



VNUHCM - University of Science  
Faculty of Information Technology



# USE-CASE SPECIFICATION *for* wellib

Presented by :  
**Group 9 - The Hand (21CLC10)**

Project Name:  
**Wellib**

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## **Group 9 - The Hand**

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**Wellib**

**Version 1.5**

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## Revision History

Date	Version	Description	Author
1/Jul/23	1.0	Finish use-cases: login, register, edit profile, search book, view book detail	Nguyễn Lê Hoàng Kha
6/Jul/23	1.1	Finish use-cases: Accounts Management, Readers Management, Report.	Nguyễn Tuấn Tuấn, Phạm Gia Tuấn Khải
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# I. Use-case specification

## 1. LOGIN

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### 1. Brief Description

- This use case describes how a user logs into the Wellib System.
- The actors starting this use case are Administrators, Reader, and Librarian.

### 2. Flow of Events

#### 2.1. Basic Flow

- 1) User access to the Wellib Website;
- 2) System redirects to a Login page and displays a Login form;
- 3) User type in his/her username and password;
- 4) Users click the Login button;
- 5) System checks on the login information;
- 6) System displays a success message and redirects users to the specific HomePage based on the user's role.

#### 2.2. Alternative Flows

- 1) Invalid Username/ Password

If in the basic flow the system cannot find the name or the password is invalid, an error message is displayed. The actor can type in a new name or password or choose to cancel the operation, at which point the use case ends.

- 2) Pressing Enter instead of Login button

After the user finishes typing in username and password, user can press Enter button on keyboard then the system will perform a similar operation as stage 4 in basic flow.

### 3. Special Requirements

- 1) User Roles and Permissions:

The login function should enforce user roles and permissions. The login process should validate the user's role and restrict access to authorized functionalities accordingly.

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## 2) User-Friendly Interface:

The login function should provide a user-friendly interface, allowing users to enter their credentials easily and providing clear feedback in case of authentication failures (e.g., incorrect username or password).

## 4. Preconditions

### 1) User Registration:

Users must have a registered account in the library management system. They should provide necessary information during the registration process, such as a valid email address or unique username.

### 2) Active Account:

The user's account must be active and not suspended or deactivated by the system administrator. Inactive accounts should not be allowed to log in.

### 3) Valid Credentials:

Users must provide valid login credentials, such as a correct username or email address and the corresponding password associated with their account.

## 5. Postconditions

### 1) Successful Authentication:

If the user provides valid login credentials and passes the authentication process, the postcondition is that the user is granted access to the library management system.

### 2) Access Permissions:

The postcondition includes granting the user appropriate access permissions based on their assigned role and privileges within the system. For example, librarians may have access to administrative features that readers do not have.

### 3) User Session Establishment:

After successful authentication, a user session is established, allowing the user to interact with various features and functionalities within the library management system.

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## 6. Extension Points

### 1) Forgot Password Functionality:

Implement a "Forgot Password" feature that allows users to reset their password if they have forgotten it. This feature provides a way for users to regain access to their account without needing to contact support.

## 2. REGISTER

---

### 1. Brief Description

- This use case describes how a user registers an account in the Wellib System.
- The actors starting this use case are Reader.

### 2. Flow of Events

#### 2.1. Basic Flow

- 1) User access to the Wellib Website;
- 2) System redirects to a Login page and displays a Login form with a link to a Registration page;
- 3) Users click the Register button;
- 4) System redirects to a Register page and displays a Registration form;
- 5) User type in his/her username, password and confirm password;
- 6) Users click the Register button;
- 7) System checks on the Registration information;
- 8) System displays a success message and redirects users to the Login page.

#### 2.2. Alternative Flows

- 1) Invalid Username/ Password

If in the basic flow, users send an invalid form (existing username, wrong password confirm, not matching standard) then an error message is displayed. The actor can type in a new name or password or choose to cancel the operation, at which point the use case ends.

- 2) Pressing Enter instead of Register button



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After the user finishes typing in username and password and password confirm, user can press Enter button on keyboard then the system will perform a similar operation as stage 6 in basic flow.

### 3. Special Requirements

#### 1) Validation of User Information:

Implement thorough validation checks for the user's registration information, such as email address format, password complexity, and required fields. This helps prevent errors and ensures that accurate and valid information is entered during registration.

#### 2) Unique User Identification:

Ensure that each registered user has a unique identifier or username to distinguish them within the system. This can be achieved by checking the uniqueness of usernames or assigning unique identification numbers to users during the registration process.

### 4. Preconditions

#### 1) Registration Page Access:

The registration page or form must be accessible to users, either through a designated registration page or a link provided on the login page.

#### 2) Required Information:

The user must provide all the required information during registration, such as a valid username, password, specified by the system.

#### 3) Unique User Identification:

The system should verify that the chosen username is not already associated with an existing registered user. This ensures that each user has a unique identification within the system.

### 5. Postconditions

#### 1) User Account Creation:

A new user account is created in the system with the provided registration information (username, password).

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## 2) User Authentication:

The registered user can successfully log in to the system using the created account credentials.

## 3) Access to User-specific Features:

Upon successful registration, the user gains access to features and functionalities specific to their user role or permissions within the system.

## 4) User Profile Creation:

A user profile is created for the registered user, which may include additional optional information such as profile picture, contact details, and personal preferences.

## 6. Extension Points

There are no extension points associated with this use case.

# 3. EDIT PROFILE

---

## 1. Brief Description

- This use case describes how a user edits the profile of an account in the Wellib System.
- The actors starting this use case are Reader, Librarian, Admin.

## 2. Flow of Events

### 2.1. Basic Flow

- 1) In the specific home url of each role, users will click the button of a tag which displays the user's username;
- 2) The website directs users to the edit profile url;
- 3) Users will be able to change information about first name, last name, phone, sex, date of birth, profile image;
- 4) Users click the save button;
- 5) System will display a success message.

### 2.2. Alternative Flows

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#### 1) Invalid input fields.

If in the basic flow, the user sends an invalid form then an error message is displayed. The actor can type in a new value for each field or choose to cancel the operation, at which point the use case ends.

#### 2) First time login

Reader first time login to the system will be asked to fill in the information of the profile.

### 3. Special Requirements

- 1) Any changes made to the user profile should be saved securely in the system's database, ensuring that the updated information is reflected across all relevant modules and functionalities.
- 2) Only authenticated users should be allowed to edit their profiles.
- 3) The editing profile feature should have a user-friendly and intuitive interface, making it easy for users to navigate, update their information, and save changes efficiently.

### 4. Preconditions

#### 1) User Authentication:

The user must be authenticated and logged in to the system with their valid credentials before they can access and edit their profile.

#### 2) Profile Access:

The user should have the necessary permissions and privileges to edit their own profile. They should not be able to edit profiles of other users unless they have appropriate administrative privileges.

#### 3) Profile Existence:

The user must have an existing profile within the system that can be edited. If a user does not have a profile yet, they may need to complete the registration process or create a profile before being able to edit it.

#### 4) Required Fields:

The system may require certain fields in the profile to be filled in, such as name, email

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address, and other essential information. These required fields should be populated with valid information before allowing the profile to be edited.

#### 5) Data Validation:

The information entered in the profile fields should pass validation checks to ensure the entered data meets the specified format or criteria (e.g., valid email format, appropriate character length).

## 5. Postconditions

#### 1) Profile Update:

The changes made by the user during the profile editing process are successfully saved and reflected in the user's profile within the system.

#### 2) Data Validation:

The edited profile data passes validation checks and meets the specified format or criteria (e.g., valid email format, appropriate character length).

#### 3) User Notifications:

Upon successful profile editing, the user may receive a confirmation message indicating that their profile has been updated successfully.

#### 4) Access to Updated Information:

Other components or features within the system that rely on the user's profile information now have access to the updated and accurate data.

## 6. Extension Points

There are no extension points associated with this use case.

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## 4. SEARCH BOOK

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### 1. Brief Description

- This use case describes the process of searching for books within the library management system.
- The actors starting this use case are Reader, Librarian, Admin.

### 2. Flow of Events

#### 2.1. Basic Flow

- 1) The user accesses the search functionality within the system main homepage;
- 2) The system presents a search interface or search bar where the user can enter search criteria;
- 3) The user enters the desired search query, which may include book titles, authors, keywords, or any other relevant information;
- 4) The system validates the search query;
- 5) The system retrieves and displays a list of books matching the search criteria.

#### 2.2. Alternative Flows

- 1) Invalid Search Query:

If the search query entered by the user is invalid or incomplete, the system displays an error message indicating the issue and prompts the user to provide a valid search query. The user can then correct the search query and retry the search process.

### 3. Special Requirements

- 1) Available Books:

There should be books or resources available in the library database for the search function to retrieve and display as search results. If the library is empty or lacks relevant book data, the search function may not yield any results.

- 2) Database Connectivity:

The system must have a connection to the book database containing the relevant book information. The database should be accessible and available for search queries.

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#### **4. Preconditions**

##### **1) User Authentication:**

Users do not need to be authenticated, search functionality is displayed in the main homepage of the system.

##### **2) Searchable Content:**

The system should have a collection of books.

#### **5. Postconditions**

##### **1) Display of Search Results:**

The search function displays a list of search results based on the user's search query and the available content in the system. The search results should be relevant and accurately match the user's search criteria.

##### **2) Pagination or Scrollable Results:**

If the search results exceed a certain limit, the search function may provide pagination or implement scrollable results, allowing users to navigate through multiple pages or scroll through the results to view additional items.

#### **6. Extension Points**

##### **1) Search Filters:**

Extend the search functionality by providing advanced filtering options. This could include filters based on genre, author, publication date, language, availability, or any other relevant attributes. Advanced filters allow users to narrow down their search results and find books that meet specific criteria.

##### **2) Sorting:**

Allows users to organize the search results based on certain criteria, such as relevance, alphabetical order, publication date, etc. It provides users with more control over how the search results are presented and helps them find the desired books more efficiently.

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## **5. VIEW BOOK DETAIL**

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### **1. Brief Description**

- This use case describes how users can view detailed information about a specific book.
- The actors starting this use case are Reader, Librarian, Admin.

### **2. Flow of Events**

#### ***2.1. Basic Flow***

- 1) The user selects a book from a list or search results to view its details;
- 2) The system retrieves the detailed information about the selected book;
- 3) The system displays the book's title, author, description, cover image, ratings, reviews, availability, and any other relevant details on a dedicated book detail page;
- 4) The user can scroll or navigate through the book detail page to review all the available information.

#### ***2.2. Alternative Flows***

- 1) Invalid book detail:

In stage 1, if the book information is not available or cannot be retrieved, the system displays an error message indicating the issue.

### **3. Special Requirements**

- 1) Available Books:

There should be books or resources available in the library database for the view detail function to retrieve and display.

- 2) Friendly interface:

The system should provide a friendly interface for the book detail page, ensuring a clear and organized layout, visually appealing elements, and readable typography. Intuitive navigation and user-friendly actions should be incorporated, while minimizing distractions and following accessibility guidelines to create a seamless and user-centric experience.

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#### **4. Preconditions**

##### **1) Book Availability:**

The book must be available in the system's database or catalog. If the book is not available or has been removed, the system should handle such cases and provide appropriate feedback to the user.

##### **2) Selection of Book:**

The user must have selected a specific book from a list, search results, or any other means of book discovery within the system. The book detail page should correspond to the selected book to provide accurate and relevant information.

#### **5. Postconditions**

##### **1) Display Book Details:**

The system successfully displays the comprehensive details of the selected book, including the title, publish year, author, category, description, sourcetype, language, book cover. The information is presented accurately and in a user-friendly manner.

#### **6. Extension Points**

##### **1) Book Recommendations**

The View Book Detail function can be extended to include personalized book recommendations based on the selected book, enabling users to discover related titles of interest.

## **6. PROCESS REQUEST TO CHANGE BOOKS**

---

### **1. Brief Description**

- This use case describes how an Administrators manage changes to books and other products in the Wellib System.
- The actor starting this use case is Administrators.

### **2. Flow of Events**



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### **2.1. Basic Flow**

- 1) User login to the Wellib Website as the Admin role through the login system;
- 2) Admin can access a tab of requests of changes to the books and their information by Librarians;
- 3) Administrators will have the option to Decline or Accept the changes;
- 4) As the Admin accept the changes, the system will check the data if it is valid or not;
- 5) As it is valid information, the changes will be saved to the database;
- 6) System displays a “Saved successfully” message.

### **2.2. Alternative Flows**

- 1) Decline the request

If the Administrator decides to decline the request to change the information as step 3, the request will disappear from the tab and the Librarian will receive a notification that the request has been declined.

- 2) Invalid Information

After the Administrator accepted the request as in step 3, the system will run and check if the information is fit for the current books information template, if the information is different from the format, it will be deemed invalid and will not be saved to the database, instead an “ERROR” message will appear to inform the Administrator that that information is invalid.

## **3. Special Requirements**

- 1) Administrators

The user must be an Administrator to access this functionality

- 2) Well-Sorted Tab

To help Administrators understand and process many requests, the requests tab should be clear, concise and well organized

## **4. Preconditions**

- 1) Librarian requests

For this functionality to occur, there must already be requests made by Librarians and such

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changes must already be filtered by giving the information correctly on the Librarian side of books management.

## 5. Postconditions

- 1) Successful Edit

If the changes to the products have been successful, they will be saved to the database and will be reflected on the “changes made history tab” .

## 6. Extension Points

There are no extension points associated with this use case.

# 7. CHANGE ELEMENTS OF MODELS

---

## 1. Brief Description

- This use case describes Administrators’s ability to make changes to functionalities and tools of the Wellib System.
- The actor starting this use case is Administrators.

## 2. Flow of Events

### 2.1. Basic Flow

- 1) User login to the Wellib Website as the Admin role through the login system;
- 2) Admin can access a page to add functionalities and more options to an already existing system in the website;
- 3) Administrators will have the option to Add new elements or Edit or Delete existing ones;
- 4) If the Admin chose to Add, a new category of the functionality will appear with the same template as implemented and will be up to the Administrators to utilize;
- 5) When done with the action, the system will confirm if the changes are to be saved;
- 6) Confirming will implement the new functionality to the system.

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## **2.2. Alternative Flows**

### **– To Edit a functionality:**

- 1) If the Administrator decided chose to Edit in step 3, a page with the functionality will appear along with its information and abilities;
- 2) The Admin can now make changes to that functionality;
- 3) Confirming the changes will saved to the system.

### **– To Delete a functionality:**

- 1) If the Administrator decided chose to Delete in step 3, a message will appear and confirm if the user want to remove said functionality;
- 2) Confirming the changes will delete the functionality from the system.

## **3. Special Requirements**

- 1) Administrators

The user must be an Administrator to access this functionality.

- 2) Clear UI with organized categories

Since the system will have many different types of functionalities, have them be organized will be helpful for development.

## **4. Preconditions**

- 1) Models

Functionalities that are implemented into the system need to have a pre-existing template via the Models coded into the system itself for the Administrators to use and edit

## **5. Postconditions**

- 1) Successful Implementation

If the Implementation it successful, the changes will immediately reflected on the system itself

## **6. Extension Points**

There are no extension points associated with this use case.

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## 8. ACCOUNTS MANAGEMENT

---

### 1. Brief Description

- This use case describes Administrators's ability to make changes to accounts for users of the Wellib System.
- The actor starting this use case is Administrators.

### 2. Flow of Events

#### 2.1. Basic Flow

- 1) User login to the Wellib Website as the Admin role through the login system;
- 2) Admin can access a page to add accounts and more options to an already existing system in the website;
- 3) Administrators will have the option to Add new accounts or Edit or Delete existing ones;
- 4) If the Admin chose to Add, a new prompt will appear specifying for which type of user the account will be created for, including Administrators, Librarians, or Readers;
- 5) When chosen, the account will be created with the template implemented in the system for that specific user and a confirmation pop up will appear;
- 6) Confirming will add said accounts to the database.

#### 2.2. Alternative Flows

- **To Edit an account:**
  - 1) If the Administrator decided to choose to Edit in step 3, a page with the account will appear along with its information, contents and rights;
  - 2) The Admin can now make changes to that account;
  - 3) Confirming the changes will saved to the system.
- **To Delete an account:**
  - 1) If the Administrator decided to choose to Delete in step 3, a message will appear to confirm if the user want to remove said account;
  - 2) Confirming the changes will delete the account from the database.

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### 3. Special Requirements

#### 1) Administrators

The user must be an Administrator to access this functionality

### 4. Preconditions

#### 1) Accounts Rights

Different accounts for different users will have different abilities and rights and the system itself with varying levels of accessibility that would be implemented into the system beforehand so the Administrators can grant functionalities to a specific account

### 5. Postconditions

#### 1) Successful Implementation

If the Implementation it successful, the account will immediately active

### 6. Extension Points

There are no extension points associated with this use case.

## 9. READERS ACCOUNTS MANAGEMENT

---

### 1. Brief Description

- This use case describes how an Administrators manage changes to Readers accounts in the Wellib System.
- The actor starting this use case is Administrators.

### 2. Flow of Events

#### 2.1. Basic Flow

- 1) User login to the Wellib Website as the Admin role through the login system;
- 2) Admin can access a tab of requests to register a new account as a reader;
- 3) Administrators will have the option to Decline or Accept the request;
- 4) As the Admin accept the request, the system check the account if it is valid or not;

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- 5) As the account is valid, the account will be created and saved to the database;
- 6) System displays a “Created account successfully” message.

## **2.2. Alternative Flows**

- 1) Decline the request

If the Administrator decides to decline the request to the account as step 3, the request will disappear from the tab and the User will receive a notification that the request has been declined.

- 2) Invalid accounts

After the Administrator accepted the request as in step 3, the system will run and check if the account is invalid or if it has any overlapping with existing ones, if yes, it will be deemed invalid and will not be saved to the database, instead an “ERROR” message will appear to inform the Administrator that that information is invalid.

## **3. Special Requirements**

- 1) Administrators

The user must be an Administrator to access this functionality

- 2) Well-Sorted Tab

To help Administrators understand and process many requests, the requests tab should be clear, concise and well organized

## **4. Preconditions**

- 1) Users requests

For this functionality to occur, there must already be requests made by users to create a new account

## **5. Postconditions**

- 1) Successful Edit

If the account has been successfully added, it will be saved to the database and will be reflected on the “account list”.

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## 6. Extension Points

There are no extension points associated with this use case.

# 10. REPORT

---

## 1. Brief Description

- This use case describes how an Administrators can export reports to the overall information of books in the Wellib System.
- The actor starting this use case is Administrators.

## 2. Flow of Events

### 2.1. Basic Flow

- 1) User login to the Wellib Website as the Admin role through the login system;
- 2) There will be a report option available to the Administrator at all time that can be selected;
- 3) When selected the system will run through the entire database and account for all relevant information such as activity history, the total number of books currently, the categories, languages,...;
- 4) After scanning through the system, the information will be documented in a file and sent to the admin.

### 2.2. Alternative Flows

If the process is halted or encountered an unexpected error, it will display “Error, report can not be documented”.

## 3. Special Requirements

The report must be in a clear and easy to read format

## 4. Preconditions

There must be readily information available in the database

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## 5. Postconditions

There will be a file saved to the administrator device to access and read

## 6. Extension Points

There are no extension points associated with this use case.

# 11. VIEW READER INFORMATION

---

## 1. Brief Description

- This use case describes how a librarian can look up reader information to contact in need.
- The actors starting this use case are Librarian.

## 2. Flow of Events

### 2.1. Basic Flow

- 1) Librarian access to the Wellib Website and Login to their account;
- 2) On the management taskbar, click the Reader Information button and the system will show a list of reader information on the screen;
- 3) On the find bar, librarian type name or library ID number of who they want to find;
- 4) Librarians click the Find button;
- 5) System checks on the reader information;
- 6) System displays a message with reader information which the librarian needs.

### 2.2. Alternative Flows

- 1) Not found reader information:

If in the basic flow the system cannot find the name (or library ID number), an error message is displayed. The librarian can type in a new name/library ID number or choose to cancel the operation, at which point the use case ends.

- 2) Pressing Enter instead of Find button:

After the librarian finishes typing in the name/library ID number, the librarian can press the Enter button on the keyboard then the system will perform a similar operation as stage



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4 in basic flow.

### 3. Special Requirements

- 1) Readers can not access this confidential list of reader information.
- 2) User-Friendly Interface: The function should provide a user-friendly interface, allowing librarians to enter their input keyword easily and providing clear feedback in case of authentication failures (e.g., not found reader information).
- 3) When the librarian does not have correct keywords to search, they can choose to look up the entire list of valid reader accounts of the library management system.

### 4. Preconditions

- 1) Librarian Account:

If the librarians want to access a list of reader information, their registered account must be an active librarian account in the library management system.

- 2) Valid input information:

Choose the correct search mode (search by Name or Library ID number) before clicking the Find button.

### 5. Postconditions

- 1) Successful finding:

If the librarian provides keyword input in correct search mode (search by Name or Library ID number) and that input is already in the reader information database, the postcondition is that the librarian can have reader information they need.

### 6. Extension Points

- 1) Request admin to add reader accounts functionality:

Implement a "Request to add reader accounts" feature that allows librarians to request to admin to add reader accounts. This feature provides a way for librarians to notify admin of reader accounts without having to contact them directly.

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## 12. LOAN BOOKS

### 1. Brief Description

- This use case describes how a librarian can allow readers to borrow books.
- The actors starting this use case are Librarian.

### 2. Flow of Events

#### 2.1. Basic Flow

- 1) Librarian access to the Wellib Website and Login to their account;
- 2) On the management taskbar, click the Loaning button;
- 3) Librarian type in the library ID number of the reader who wants to borrow books and click OK;
- 4) System checks on the reader account;
- 5) Librarian type in the book ID number which the reader wants to borrow;
- 6) System checks book available status;
- 7) Click the Agree button to accept the loan;
- 8) System will update book status, update circulation records and display a successful loan message.

#### 2.2. Alternative Flows

- 1) Invalid reader ID

If the input reader ID cannot be found in the reader account database, an error message is displayed. The librarian can type in reader ID number or choose to cancel the operation, at which point the use case ends.

- 2) The reader ID number is restricted from borrowing books

If the reader ID number typed in is restricted from borrowing books (e.g., in overdue return status), there will be a warning notification for the librarian to know and decide whether to lend or not. If the librarian refuses to lend, they can choose to cancel the operation, at which point the use case ends.

- 3) The book ID number is invalid.

If the book ID cannot be found in the book database, an error message is displayed. The

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librarian can type in book ID number or choose to cancel the operation, at which point the use case ends.

- 4) The book is being held or has been borrowed.

If the book is being held or has been borrowed, an error message is displayed. The librarian can type in book ID number or choose to cancel the operation, at which point the use case ends.

### 3. Special Requirements

- 1) Only librarians are allowed to borrow books.
- 2) User-Friendly Interface: The function should provide a user-friendly interface, helping librarians to loan books easily and providing clear feedback in case of authentication failures (e.g., invalid reader library ID).
- 3) When borrowing books successfully, the system will notify the date that the reader has to return the borrowed book.
- 4) Circulation records must be entered carefully into the system database.

### 4. Preconditions

- 1) Librarian Account:

If a librarian wants to allow readers to borrow books, their registered account must be an active librarian account in the library management system.

- 2) Reader Account:

If a reader wants to borrow a book, their account must be an active reader account in the library management system, and they have not to be restricted from borrowing books.

- 3) Book ID number:

The book ID number must be a valid ID in the system's book database.

### 5. Postconditions

- 1) Successful loaning:

If the librarian provides a valid reader ID number without borrowing restrictions and a valid book ID number with available status, they can lend the book to the reader.

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## 6. Extension Points

### 1) Renew Functionality:

Implement a renew feature where librarians can extend the book return within a specified time. This feature provides a way for librarians to help readers extend the date that they have to return books if they need more time to read.

# 13. RETURN BOOKS

---

## 1. Brief Description

- This use case describes how a librarian can allow readers to return books.
- The actors starting this use case are Librarian.

## 2. Flow of Events

### 2.1. Basic Flow

- 1) Librarian access to the Wellib Website and Login to their account;
- 2) On the management taskbar, click the returning button;
- 3) Librarian type in the library ID number of the reader who wants to return books and click OK;
- 4) System checks on the reader account;
- 5) System will display a list of the reader's current borrowed books;
- 6) Librarians tick the checkboxes of the book that the reader wants to return;
- 7) The system will check the overdue status of the book that the reader wants to return;
- 8) Click the Agree button to accept the return;
- 9) System will update book status, update circulation records and display a successful return message.

### 2.2. Alternative Flows

#### 1) Invalid reader ID

If the input reader ID cannot be found in the reader account database, an error message is displayed. The librarian can type in reader ID number or choose to cancel the operation, at which point the use case ends.

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## 2) Returning overdue books

At stage 7, if the reader returns overdue books, there will be a warning notification in stage 7 for the librarian to know and print the fine receipt (print or online file) at the end of this process.

## 3. Special Requirements

- 1) Only librarians can return books.
- 2) User-Friendly Interface: The function should provide a user-friendly interface, helping librarians to record the return book easily and providing clear feedback in case of authentication failures (e.g., invalid reader library ID, overdue notification).
- 3) Circulation and Return records must be entered carefully into the system database.

## 4. Preconditions

- 1) Librarian Account:

If a librarian wants to allow a reader to return a book, their registered account must be an active librarian account in the library management system.

- 2) Reader Account:

If a reader wants to return a book, their account must be an active reader account in the library management system, and has no pending fines.

## 5. Postconditions

- 1) Successful return:

If the librarian provides a valid reader ID number without borrowing restrictions and a valid book ID number with available status, they can lend the book to the reader.

## 6. Extension Points

There are no extension points associated with this use case.

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## 14. POST NEWS

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### 1. Brief Description

- This use case describes how a librarian can post news or notification on the library website.
- The actors starting this use case are Librarian.

### 2. Flow of Events

#### 2.1. Basic Flow

- 1) Librarian access to the Wellib Website and Login to their account;
- 2) On the management taskbar, click Post News;
- 3) Click Add News;
- 4) Enter the News Title;
- 5) Enter the content News in the text box;
- 6) Click Publish to save changes and upload to the website.

#### 2.2. Alternative Flows

- 1) Duplicate News Title

News Title acts as the primary key for content. If the News Title is a duplicate, an error message is displayed. The librarian must either enter a new unique News Title or choose to cancel the operation, at which point the use case ends.

### 3. Special Requirements

- 1) Only librarians can post news.
- 2) User-Friendly Interface: The function should provide a user-friendly interface, helping librarians to post news easily and providing clear feedback in case of authentication failures (e.g., Duplicate News Title).

### 4. Preconditions

- 1) Librarian Account:

If a librarian wants to allow a reader to return a book, their registered account must be an active librarian account in the library management system.

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## 2) Reader Account:

If a reader wants to return a book, their account must be an active reader account in the library management system, and has no pending fines.

## 5. Postconditions

- 1) Post News Successfully: Guests can read news that is posted by the librarian.
- 2) Edit posted news: Librarians have full authority to edit and delete posted news.

## 6. Extension Points

- 1) Comment Functionality: The librarian can interact with readers by commenting below the news posts.

# 15. ADDING BOOK REQUEST

---

## 1. Brief Description

- This use case describes how a librarian can manage books information by sending requests to the administrator.
- The actors starting this use case are Librarian.

## 2. Flow of Events

### 2.1. Basic Flow

- 1) Librarian access to the Wellib Website and Login to their account;
- 2) On the management taskbar, click the Book Bibliographic button;
- 3) Click the add button of the book that needs to be added;
- 4) On the text box to add, enter all the change needs for that book;
- 5) Click Submit request to complete and wait for Admin's response.

### 2.2. Alternative Flows

There are no alternative flows associated with this use case.

## 3. Special Requirements

- 1) Only librarians can send requests to admin to add book information.

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- 2) User-Friendly Interface: The function should provide a user-friendly interface, helping librarians to send requests easily and providing clear feedback (e.g., response from admin).

#### **4. Preconditions**

- 1) Librarian Account:

If a librarian wants to request the admin to add books, their registered account must be a valid librarian account in the library management system.

#### **5. Postconditions**

- 1) Successful submit request:

After clicking the Submit request, this form will be sent to the admin to update.

- 2) Receive response from Admin:

Librarians will be notified of the changes by the admin.

#### **6. Extension Points**

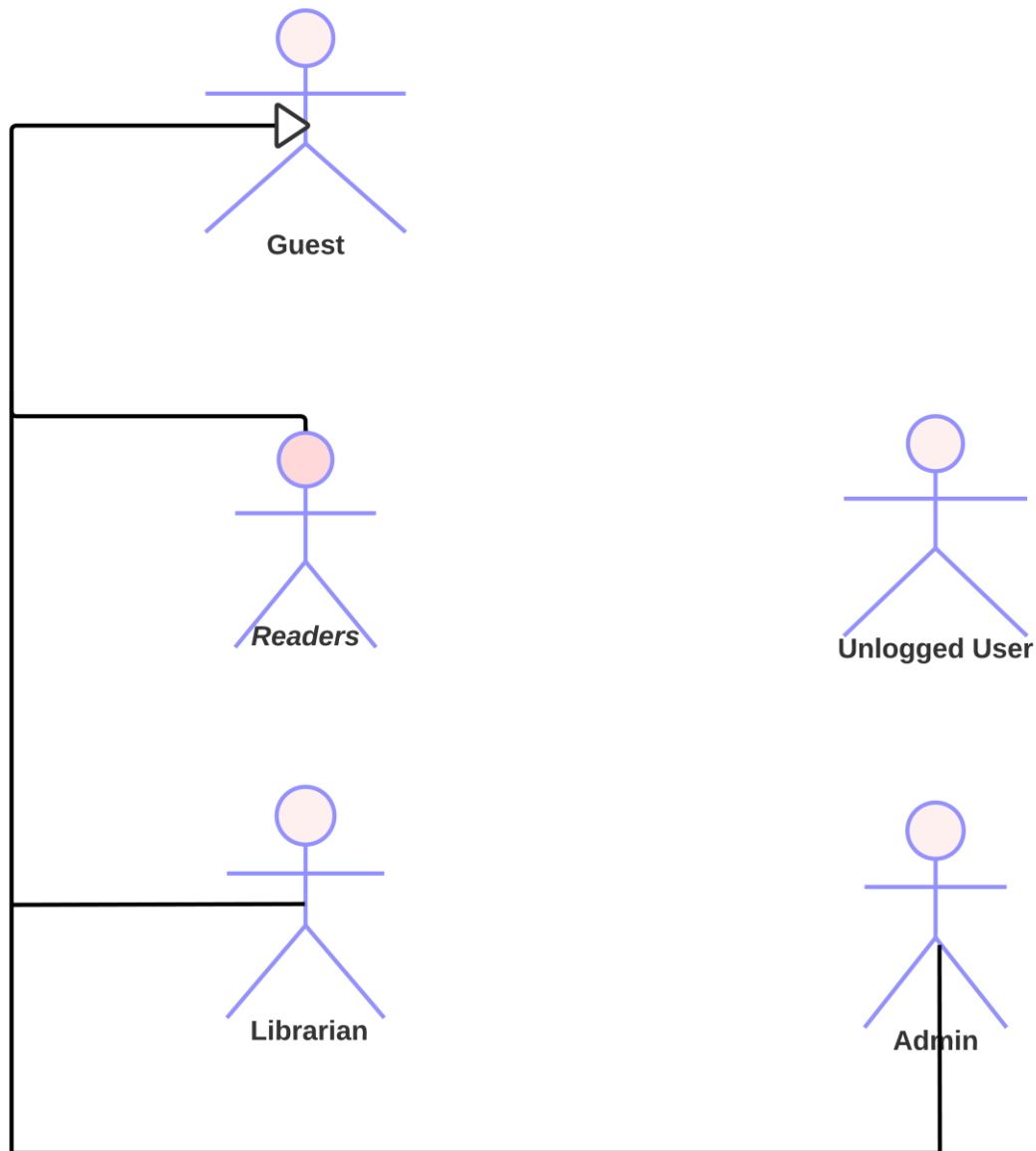
There are no extension points associated with this use case.



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## II. Use-case diagrams

### 1. OVERVIEW



*Diagram 1: General UML diagram for actors*

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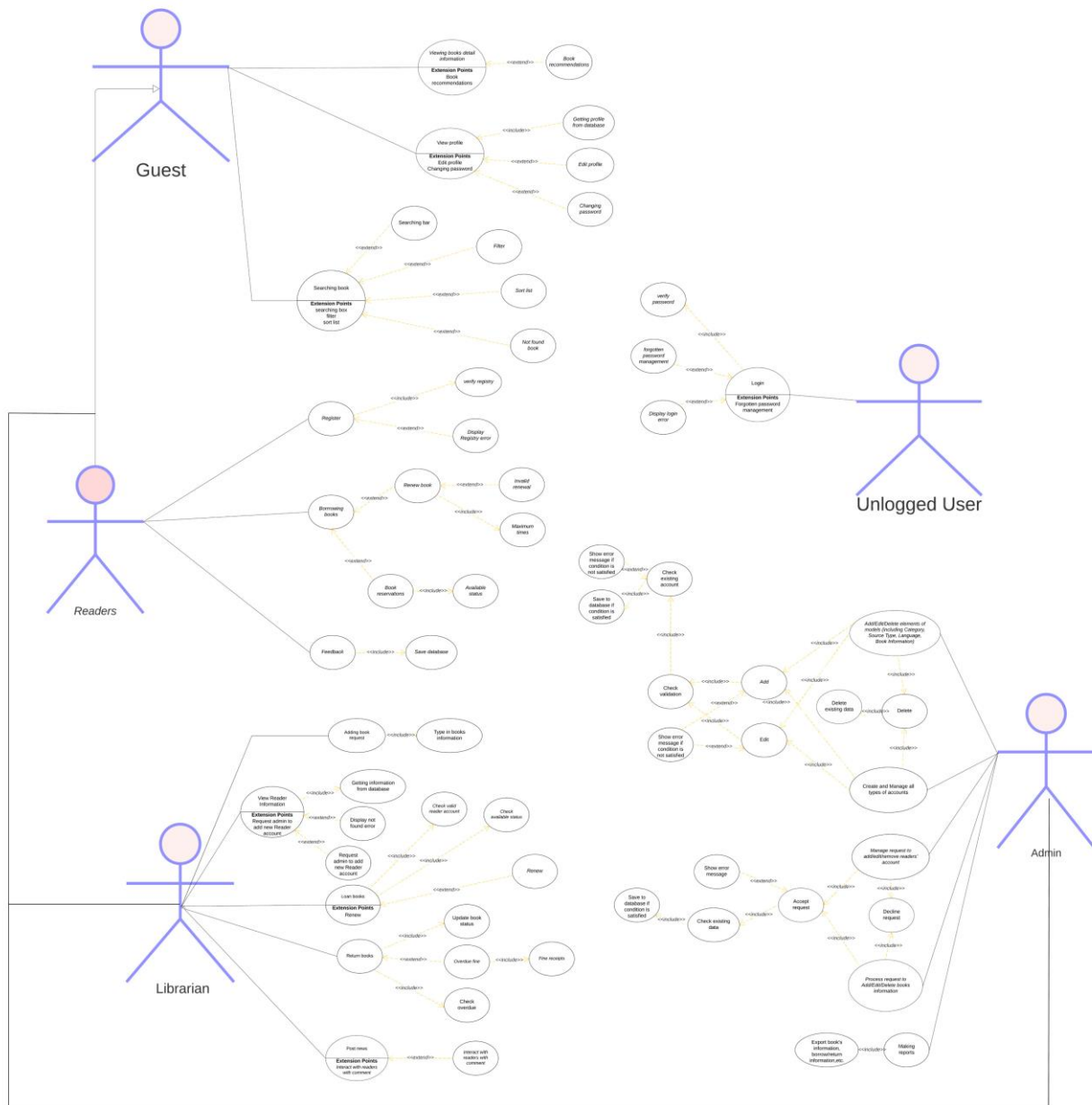
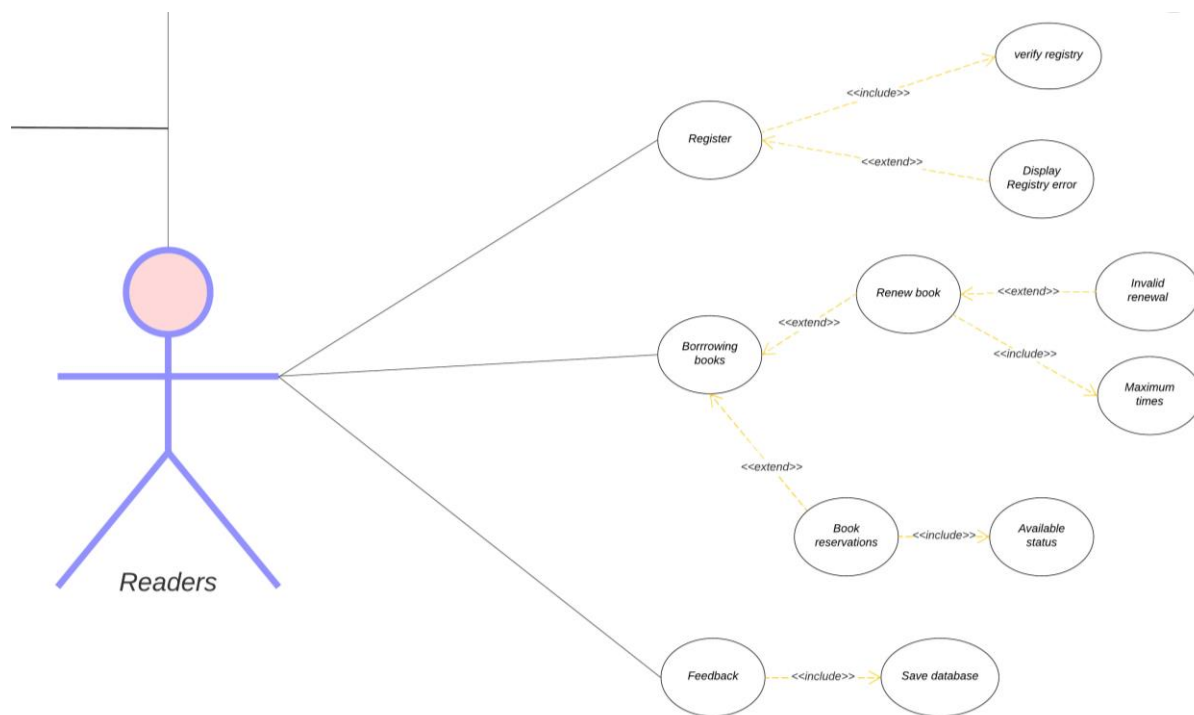


Diagram 2: General UML diagram for Wellib Library System Management

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## 2. READERS



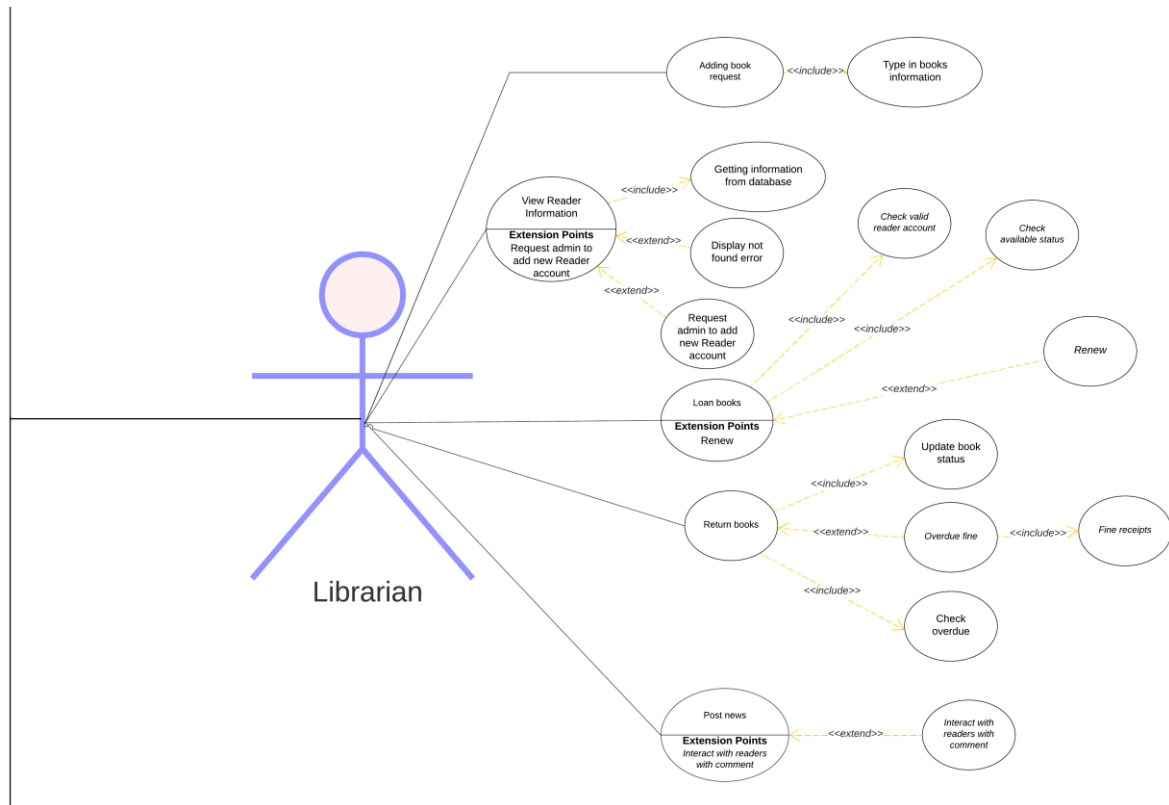
*Diagram 3: UML diagram for Readers*

**Main use case of Readers** shown in this UML Diagram:

Register, Borrowing books and Feedback

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### 3. LIBRARIANS



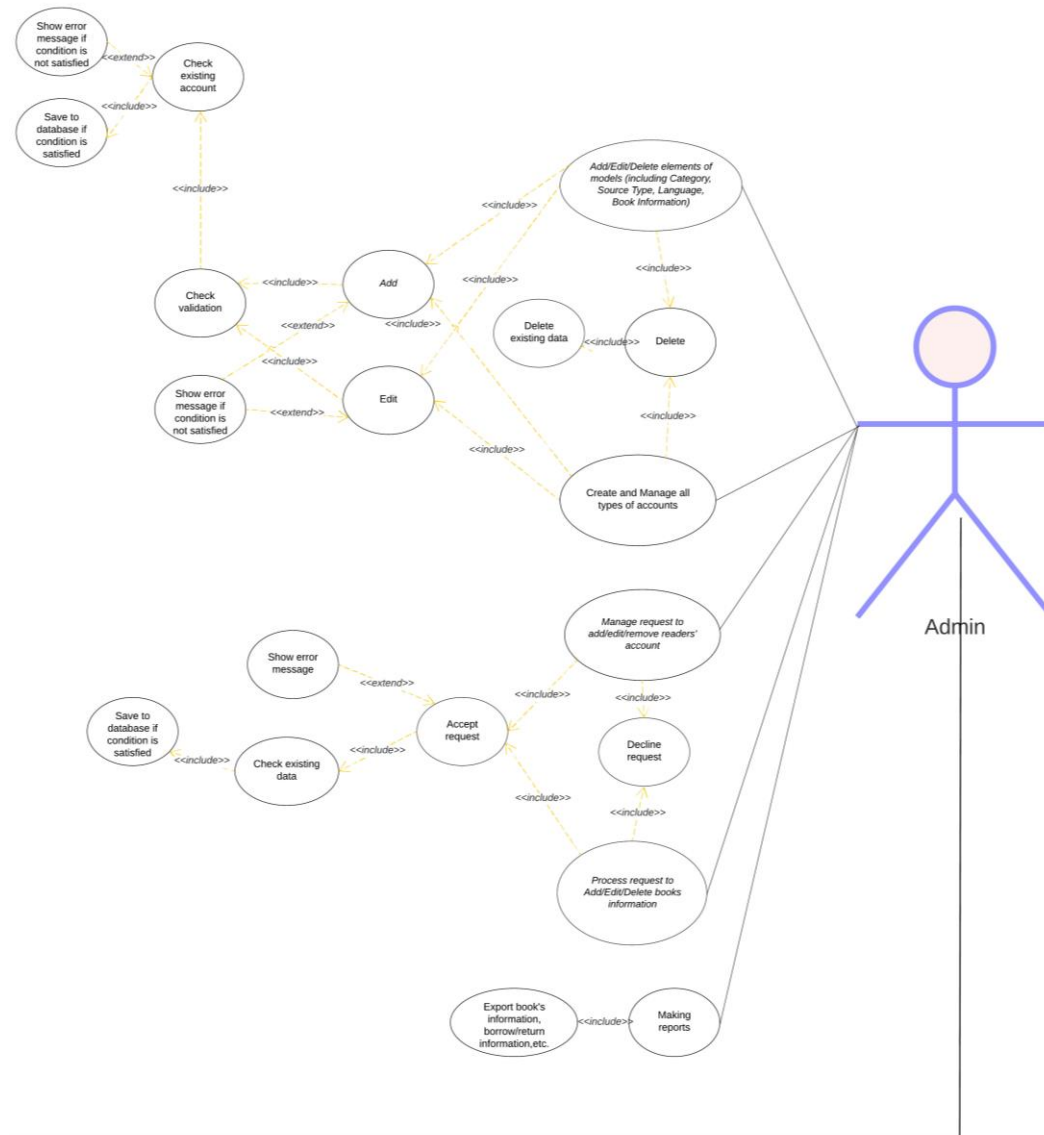
*Diagram 4: UML diagram for Librarians*

**Main use case of Librarians** shown in this UML Diagram:

View Reader Information; Loan books; Return books; Post news; Adding book request.

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## 4. ADMINISTRATION



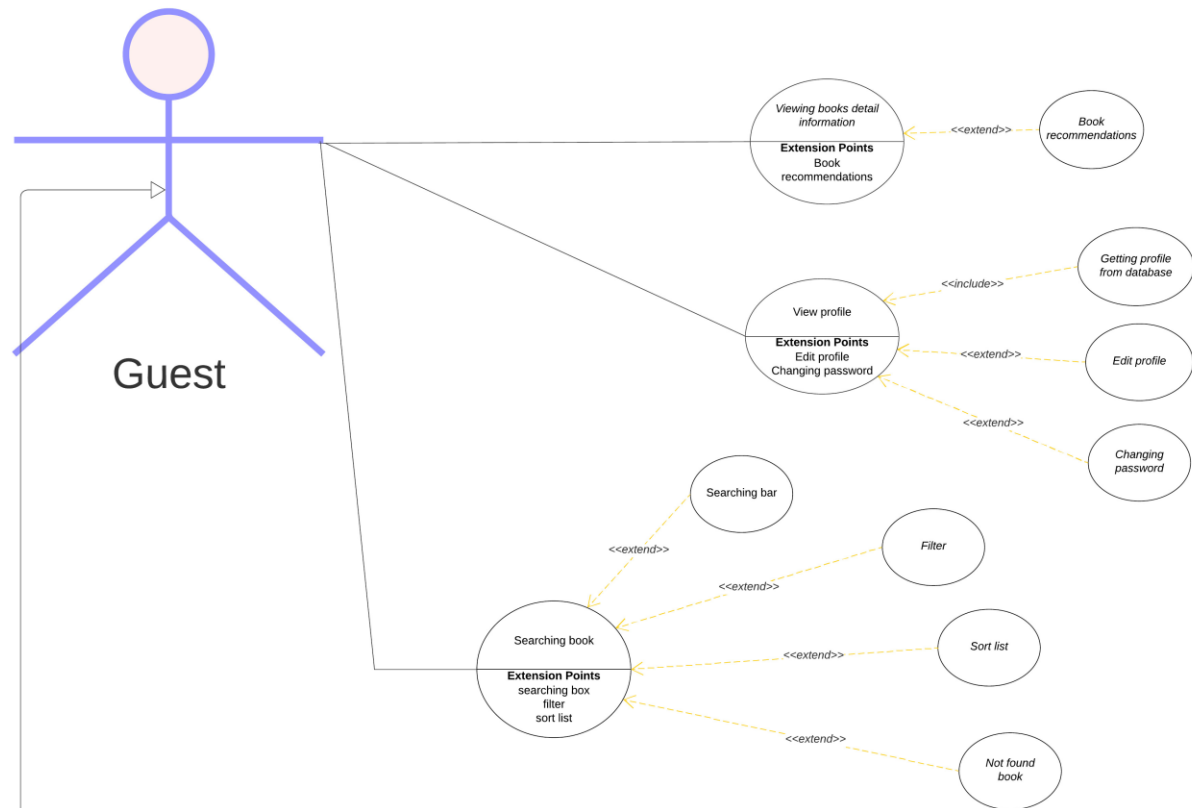
**Diagram 5: UML diagram for Admin**

**Main use case of Admin** shown in this UML Diagram:

Add/Edit/Delete elements of models; Create and Manage all types of accounts; Manage request to add/edit/remove readers' account; Process request to Add/Edit/Delete books information; Making reports.

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## 5. GUEST



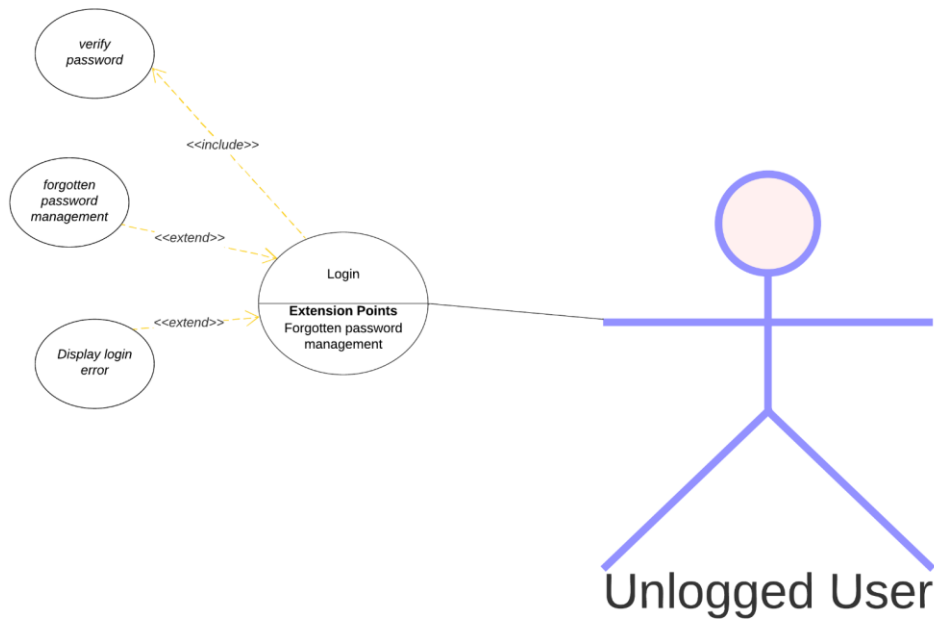
*Diagram 6: UML diagram for Guest*

**Main use case of Guest** shown in this UML Diagram:

Viewing books detail information; View profile; Searching book.

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## 6. UNLOGGED USER



*Diagram 7: UML diagram for Unlogged User*

**Main use case of Unlogged User** shown in this UML Diagram: Login