# Software Requirements Specifications

## Use case diagram

## List of actors

|  |  |  |
| --- | --- | --- |
| **No.** | **Actor** | **Description** |
| 1 | Guest |  |
| 2 | Hust Student |  |
| 3 | Hust Lecturer |  |
| 4 | Non-Hust Member |  |
| 5 | Librarian |  |
| 6 | System |  |

## List of use cases

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Use Case** | **Primary Actor** | **Secondary Actor** |
| UC-01 | Register library card | Guest | N/A |
| UC-02 | Fill up register form | Guest | N/A |
| UC-03 | View list of library services | Guest | N/A |
| UC-04 | Log in | Hust Student | Hust Lecturer, Non-Hust Member, Librarian |
| UC-05 | Log out | Hust Student | Hust Lecturer, Non-Hust Member, Librarian |
| UC-06 | Reset password | Hust Student | Hust Lecturer, Non-Hust Member, Librarian |
| UC-07 | View profile | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-08 | Edit profile details | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-09 | View history of borrowing and returning book | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-10 | Feedback | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-11 | Search book | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-12 | Borrow book | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-13 | Return book | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-14 | Renew book | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-15 | Reserve book | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-16 | Pay fine by bank account | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-17 | Check bank balance | Hust Student | Non-Hust Member, Hust Lecturer |
| UC-18 | Add book | Librarian | N/A |
| UC-19 | Remove book | Librarian | N/A |
| UC-20 | Update book details | Librarian | N/A |
| UC-21 | Add library card | Librarian | N/A |
| UC-22 | Remove library card | Librarian | N/A |
| UC-23 | Search library card | Librarian | N/A |
| UC-24 | Update library card details | Librarian | N/A |
| UC-25 | Add non-admin account | Librarian | N/A |
| UC-26 | Remove non-admin account | Librarian | N/A |
| UC-27 | Update non-admin account details | Librarian | N/A |
| UC-28 | Search non-admin account | Librarian | N/A |
| UC-29 | Ban non-admin account | Librarian | N/A |
| UC-30 | Unban non-admin account | Librarian | N/A |
| UC-31 | Add borrower | Librarian | N/A |
| UC-32 | Fill out add-borrower form | Librarian | N/A |
| UC-33 | Remove borrower | Librarian | N/A |
| UC-34 | Update borrower details | Librarian | N/A |
| UC-35 | Search borrower | Librarian | N/A |
| UC-36 | View ban-admin accounts | Librarian | N/A |
| UC-37 | View borrowing book in a period | Librarian | N/A |
| UC-38 | Send overdue notifications | System | N/A |
| UC-39 | Alert for upcoming due date books | System | N/A |

## Use case specification

### Register library card

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Fill up register form

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### View list of library services

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Log in

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Use Case Specification** | | | | | | | |
| **Use Case ID:** | | 04 | | | | | |
| **Use Case Name:** | | Log in | | | | | |
| **Created By:** | | Ta Duc Duy | **Date Created:** | | | Aug 8th, 2024 | |
| **Primary Actor:** | | Hust Student | **Secondary Actors:** | | | Hust Lecturer, Non-Hust Member, Librarian | |
| **Trigger:** | | User is on the homepage of the app. He/she wants to be verified to access the library’s resources corresponding to his/her role. | | | | | |
| **Description:** | | This use case allows various types of users (Hust Students, Hust Lecturers, Non-Hust Members, and Librarians) to log in to the library management system. The system verifies the user's credentials and grants access to the system's resources based on the user's role and permissions. | | | | | |
| **Preconditions:** | | The user has already registered an account | | | | | |
| **Post–conditions:** | | 1. The user is authenticated 2. The user can now perform actions according to their role. 3. History of log-in is recorded. | | | | | |
| **Normal Flow:** | | 1. The user navigates to the library management system's login page. 2. The system displays fields for the user to enter their username and password. 3. The user enters their credentials and submits the form. 4. The system validates the username and password:    * If valid, the system authenticates the user.    * If invalid, the system prompts the user to re-enter the correct credentials. 5. Upon successful authentication, the system directs the user to their respective dashboard:    * Hust Student is redirected to the student dashboard.    * Hust Lecturer is redirected to the lecturer dashboard.    * Non-Hust Member is redirected to the member dashboard.    * Librarian is redirected to the librarian dashboard. 6. The user can now access features and resources based on their role. | | | | | |
| **Alternative Flows:** | | N/A | | | | | |
| **Exceptions:** | | **Invalid Credentials:**   * If the user enters incorrect credentials multiple times, the system records the attempts and may trigger a security alert if suspicious activity is detected. | | | | | |
| **Priority:** | | **High** | | | | | |
| **Frequency of Use:** | | Very frequent | | | | | |
| **Business Rules:** | | N/A | | | | | |
| **Other Information:** | | N/A | | | | | |
| **Assumptions:** | | N/A | | | | | |
| **Use Case Specification** | | | | | | |
| **Use Case No.:** | 04 | | | | | |
| **Use Case Name:** | Log in | | | | | |
| **Created By:** | Tạ Đức Duy | | | | | |
| **Date:** | Aug 9th, 2024 | | | **Priority:** | High | |
| **Actors:** | Hust Student, Hust Lecturer, Non-Hust Member, Librarian | | | | | |
| **Summary:** | This use case allows various types of users (Hust Students, Hust Lecturers, Non-Hust Members, and Librarians) to log in to the library management system. The system verifies the user's credentials and grants access to the system's resources based on the user's role and permissions. | | | | | |
| **Trigger:** | User wants to be verified to access the library’s resources corresponding to his/her role. | | | | | |
| **Preconditions:** | The user has already registered an account. | | | | | |
| **Post–conditions:** | 1. The user is authenticated 2. The user can now perform actions according to their role. 3. History of log-in is recorded. | | | | | |
| **Main Success Scenario/Main Flow/Normal Flow/Main Path:**   |  |  |  | | --- | --- | --- | | **Step.** | **Actor Action** | **System Response** | | 1 | User selects login section in the homepage of the app | A form to fill out username and password is shown. Also, two types of login (login by HUST account, login by library account) are shown. | | 2 | The user clicks “login by HUST account”  **[Alternative 1]** | The system requires the user to use information in HUST account for login | | 3 | The user enters a valid username and password |  | | 4 | The user clicks “log in” button | The system verifies user account in database. Upon successful authentication, the system directs the user to their respective dashboard based on their role.  **[Exception 1], [Exception 2]** | | | | | | | |
| **Alternative Flows:**   |  |  |  | | --- | --- | --- | | **No.** | **Actor Action** | **System Response** | | 1 | The user clicks “login by library account” | The system requires the user to use information in the library account for login | | | | | | | |
| **Exceptions:**   |  |  |  | | --- | --- | --- | | **No.** | **Actor Action** | **System Response** | | 1 | The user enters an incorrect username or password. | The system displays an error message indicating the credentials are invalid and prompts the user to try again. | | 2 | The user exceeds the maximum number of failed login attempts. | The system locks the account temporarily and informs the user to try again after a cooldown period or contact support. | | | | | | | |
| **Business Rules:** | <Những câu phát biểu của khách hàng/user đưa ra để gài/khống chế/ràng buộc cái ngữ cảnh hoạt động của một tác vụ/công việc/tính năng/chức năng mà người dùng vẫn làm và thao tác hàng ngày; còn gọi là những quy tắc xử lí thông tin, *ví dụ 1: Ngày giờ phải theo định dạng dd/mm/yyyy HH:MM, giờ đồng hồ theo thang đo 24 giờ; ví dụ 2: Đơn hàng từ 1.000.000đ sẽ giảm giá x% theo thông tin khuyến mãi tại thời điểm tạo đơn*> | | | | | |

### Log out

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Reset password

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### View profile

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Edit profile details

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### View history of borrowing and returning book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Feedback

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Search book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Borrow book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Return book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Renew book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Reserve book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Pay fine by bank account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Check bank account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Add book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Remove book

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Update book details

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Add library card

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Remove library card

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Search library card

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Update library card details

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Add non-admin account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Remove non-admin account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Update non-admin account details

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Search non-admin account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Ban non-admin account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Unban non-admin account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Add borrower

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Fill out add-borrower form

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Remove borrower

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Update borrower details

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Search borrower

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### View ban non-admin account

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### View borrowing books in a period

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Send overdue notifications

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |

### Alert for upcoming due date books

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Specification** | | | |
| **Use Case ID:** |  | | |
| **Use Case Name:** |  | | |
| **Created By:** |  | **Date Created:** |  |
| **Primary Actor:** |  | **Secondary Actors:** |  |
| **Trigger:** |  | | |
| **Description:** |  | | |
| **Preconditions:** |  | | |
| **Post–conditions:** |  | | |
| **Normal Flow:** |  | | |
| **Alternative Flows:** |  | | |
| **Exceptions:** |  | | |
| **Priority:** | **High (Medium, Low)** | | |
| **Frequency of Use:** |  | | |
| **Business Rules:** |  | | |
| **Other Information:** |  | | |
| **Assumptions:** |  | | |