFFA system. | | |
| Pre-conditions: | PRE-01. User has logged into CFFA system. | | |
| Post-conditions: | POST-01. User has successfully logged out CFFA system. | | |
| Normal Flow: | **2.0 Logout**   1. Authenticated user clicks on “Logout” button. 2. CFFA system deletes their cookies. 3. CFFA system redirects to "Login" page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | N/A | | |
| Priority: | Medium | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-004, BR-005, BR-006 | | |
| Other Information: | In case of internet connection failure, Authenticated User cannot finish this use case. | | |
| Assumptions: | N/A | | |

*Table 5 - <Use Case> Logout*

##### 2.2.2.2 <Authenticated User> Change account's password

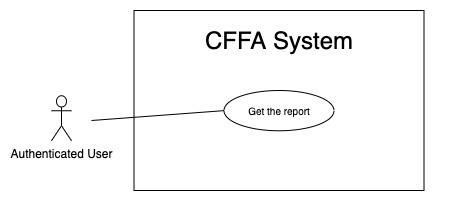


*Figure 6 - <Use Case> Change account's password*

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-03 Change account's password** | | |
| Created By: | HuuDN | Date Created: | 10/05/2021 |
| Primary Actor: | Authenticated User | Secondary Actors: | N/A |
| Description: | This feature allows Authenticated User to change the account's password. | | |
| Trigger: | Authenticated User sends a request to change the account's password. | | |
| Pre-conditions: | PRE-01. User has logged into CFFA system. | | |
| Post-conditions: | POST-01. Authenticated User has successfully changed the account's password. | | |
| Normal Flow: | **3.0 Change account's password**   1. Authenticated User sends a request to change the account's password. 2. CFFA system requires information from Authenticated User:  * “Old password”: text input, blank * “New Password”: text input, blank * “Re-enter New Password”: text input, blank  1. Authenticated User inputs a changing password form: old password, new password, and re-enter new password. 2. Authenticated User clicks to "Save" button. 3. CFFA system validates the old password, new password, and re-enter new password. (see 3.0.E1, 3.0.E2) 4. CFFA system will stores changing information. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **3.0.E1 Authenticated User does not enter the required fields**   1. CFFA system returns to Authenticated User to fill the required fields again (MSG-004, MSG-005, MSG-006, MSG-007). 2. If Authenticated User inputs the required fields again, CFFA system returns to step 3 of normal flow. 3. Else if Unauthenticated User cancels the login process, then CFFA system terminates this use case.   **3.0.E2 Authenticated User enters the required fields that are not valid**   1. CFFA system returns to Authenticated User to fill the required fields again (MSG-003). 2. If Authenticated User inputs the required fields again, CFFA system returns to step 3 of normal flow. 3. Else if Unauthenticated User cancels the login process, then CFFA system terminates this use case. | | |
| Priority: | Medium | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-002, BR-003, BR-007, BR-008 | | |
| Other Information: | In case of internet connection failure, Authenticated User cannot finish this use case. | | |
| Assumptions: | N/A | | |

*Table 6 - <Use Case> Change account's password*

##### 2.2.2.3 <Authenticated User> Get the report



*Figure 7 - <Use Case> Get the report*

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-04 Get the report** | | |
| Created By: | HuuDN | Date Created: | 11/05/2021 |
| Primary Actor: | Authenticated User | Secondary Actors: | N/A |
| Description: | This feature allows the Authenticated User to get the report. | | |
| Trigger: | Authenticated User sends a request to get the report. | | |
| Preconditions: | PRE-01. User has logged into CFFA system as admin or manager role. | | |
| Post-conditions: | POST-01. Authenticated User has successfully got the report. | | |
| Normal Flow: | **4.0 Get the report**   1. Authenticated User sends a request to get the report. 2. CFFA system requires the report's information from Authenticated User:  * “Start Time”: text input, blank * “End Time”: text input, blank * “Shelf”: combobox * “Stack”: combobox * “Product”: combobox * “Camera”: combobox * “Analyzed Options”: checkbox * “Time Filter”: checkbox  1. Authenticated User inputs/selects a form: start time, end time, shelf, stack, product, camera, analyzed options, and time filter. 2. Authenticated User clicks on "Generate" button. 3. CFFA system returns the reports (see 4.0.E1). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **4.0.E1 The report has no data to generate.**   1. CFFA system returns the message (MSG-010). | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: |  | | |
| Other Information: | In case of internet connection failure, Authenticated User cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

*Table 7 - <Use Case> Get the report*

##### 2.2.2.4 <Authenticated User> Export the report

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-05 Export the report** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Authenticated User | Secondary Actors: | N/A |
| Description: | This feature allows Authenticated User to export the report. | | |
| Trigger: | Authenticated User sends a request to export the report. | | |
| Preconditions: | PRE-01. User has logged into CFFA system as admin or manager role.  PRE-02. Authenticated User has got the report. | | |
| Post-conditions: | POST-01. Authenticated User has successfully exported the report. | | |
| Normal Flow: | **5.0 Export the report**  1. Admin clicks on “Download” button  2. CFFA system returns the report file for Authenticated User. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | N/A | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-008, BR-009. | | |
| Other Information: | In case of internet connection failure, Authenticated User cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

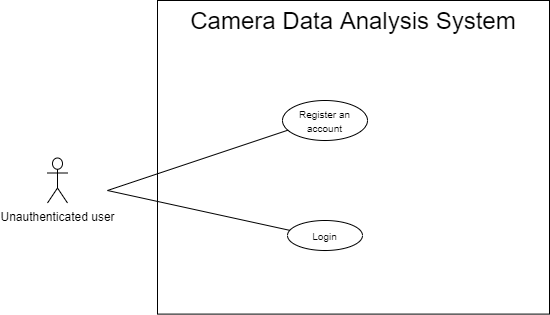
##### 2.2.2.5 <Authenticated User> Get the video

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-06 Get the video** | | |
| Created By: | HuuDN | Date Created: | 11/05/2021 |
| Primary Actor: | Authenticated User | Secondary Actors: | N/A |
| Description: | This feature allows Authenticated User to get the video. | | |
| Trigger: | Authenticated User sends a request to get the video. | | |
| Preconditions: | PRE-01. User has logged into CFFA system as admin or manager role. | | |
| Post-conditions: | POST-01. Authenticated User has successfully got the report. | | |
| Normal Flow: | **6.0 Get the video**   1. Authenticated User sends a request to get the report. 2. CFFA system requires the report's information from Authenticated User:  * “Start Time”: text input, blank * “End Time”: text input, blank * “Shelf”: combobox * “Stack”: combobox * “Product”: combobox * “Camera”: combobox * “Video Options”: checkbox  1. Authenticated User inputs/selects a form: start date, end date, shelf, stack, product, camera, video options. 2. Authenticated User clicks on "Play" button. 3. CFFA system plays the video (see 4.0.E1). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **6.0.E1 The video has no data to play.**   1. CFFA system returns the message (MSG-011). | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-010, BR-011. | | |
| Other Information: | In case of internet connection failure, Authenticated User cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.2.6 <Authenticated User> Set time to analyze the videos

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-07 Set time to analyze the videos** | | |
| Created By: | HuuDN | Date Created: | 11/05/2021 |
| Primary Actor: | Authenticated User | Secondary Actors: | N/A |
| Description: | This feature allows Authenticated User to get the video. | | |
| Trigger: | Authenticated User sends a request to get the video. | | |
| Preconditions: | PRE-01. User has logged into CFFA system as admin or manager role. | | |
| Post-conditions: | POST-01. Authenticated User has successfully got the report. | | |
| Normal Flow: | **6.0 Get the video**   1. Authenticated User sends a request to get the report. 2. CFFA system requires the report's information from Authenticated User:  * “Start Time”: text input, blank * “End Time”: text input, blank * “Shelf”: combobox * “Stack”: combobox * “Product”: combobox * “Camera”: combobox * “Video Options”: checkbox  1. Authenticated User inputs/selects a form: start date, end date, shelf, stack, product, camera, video options. 2. Authenticated User clicks on "Play" button. 3. CFFA system plays the video (see 4.0.E1). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **6.0.E1 The video has no data to play.**   1. CFFA system returns the message (MSG-011). | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-010, BR-011. | | |
| Other Information: | In case of internet connection failure, Authenticated User cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

#### <Unauthenticated User> Overview Use Case



*Figure 3 - <Unauthenticated User Overview> Overview*

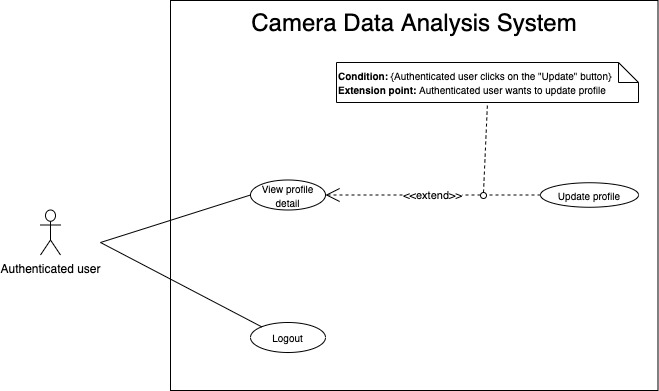
##### 2.2.2.1 <Unauthenticated User> Login

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-05 Login** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Unauthenticated User | Secondary Actors: | N/A |
| Description: | This feature allows the unauthenticated user logs in the system to verify role and gives them access to more features in the system. | | |
| Trigger: | Unauthenticated User sends a request to login the system. | | |
| Pre-conditions: | PRE-01. User has not logged in the system  PRE-02. Unauthenticated User is on “Login” page. | | |
| Post-conditions: | POST-01. Screen redirect to “Home” page. | | |
| Normal Flow: | **5.0 Login into system**   1. Unauthenticated User inputs a login form:   - “Username”: text input, blank  - “Password”: text input, blank  2. Unauthenticated User click to “Login” button.  3. System validate the username, password. (see 5.0.E1, 5.0.E2)  4. System determines user’s identity, role and permission then redirects user to home page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **5.0.E1 Unauthenticated User does not enter the required fields**   1. System returns the message. [MSG-004]   2a. If unauthenticated user inputs username and password again, system return to step 2 of normal flow.  2b. Else if unauthenticated user cancels the login process, then system terminates this use case.  **5.0.E2 Unauthenticated User enters wrong username or password.**  1. System returns the message. [MSG-005]  2a. If unauthenticated user inputs username or password again, system return to step 2 of normal flow.  2b. Else if unauthenticated user cancels the login process, then system terminates this use case. | | |
| Priority: | High | | |
| Frequency of Use: | Always | | |
| Business Rules: | BR-01 | | |
| Other Information: | 1. In case of internet connection failure. 2. Unauthenticated user cannot finish this use case. | | |
| Assumptions: | N/A | | |

##### 2.2.2.2 <Unauthenticated User> Register an account

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-06 Register account** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Unauthenticated User | Secondary Actors: | N/A |
| Description: | This feature allows the unauthenticated user registers an account. | | |
| Trigger: | Unauthenticated User clicks on "Register" button. | | |
| Pre-conditions: | PRE-01. User has not logged in the system.  PRE-02. User is on “Register” page | | |
| Post-conditions: | POST-01. System returns the message.  POST-02. System stores user information. | | |
| Normal Flow: | **6.0 User registers an account**  1. User enters a register form that includes:   * "Username": text input, blank. * "Fullname": text input, blank. * "Email": text input, blank. * "Day of birth": combo box. * "Gender": select box. * "Phone": text input, blank. * "Identify card": text input, blank. * "Password": text input, blank. * "Re-type password": text input, blank.   2. Unauthenticated user clicks on "Register" button.  3. System validates entered fields. (see 6.0.E1, 6.0.E2, 6.0.E3, 6.0.E4, 6.0.E5, 6.0.E6, 6.0.E7, 6.0.E8, 6.0.E9)  4. System shows this message [MSG-006] and redirects to "home" page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **6.0.E1 Unauthenticated user does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E2 Unauthenticated user enters "Username" field that already exists.**   1. System returns the message. [MSG-007] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E3 Unauthenticated user enters "Username" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E4 Unauthenticated user enters "Fullname" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E5 Unauthenticated user enters "Email" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E6 Unauthenticated user enters "Phone" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E7 Unauthenticated user enters "Identify card" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E8 Unauthenticated user enters "Password" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to unauthenticated user enters again.   **6.0.E9 Unauthenticated user enters "Re-type password" field that does not match "Password" field.**   1. System returns the message. [MSG-010] 2. System backs step 1 to unauthenticated user enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Unauthenticated user cannot finish this use case. | | |
| Assumptions: | N/A | | |

#### 2.2.3 <Authenticated User> Overview Use Case



*Figure 4 - <Authenticated User Overview> Overview*

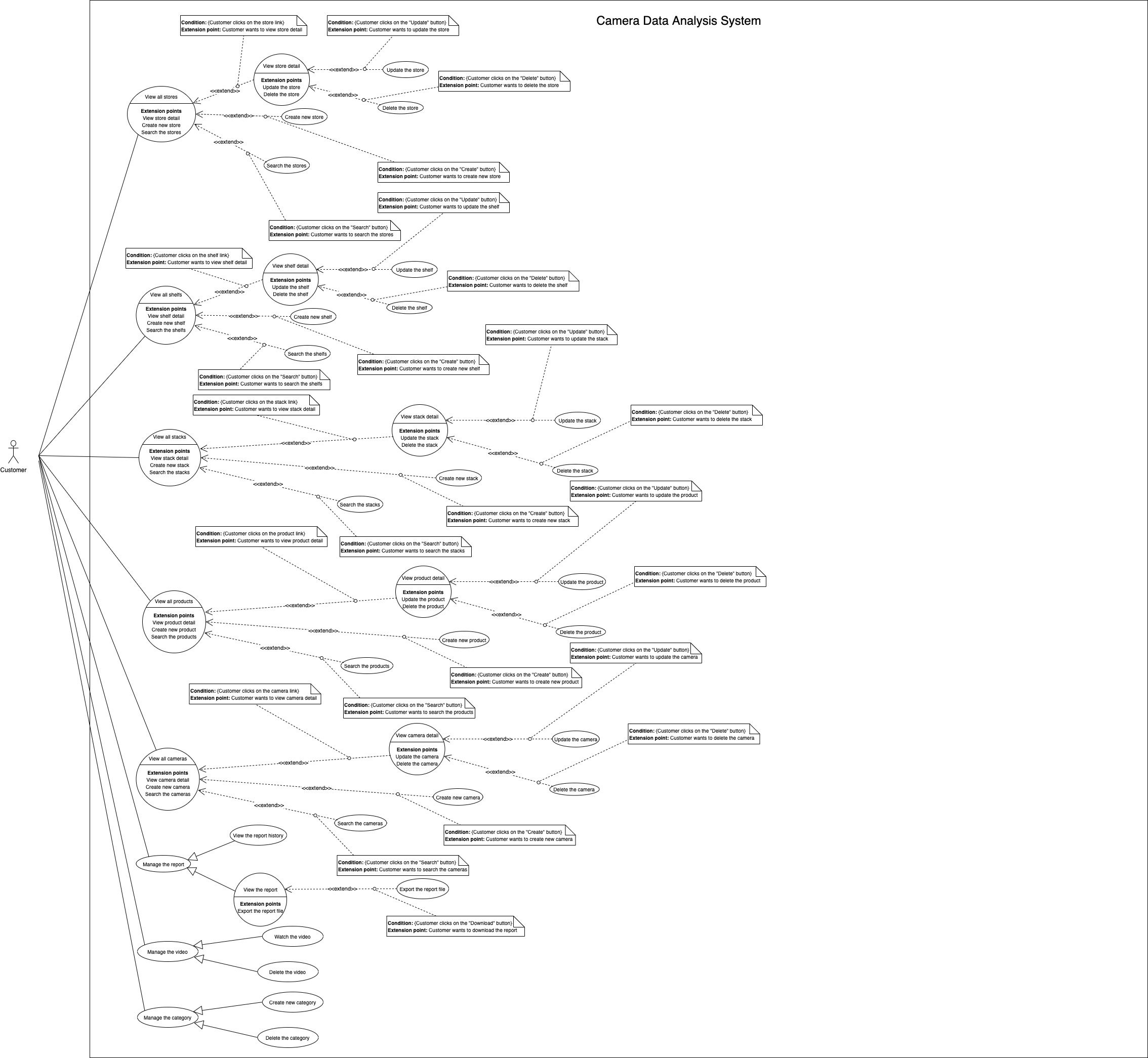
##### 2.2.3.1 <Authenticated User> Logout

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-07 Logout** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Authenticated User | Secondary Actors: | N/A |
| Description: | This feature allows the authenticated user to log out the system. | | |
| Trigger: | Authenticated user sends a request to log out the system. | | |
| Pre-conditions: | PRE-01. User has logged in the system. | | |
| Post-conditions: | POST-01. System deletes their login cookie.  POST-02. System redirects to “Login” page. | | |
| Normal Flow: | **7.0 Logout the system**  1. Authenticated user clicks on “Logout” button.  2. System deletes user's cookies.  3. System redirects to "Login" page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | N/A | | |
| Priority: | Simple. | | |
| Frequency of Use: | Often. | | |
| Business Rules: | N/A | | |
| Other Information: | 1. In case of internet connection failure. 2. Authenticated user cannot finish this use case. | | |
| Assumptions: | N/A | | |

##### 2.2.3.2 <Authorized User> Update the profile

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-08 Update the profile** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | Admin |
| Description: | This feature allows the manager/admin to update profile in the system. | | |
| Trigger: | Manager/Admin sends a request to update profile. | | |
| Preconditions: | PRE-01. User has logged in the system as manager/admin role.  PRE-02. Manager/Admin is on “Profile” page. | | |
| Post-conditions: | POST-01. System updates profile. | | |
| Normal Flow: | **8.0 Update the profile**  1. Manager/Admin edits the profile form that includes:   * "Fullname": text input, blank. * "Email": text input, blank. * "Day of birth": combo box. * "Gender": select box. * "Phone": text input, blank. * "Identify card": text input, blank. * "Password": text input, blank. * "Re-type password": text input, blank. * "Avatar": image.   2. Manager/Admin clicks on “Update” button.  3. System shows confirm popup with two buttons:  - “Yes” button.  - “No” button.  4. Manager/Admin clicks on “Yes” button, system returns [MSG-011] message updates the profile. (see 8.0.E1, 8.0.E2, 8.0.E3, 8.0.E4, 8.0.E5, 8.0.E6, 8.0.E7)  5. Manager/Admin clicks on “No” button, system closes the popup. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **8.0.E1 Manager/Admin does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 1 to manager/admin enters again.   **8.0.E2 Manager/Admin enters "Fullname" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 1 to manager/admin enters again.   **8.0.E3 Manager/Admin enters "Email" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to manager/admin enters again.   **8.0.E4 Manager/Admin enters "Phone" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to manager/admin enters again.   **8.0.E5 Manager/Admin enters "Identify card" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to manager/admin enters again.   **8.0.E6 Manager/Admin enters "Password" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 1 to manager/admin enters again.   **8.0.E7 Manager/Admin enters "Re-type password" field that does not match "Password" field.**   1. System returns the message. [MSG-010] 2. System backs step 1 to manager/admin enters again. | | |
| Priority: | Medium | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | N/A | | |
| Other Information: | 1. In case of internet connection failure 2. Manager/Admin cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

#### 2.2.4 <Manager> Overview Use Case



##### 2.2.4.1 <Manager> Watch the video

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-09 Watch the video** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to watch the video. | | |
| Trigger: | Manager sends a request to watch the video. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Video” page. | | |
| Post-conditions: | POST-01. System plays the video. | | |
| Normal Flow: | **9.0 Watch the video**  1. Manager clicks "play" icon on a specific video.  2. System will play the videos. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | N/A | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | N/A | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.2 <Manager> Delete the video

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-10 Delete the video** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to delete the video. | | |
| Trigger: | Manager sends a request to delete a specific video. | | |
| Pre-conditions: | PRE-01. User has logged into the system as guest role.  PRE-02. Manager is on “Mange Video” page. | | |
| Post-conditions: | POST-01. System deletes the video. | | |
| Normal Flow: | **10.0 Delete the video**  1. Manager clicks on the “Delete” button.  2. System shows confirm popup with two buttons:  - “Yes” button.  - “No” button.  3. Manager clicks on “Yes” button, system returns [MSG-012] message and deletes the video. (see 10.0.E1)  4. Manager clicks on “No” button, system closes the. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **10.0.E1 Video does not exist.**   1. System returns the message. [MSG-002] | | |
| Priority: | Low | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | N/A | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.3 <Manager> Export the report file

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-11 Export the report file** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to export the report file. | | |
| Trigger: | Manager sends a request to export the report file. | | |
| Preconditions: | PRE-01. User has logged in the system as manager role.  PRE-02 Manager is on “report” page. | | |
| Post-conditions: | POST-01. System exports a report file.  POST-02. System stores report information. | | |
| Normal Flow: | **11.0 Export the report file**  1. Manager clicks on the “Export” button. (see 11.0.E1)  2. System exports a report file. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **11.0.E1 Report does not exist.**   1. System returns the message. [MSG-002] | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-07, BR-08 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.4 <Manager> View all stores

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-12 View all stores** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager views all store. | | |
| Trigger: | Manager sends a request to view all store. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Store” page. | | |
| Post-conditions: | POST-01. System returns store list. | | |
| Normal Flow: | **12.0 View all stores**  1. Manager sends a request to view all stores (see 12.0.E1)  2. System returns store list. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **12.E1 System has no store to view.**  1. System returns the message: [MSG-001] | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-01, BR-02, BR-09 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.5 < Manager > View store detail

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-13 View store detail** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager views a store detail. | | |
| Trigger: | Manager sends a request to view store detail. | | |
| Preconditions: | PRE-01. User has logged in the system as manager role.  PRE-02. Manager is on “Manage Store” page. | | |
| Post-conditions: | POST-01. System returns a store detail. | | |
| Normal Flow: | **13.0 View store detail**  1. Manager clicks on the specific store link. (see 13.0.E1)  2. System will redirect "store detail" page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **13.E1 Store does not exist.**  1. System returns the message: [MSG-002] | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-10 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.6 <Manager> Search the stores

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-14 Search the stores** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to search the stores. | | |
| Trigger: | Manager sends a request to search the stores. | | |
| Preconditions: | PRE-01. User has logged in the system as manager role.  PRE-02. Manager is on “Manage Store” page. | | |
| Post-conditions: | POST-01. System returns the stores base on specific search conditions. | | |
| Normal Flow: | **14.0 Search store by conditions.**  1. Manager input a search conditions form to search the shelf:  - “Store ID”: text input, blank.  - “Store name”: text input, blank.  - “Brand name”: text input, blank.  - “Creator”: text input, blank.  - “Created Date”: combo box.  - “Location”: combo box.  - "Store's active": combo box.  - "Store's status": combo box.  2. Manager clicks on “Search” button.  3. System returns all store in the requested conditions. (see 14.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **14.0.E1 Manager does not enter/select any fields.**  1. System returns the message. [MSG-003] | | |
| Priority: | High | | |
| Frequency of Use: | Approximately 15 usages per day. | | |
| Business Rules: | BR-01, BR-02, BR-05, BR-09 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.7 <Manager> Create new store

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-15 Create new store** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to create a store. | | |
| Trigger: | User sends a request to create a store. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. User is on “Manage Store” page. | | |
| Post-conditions: | POST-01. System returns a message.  POST-02. System stores store detail. | | |
| Normal Flow: | **15.0 Create new store**  1. Manager clicks “New Store” to send a request to create a store.  2. System will show a form that requires identity information of store:  - “Store name”: input text, blank.  - “Store no”: input text, blank.  - “Brand name”: input text, blank.  - “Address”: input text, blank.  - “District”: Combo box.  - “City”: Combo box.  - “Hotline”: input text, blank.  - “Image”: Image.  3. Manager enters/selects the form fields. (see **.0.1**)  4. Manager clicks “Create” button to sends a request to create a store.  5. System validates the store information and stores them. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **15.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **15.0.E2 Manager enters "Store name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **15.0.E3 Manager enters "Store no" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **15.0.E4 Manager enters "Brand name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **15.0.E5 Manager enters "Address" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **15.0.E6 Manager enters "Hotline" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **15.0.E7 String of (Store name, store no, brand name) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.8 <Manager> Update the store

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-16 Update the store** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to update store information in the system. | | |
| Trigger: | Manager sends a request to update store information. | | |
| Preconditions: | PRE-01. User has logged in the system as manager role.  PRE-02. Manager views “Store Detail” page. | | |
| Post-conditions: | POST-01. System returns the message.  POST-02. System updates store detail. | | |
| Normal Flow: | **16.0 Update the store**  1. Manager clicks “Update” to send a request to update a store.  2. System will show a form that requires identity information of store:  - “Store name”: input text, blank.  - “Store no”: input text, blank.  - “Brand name”: input text, blank.  - “Address”: input text, blank.  - “District”: combo box.  - “City”: combo box.  - “Hotline”: input text, blank.  - “Image”: image.  - “Active”: combo box.  - “Shelf list”: list box.  + “Remove”: button.  - “Add a shelf”: combo box.  3. Manager clicks on “Save” button.  4. System shows confirm popup with two buttons: (see 16.0.E1, 16.0.E2, 16.0.E3, 16.0.E4, 16.0.E5, 16.0.E6)  - “Yes” button.  - “No” button.  5. Manager clicks on “Yes” button, system updates a specific store. (see 16.0.E7, 16.0.E8, 16.0.E9)  6. Manager clicks on “No” button, System closes the popup.  7. System returns the message. [MSG-011] | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **16.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **16.0.E2 Manager enters "Store name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **16.0.E3 Manager enters "Store no" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **16.0.E4 Manager enters "Brand name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **16.0.E5 Manager enters "Address" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **16.0.E6 Manager enters "Hotline" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **16.0.E7 String of (Store name, store no, brand name) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again.   **16.0.E8 Add the shelfs that already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again.   **16.0.E9 Remove the shelfs that does not exist.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.9 <Manager> Delete the store

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-17 Delete the store** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to delete the store in the system. | | |
| Trigger: | Manager sends a request to delete the store. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Store Detail” page. | | |
| Post-conditions: | POST-01. System returns the message. | | |
| Normal Flow: | **17.0 Delete the store**  1. Manager clicks on “Delete” button.  2. System shows confirm popup with two buttons:  - “Yes” button.  - “No” button.  3. Manager clicks on “Yes” button, system deletes the specific store.  4. Manager clicks on “No” button, system closes the popup.  5. System returns the message. [MSG-012] | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **17.0.E1 Store does not exist.**   1. System returns the message. [MSG-002] 2. System redirects "Manage store" page. | | |
| Priority: | Normal | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-11 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.10 <Manager> View all shelfs

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-18 View all shelfs** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to view all shelfs. | | |
| Trigger: | Manager sends a request to view all shelfs. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Shelf” page. | | |
| Post-conditions: | POST-01. System returns shelf list. | | |
| Normal Flow: | **18.0.E1 View all shelfs**  1. Manager sends a request to view all shelfs.  2. System returns shelf list (see 18.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **18.0.E1 System has no shelf to view.**  1. System returns the message: [MSG-001] | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-01, BR-02, BR-12 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.11 <Manager> View shelf detail

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-19 View shelf detail** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to view shelf detail. | | |
| Trigger: | Manager sends a request to view shelf detail. | | |
| Preconditions: | PRE-01. User has logged in the system as manager role.  PRE-02. Manager is on “Manage shelf” page. | | |
| Post-conditions: | POST-01. System returns shelf detail. | | |
| Normal Flow: | **19.0 View shelf detail**  1. Manager clicks on specific shelf link.  2. System will redirect to view shelf detail. (see 19.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **19.0.E1 Shelf does not exist.**  1. System returns the message: [MSG-002]  2. System redirects to "Manage shelf" page. | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-13 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.12 <Manager> Search the shelfs

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-20 Search the shelfs** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to search the shelfs. | | |
| Trigger: | Manager sends a request to search the shelfs. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage shelf” page. | | |
| Post-conditions: | POST-01. System returns all shelfs base on specific search conditions. | | |
| Normal Flow: | **20.0 Search shelf by conditions.**  1. Manager inputs a search conditions form to search the shelf:  - “Store”: combo box.  - “Shelf ID”: text input, blank.  - “Shelf Name”: text input, blank.  - “Creator”: text input, blank.  - “Created Date”: text input, blank.  - “Position on store”: combo box.  - “Shelf's active”: combo box.  - “Shelf's status”: combo box.  2. Manager clicks on “Search” button  3. System returns all shelfs base on requested conditions. (see 20.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **20.0.E1 Manager does not enter/select any fields.**   1. System returns the message. [MSG-003] | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-01, BR-02, BR-05, BR-12 | | |
| Other Information: | In case of internet connection failure, manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.13 <Manager> Create new shelf

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-21 Create new shelf** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to create a new shelf. | | |
| Trigger: | User sends a request to create a new shelf. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage shelf” page. | | |
| Post-conditions: | POST-01. System returns a message.  POST-02. System stores shelf detail. | | |
| Normal Flow: | **21.0 Create new shelf**  1. User clicks “New shelf” to send a request to create a shelf.  2. System will show a form that requires identity information of shelf:  - “Shelf name”: input text, blank.  - “Store”: combo box.  - “Position”: input text, blank.  - “Number of stacks:” input text, blank.  3. Manager enters/selects the form fields.  4. Manager clicks “Create” button to send a request to create a shelf. (see 21.0.E1, 21.0.E2, 21.0.E3, 21.0.E4)  5. System returns the [MSG-013] message. (see 21.0.E5, 21.0.E6) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **21.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **21.0.E2 Manager enters "Shelf name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **21.0.E3 Manager enters "Position" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **21.0.E4 Manager enters "Number of stacks" field that is wrong form.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **21.0.E5 Manager selects the store that is removed or does not exist.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **21.0.E6 String of (Shelf name + Store) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | Simple. | | |
| Frequency of Use: | Often. | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.14 <Manager> Update the shelf

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-22 Update the shelf** | | |
| Created By: | TruongTN | Date Created: | 18/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to update shelf information in the system. | | |
| Trigger: | Manager sends a request to update shelf information. | | |
| Preconditions: | PRE-01. User has logged in the system as manager role.  PRE-02. Manager is on “Shelf detail” page. | | |
| Post-conditions: | POST-01. System updates shelf detail.  POST-02. System returns the message. | | |
| Normal Flow: | **22.0 Update the shelf**  1. Manager clicks “Update” to send a request to update a shelf.  2. System will show a form that includes:  - “Shelf name”: input text, blank.  - “Store”: combo box.  - “Position”: input text, blank.  - “Number of stacks:” input text, blank.  - “Active”: combo box.  - “Stack list”: list box.  + “Remove”: button.  - “Add a stack”: combo box.  3. Manager clicks on “Save” button.  4. System shows confirm popup with two buttons: (see 22.0.E1, 22.0.E2, 22.0.E3, 22.0.E4, 220.E5)  - “Yes” button.  - “No” button.  5. Manager clicks on “Yes” button, system updates a specific store. (see 22.0.E6, 22.0.E7, 22.0.E8, 22.0.E9)  6. Manager clicks on “No” button, System closes the popup.  7. System returns the message. [MSG-011] | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **22.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **22.0.E2 Manager enters "Shelf name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **22.0.E3 Manager enters "Position" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **22.0.E4 Manager enters "Number of stacks" field that is wrong form.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **22.0.E5 Manager selects the store that is removed or does not exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **22.0.E6 String of (Shelf name + Store) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again.   **22.0.E7 Manager adds the stack that already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again.   **22.0.E8 Manager deletes the stack that does not exist.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **22.0.E9 Manager adds the stack that is number greater than shelf's total stack.**   1. System returns the message. [MSG-014] 2. System backs step 2 to manager enters again.   **22.0.E10 Position already exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.15 <Manager> Delete the shelf

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-23 Delete the shelf** | | |
| Created By: | TruongTN | Date Created: | 25/01/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to delete the shelf in the system. | | |
| Trigger: | Manager sends a request to delete shelf information. | | |
| Pre-conditions: | PRE-01. User has logged into the system as Manager role.  PRE-02. Manager is on “Shelf Detail” page. | | |
| Post-conditions: | POST-01. System returns the message. | | |
| Normal Flow: | **23.0 Delete the shelf**  1. Manager clicks on “Delete” button.  2. System shows confirm popup with two buttons:  - “Yes” button.  - “No” button.  3. Manager clicks on “Yes” button, system deletes the specific shelf.  4. Manager clicks on “No” button, system closes the popup.  5. System returns the message. [MSG-012] | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **23.0.E1 Shelf does not exist.**   1. System returns the message. [MSG-002] 2. System redirects "Manage shelf" page. | | |
| Priority: | Normal | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-11 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.16 <Manager> View all stacks

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-24 View all stacks.** | | |
| Created By: | LuanNM | Date Created: | 19/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to view all stacks. | | |
| Trigger: | Manager sends a request to get stacks list. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Stack” page. | | |
| Post-conditions: | POST-01. System returns stack list. | | |
| Normal Flow: | **24.0 View all stacks**  1. Manager sends a request to view all stacks.  2. System returns list stacks (see 24.0.E1). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **24.0.E1 Manager has no stack to view**   1. System returns the message. [MSG-001] | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-01, BR-02, BR-12 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.17 <Manager> View stack detail

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-25 View stack detail** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to view a stack detail. | | |
| Trigger: | Manager sends a request to view stack detail. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Stack” page. | | |
| Post-conditions: | POST-01. System returns stack detail. | | |
| Normal Flow: | **25.0 View stack detail**  1. Manager clicks on specific stack link.  2. System will redirect to view stack detail. (see 25.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **25.0.E1 Stack does not exist.**  1. System returns the message: [MSG-002]  2. System redirects to "Manage shelf" page. | | |
| Priority: | Simple. | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-15 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.18 <Manager> Search the stack

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-26 Search the stacks** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to search the stacks. | | |
| Trigger: | Manager sends a request to search the stacks. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage stack” page. | | |
| Post-conditions: | POST-01. System returns all stacks base on specific search conditions. | | |
| Normal Flow: | **26.0 Search stack by conditions.**  1. Manager input a form search condition to search stack:  - “Store”: combo box.  - “Shelf”: combo box.  - “Product”: combo box.  - “Camera”: combo box.  - “Stack Id”: input text, blank.  - “Stack name”: input text, blank.  - “Position on shelf”: input text, blank.  - “Created date”: input text, blank.  - “Creator”: input text, blank.  - “Stack's active”: combo box, blank.  - “Stack's status”: combo box, blank.  2. Manager clicks on “Search” button.  3. System returns all stacks based on the requested conditions. (see 26.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **26.0.E1 Manager does not enter/select any fields.**  1. System returns the message. [MSG-003] | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-01, BR-02, BR-05, BR-14 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.19 <Manager> Create new stack

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-27 Create new stack** | | |
| Created By: | LuanNM | Date Created: | 19/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to create a new stack. | | |
| Trigger: | Manager sends a request to create a new stack. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Stack” page. | | |
| Post-conditions: | POST-01. System returns a message.  POST-02. System stores stack detail. | | |
| Normal Flow: | **27.0 Create new stack**  1. User clicks “New stack” to send a request to create a stack.  2. System will show a form that requires identity information of stack:  - “Store”: combo box.  - “Shelf”: combo box.  - “Shelf name”: input text, blank.  - “Product”: combo box, blank.  - “Camera”: combo box, blank.  - “Position”: input text, blank.  3. Manager enters/selects the form fields.  4. Manager clicks “Create” button to send a request to create a shelf. (see 27.0.E1, 27.0.E2, 27.0.E3)  5. System returns the [MSG-013] message. (see 27.0.E4, 27.0.E5, 27.0.E6, 27.0.E7, 27.0.E8, 27.0.E9) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **27.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **27.0.E2 Manager enters "Stack name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **27.0.E3 Manager enters "Position" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **27.0.E4 Manager selects the store that is removed or does not exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **27.0.E5 Manager selects the shelf that is removed, does not exist, or contains fully.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **27.0.E6 Manager selects the product that is removed or does not exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **27.0.E7 Manager selects the camera that is removed or does not exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **27.0.E8 Shelf name already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again.   **27.0.E9 String of (Store, Shelf, Position) field that already exist.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.20 <Manager> Update the stack

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-28 Update the stack** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to update stack detail. | | |
| Trigger: | Manager sends a request to update stack detail. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Stack Detail” page. | | |
| Post-conditions: | POST-01. System updates stack detail.  POST-02. System returns the message. | | |
| Normal Flow: | **28.0 Update the stack**  1. Manager clicks “Update” to send a request to update a stack.  2. System will show a form that includes:  - “Store”: combo box.  - “Shelf”: combo box.  - “Shelf name”: input text, blank.  - “Product”: combo box, blank.  - “Camera”: combo box, blank.  - “Position”: input text, blank.  - “Active”: combo box.  3. Manager clicks on “Save” button.  4. System shows confirm popup with two buttons: (see 28.0.E1, 28.0.E2, 22.0.E3, 22.0.E4, 22.0.E5)  - “Yes” button.  - “No” button.  5. Manager clicks on “Yes” button, system updates a specific store. (see 22.0.E6, 22.0.E7, 22.0.E8, 22.0.E9)  6. Manager clicks on “No” button, System closes the popup.  7. System returns the message. [MSG-011] | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **28.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **28.0.E2 Manager enters "Stack name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **28.0.E3 Manager enters "Position" field that is wrong form.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **28.0.E4 Manager selects the store that is removed or does not exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **28.0.E5 Manager selects the shelf that is removed, does not exist, or contains fully.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **28.0.E6 Manager selects the product that is removed or does not exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **28.0.E7 Manager selects the camera that is removed or does not exists.**   1. System returns the message. [MSG-002] 2. System backs step 2 to manager enters again.   **28.0.E8 Shelf name already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again.   **28.0.E9 String of (Store, Shelf, Position) field that already exist.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.21 <Manager> Delete the stack

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-29 Delete the stack** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to delete the stack. | | |
| Trigger: | Manager sends a request to delete a stack. | | |
| Preconditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Stack Detail” page. | | |
| Post-conditions: | POST-1. System returns the message. | | |
| Normal Flow: | **29.0 Delete the shelf**  1. Manager clicks on “Delete” button.  2. System shows confirm popup with two buttons:  - “Yes” button.  - “No” button.  3. Manager clicks on “Yes” button, system deletes the specific shelf.  4. Manager clicks on “No” button, system closes the popup.  5. System returns the message. [MSG-012] (see 29.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **29.0.E1 Shelf does not exist.**   1. System returns the message. [MSG-002] 2. System redirects "Manage shelf" page. | | |
| Priority: | Normal | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-11 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### ===============================================================================

##### 2.2.4.23 <Manager> View product detail

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-31 View product detail** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager views a product detail. | | |
| Trigger: | Manager sends a request to view product detail. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Product” page. | | |
| Post-conditions: | POST-01. System returns product detail. | | |
| Normal Flow: | **31.0 View product detail**  1. Manager sends a request to view product detail.  2. System will redirect to view product detail. (see 31.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **31.0.E1 Product does not exist.**  1. System returns the message: [MSG-002]  2. System redirects to "Manage product" page. | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-17 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.24 <Manager> Search the products

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-32 Search the products** | | |
| Created By: | TruongTN | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to get products. | | |
| Trigger: | Manager sends a request to search the products. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Product” page. | | |
| Post-conditions: | POST-01. System returns products based on specific search conditions. | | |
| Normal Flow: | **32.0 Search the products by the conditions.**  1. Manager input a form search condition to search product:  - “Product name”: text input, blank.  - “Product's status”: combo box.  2. Manager clicks on “Search” button.  3. System returns products based on the requested conditions. (see 32.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | N/A | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-01, BR-02, BR-05, BR-16 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.25 <Manager> Create new product

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-33 Create new product** | | |
| Created By: | LuanNM | Date Created: | 19/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to create a new product. | | |
| Trigger: | Manager sends a request to create a new product. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Product” page. | | |
| Post-conditions: | POST-01. System returns a message.  POST-02. System stores product detail. | | |
| Normal Flow: | **33.0 Create new product**  1. Manager click “Create Product” to sends a request to create a new product.  2. System will show a form requires identity information of the product:  - “Product name”: input text, blank.  - “Product code”: combo box.  - “Product type”: combo box.  - “Description”: input text, blank.  - “Image”: image.  3. Manager enters/selects the form fields.  4. Manager clicks “Create” button to send a request to create a shelf. (see 33.0.E1, 33.0.E2, 33.0.E3, 33.0.E4)  5. System returns the [MSG-013] message. (see 33.0.E5). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **33.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **33.0.E2 Manager enters "Product name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **33.0.E3 Manager enters "Product code" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **33.0.E4 Manager enters "Description" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **33.0.E5 String of (Product name, product code) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | In case of internet connection failure, Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.26 <Manager> Update the product

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-34 Update the product** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to update product detail. | | |
| Trigger: | Manager sends a request to update product detail. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Product Detail” page. | | |
| Post-conditions: | POST-01. System updates product detail.  POST-02. System returns the message. | | |
| Normal Flow: | **34.0 Update the product**  1. Manager clicks “Update” to send a request to update a product.  2. System will show a form that includes:  - “Product name”: input text, blank.  - “Product code”: combo box.  - “Product type”: combo box.  - “Description”: input text, blank.  - “Image”: image.  - “Active”: combo box.  3. Manager clicks on “Save” button.  4. System shows confirm popup with two buttons: (see 34.0.E1, 34.0.E2, 34.0.E3, 34.0.E4)  - “Yes” button.  - “No” button.  5. Manager clicks on “Yes” button, system updates a specific store. (see 34.0.E5)  6. Manager clicks on “No” button, System closes the popup.  7. System returns the message. [MSG-011] | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **34.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **34.0.E2 Manager enters "Product name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **34.0.E3 Manager enters "Product code" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **34.0.E4 Manager enters "Description" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **34.0.E5 String of (Product name, product code) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.27 <Manager> Delete the product

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-35 Delete the product** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to delete the product. | | |
| Trigger: | Manager sends a request to delete a product. | | |
| Preconditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Product Detail” page. | | |
| Post-conditions: | POST-1. System returns the message. | | |
| Normal Flow: | **35.0 Delete the product**  1. Manager clicks on “Delete” button.  2. System shows confirm popup with two buttons for manager can select:  - “Yes” button  - “No” button  3. User clicks on “Yes” button, system delete the product.  4. User clicks on “No” button, system closes the popup.  5. System returns the message. [MSG-012] (see 35.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **35.0.E1 Shelf does not exist.**   1. System returns the message. [MSG-002] 2. System redirects "Manage shelf" page. | | |
| Priority: | Normal | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-11 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.28 <Manager> View all cameras

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-36 View all cameras.** | | |
| Created By: | LuanNM | Date Created: | 19/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to view all cameras that they manage. | | |
| Trigger: | Manager sends a request to get cameras list. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Camera” page. | | |
| Post-conditions: | POST-01. System returns products list. | | |
| Normal Flow: | **36.0 View all products**  1. Manager sends a request to view all cameras.  2. System return list cameras (see 36.0.E1). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **36.0.E1 Manager has no product to view**   1. System returns the message. [MSG-001] | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-01, BR-02, BR-18 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.29 <Manager> View camera detail

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-37 View camera detail** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager views a camera detail. | | |
| Trigger: | Manager sends a request to view camera detail. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Camera” page. | | |
| Post-conditions: | POST-01. System returns camera details. | | |
| Normal Flow: | **37.0 View camera detail**  1. Manager sends a request to view camera detail.  2. System will redirect to view camera detail. (see 37.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **31.0.E1 Camera does not exist.**  1. System returns the message: [MSG-002]  2. System redirects to "Manage camera" page. | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-19 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.30 <Manager> Search the cameras

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-38 Search the cameras** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows the manager to search the cameras. | | |
| Trigger: | Manager sends a request to search the cameras. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage camara” page. | | |
| Post-conditions: | POST-01. System returns the cameras base on specific search conditions. | | |
| Normal Flow: | **38.0 Search the cameras by the conditions.**  1. Manager input a form search condition to search camera:  - “Camera name”: text input, blank.  - “Camera code”: text input, blank.  - “Brand name”: text input, blank.  - “Camera's active”: combo box.  - “Camera's status”: combo box.  - “Created date”: combo box.  - “Creator”: text input, blank.  2. Manager clicks on “Search” button.  3. System returns all cameras based on requested conditions. (see 38.0.E1) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **38.0.E1 Manager does not enter/select any fields.**  1. System returns the message. [MSG-003] | | |
| Priority: | High | | |
| Frequency of Use: | Usually | | |
| Business Rules: | BR-01, BR-02, BR-05, BR-18 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.31 <Manager> Create new camera

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-39 Create new camera** | | |
| Created By: | LuanNM | Date Created: | 19/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to create a new camera. | | |
| Trigger: | Manager sends a request to create a new camera. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Camera” page. | | |
| Post-conditions: | POST-01. System returns a message.  POST-02. System stores camera detail. | | |
| Normal Flow: | **39.0 Create new camera**  1. Manager click “Create Camera” to sends a request to create a new camera.  2. System will show a form requires identity information of the camera:  - “Camera code”: input text, blank  - “Brand name”: input text, blank  - “IP Address”: input text, blank  - “Image”: image  3. Manager enters/selects the form fields.  4. Manager clicks “Create” button to send a request to create a shelf. (see 39.0.E1, 39.0.E2, 39.0.E3, 39.0.E4)  5. System returns the [MSG-013] message. (see 39.0.E5). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **39.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **39.0.E2 Manager enters "Camera code" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **39.0.E3 Manager enters "Brand name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **39.0.E4 Manager enters "IP address" field that is wrong pattern.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **39.0.E5 String of (Brand name, camera code) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | High | | |
| Frequency of Use: | Often | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.32 <Manager> Update the camera

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-40 Update the camera** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to update camera detail. | | |
| Trigger: | Manager sends a request to update camera detail. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Camera Detail” page. | | |
| Post-conditions: | POST-01. System updates camera detail.  POST-02. System returns the message. | | |
| Normal Flow: | **40.0 Update the camera**  1. Manager clicks “Update” to send a request to update a camera.  2. System will show a form that includes:  - “Camera code”: input text, blank  - “Brand name”: input text, blank  - “IP Address”: input text, blank  - “Image”: image  - “Active”: combo box  3. Manager clicks on “Save” button.  4. System shows confirm popup with two buttons: (see 40.0.E1, 40.0.E2, 40.0.E3, 40.0.E4)  - “Yes” button.  - “No” button.  5. Manager clicks on “Yes” button, system updates a specific store. (see 40.0.E5)  6. Manager clicks on “No” button, System closes the popup.  7. System returns the message. [MSG-011] | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **40.0.E1 Manager does not enter/select required fields.**   1. System returns the message. [MSG-004] 2. System backs step 2 to manager enters again.   **40.0.E2 Manager enters "Camera code" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **40.0.E3 Manager enters "Brand name" field that is wrong length.**   1. System returns the message. [MSG-008] 2. System backs step 2 to manager enters again.   **40.0.E4 Manager enters "IP address" field that is wrong pattern.**   1. System returns the message. [MSG-009] 2. System backs step 2 to manager enters again.   **40.0.E5 String of (Brand name, camera code) already exists.**   1. System returns the message. [MSG-007] 2. System backs step 2 to manager enters again. | | |
| Priority: | Simple. | | |
| Frequency of Use: | Often. | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.33 <Manager> Delete the camera

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-41 Delete the camera** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to delete the camera. | | |
| Trigger: | Manager sends a request to delete a camera. | | |
| Preconditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Product Detail” page. | | |
| Post-conditions: | POST-1. System returns the message. | | |
| Normal Flow: | **41.0 Delete the product**  1. Manager clicks on “Delete” button.  2. System shows confirm popup with two buttons for manager can select:  - “Yes” button  - “No” button  3. User clicks on “Yes” button, system delete the camera. (see 41.0.E1)  4. User clicks on “No” button, System closes the popup. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **41.0.E1 Shelf does not exist.**   1. System returns the message. [MSG-002] 2. System redirects "Manage shelf" page. | | |
| Priority: | Normal | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-11 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.34 <Manager> Create new category

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-42 Create new category** | | |
| Created By: | LuanNM | Date Created: | 19/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to create a new category. | | |
| Trigger: | Manager sends a request to create a new category. | | |
| Pre-conditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage category” page. | | |
| Post-conditions: | POST-01. System returns a message.  POST-02. System stores category detail. | | |
| Normal Flow: | **42.0 Create new category**  1. Manager click “Create category” to sends a request to create a new category.  2. System will show a form requires identity information of the category:  - “Category Name.”: text input, blank  3. Manager enters the form field.  4. Manager clicks “Create” button to send a request to create a shelf. (see 42.0.E1)  5. System returns the [MSG-013] message. (see 42.0.E5). | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **42.0.E1 Manager fails to fill in all the requires fields**   1. System returns to manager to fill in the missing fields | | |
| Priority: | Low | | |
| Frequency of Use: | Sometimes | | |
| Business Rules: | BR-06 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

##### 2.2.4.35 <Manager> Delete the category

|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-43 Delete the category** | | |
| Created By: | LuanNM | Date Created: | 20/03/2021 |
| Primary Actor: | Manager | Secondary Actors: | N/A |
| Description: | This feature allows manager to delete a category. | | |
| Trigger: | Manager sends a request to delete a category. | | |
| Preconditions: | PRE-01. User has logged into the system as manager role.  PRE-02. Manager is on “Manage Category” page. | | |
| Post-conditions: | POST-01. System returns the message.  POST-02. System deletes the category from system. | | |
| Normal Flow: | **43.0 Delete the category**  1. Manager clicks on “Delete” button.  2. System show confirm popup with two buttons for manager can select:  - “Yes” button  - “No” button  3. User clicks on “Yes” button, system delete the category.  4. User clicks on “No” button, system closes the popup. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **43.0.E1 Shelf does not exist.**   1. System returns the message. [MSG-002] 2. System redirects "Manage shelf" page. | | |
| Priority: | Medium | | |
| Frequency of Use: | Often. | | |
| Business Rules: | BR-11 | | |
| Other Information: | 1. In case of internet connection failure. 2. Manager cannot finish this use case properly. | | |
| Assumptions: | N/A | | |

## 

## 3. Other Requirements

### 3.1 Messages List

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Message code** | **Message Type** | **Context** | **Content** |
| 1 | MSG-001 | In line, under input form, red text | The list is empty. | No {object} to display |
| 2 | MSG-002 | In line, under input form, red text | The object doesn't not exist. | The {object} does not exist |
| 3 | MSG-003 | In line, under input form, red text | User does not enter/select any fields of search form. | Please enter/select at least one field. |
| 4 | MSG-004 | In line, under input form, red text | User does not enter/select the required field. | The {field} is required. |
| 5 | MSG-005 | In line, under input form, red text | Username or password is wrong. | Invalid username or password. |
| 6 | MSG-006 | in line, text field, red text | Unauthenticated user registers an account successfully. | Registration successful. |
| 7 | MSG-007 | in line, text field, red text | System already has object. | The {object} already exists. |
| 8 | MSG-008 | In line, under input form, red text | The text fields have wrong length or datatype. | The {field} has from {min-length} to {max-length} characters/digits.  (Based on BR-16) |
| 9 | MSG-009 | In line, under input form, red text | The text fields have wrong pattern. | The {field} is wrong the form. ({form-validation})  (Based on BR-16) |
| 10 | MSG-010 | In line, under input form, red text | The re-type password is wrong. | The re-type password is wrong. |
| 11 | MSG-011 | in line, text field, red text | Updating an object is successful. | Updated {object} successfully. |
| 12 | MSG-012 | in line, text field, red text | Deleting an object is successful. | Deleted {object} successfully. |
| 13 | MSG-013 | in line, text field, red text | Creating an object is successful. | Created {object} successfully. |
| 14 | MSG-014 | in line, text field, red text | The total of an object is a number. | The total of {object} is {number}. |