# Use Cases for Automated Library Assistant

## Use Cases:

1. Search (Query)
2. Check out an item
3. Return an item
4. Reserve an item
5. Pay Fine
6. Transaction History
7. Display latest acquisitions of books and videos on home screen
8. Get Membership
9. Library Administrator Login
10. Find the number of books (and videos) that are carried by the library in every category.
11. Find the total number of members
12. Find the number of books/items currently checked out/issued.
13. Find the title of the book checked out the most in a month or year.
14. Find total amount of fines collected in a specific period of time

## Use Cases for Member

## Use Case 1:

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| **Use-Case : (Goal):** Search for an item by title/author/book number  **Actors:** Member, Non-member, Library administrator  **Type:** Primary, Essential  **Description:** Actor wants to query the existence or location of a book, by title, author, or a keyword in the title.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Actor opens the Library Automation Assistant System.  **3.** Chooses to search an item from menu bar.  **5.** Selects to search by title, author or keyword in the title. Enters the text and clicks on “Search” button. | **System Response**  **2.** System opens up and displays a menu of choices.  **4.** Displays the search menu panel.  **6.** Checks the availability of an item and displays the result showing the list of items including title, author, type (fiction, non-fiction) and its location. |
| **Alternative Course:** | |
|  | **Line 6:** If an item is not found, then displays a message “No match Found.” |

## Use case 2:

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| **Use-Case : (Goal):** Check out an item from the library  **Actors:** Member  **Type:** Primary, Essential  **Description:** Actor wants to check out an item.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Member chooses to “Check out an Item” under the menu “My Account” from the menu bar.  **3.** Enters the member ID & item number and clicks on “Check out” button. | **System Response**  **2.** Displays the “Check out an Item” menu panel.  **4.** Checks the availability of the item, validates item number & member ID, checks if any fine is due, and number of books issued to member before. If everything is fine then, checks out an item and displays the total number of items that are checked out including titles of each item, member ID, date on which the items are borrowed and date due. |
| **Alternative Course:** | |
|  | **Line 4:** If an item is not available, then displays the reason “Item Not Available.”  If member ID is not valid, then displays the reason “Member ID is not valid.”  If any fines are due then displays the reason “Fine is due. Please pay the fine before checking out”  If 5 books and 2 videos are already issued before, then displays a message “Check out limit is over.” |

## Use case 3:

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| **Use-Case : (Goal):** Return an item from the library  **Actors:** Member  **Type:** Primary, Essential  **Description:** Member wants to return an item.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Member chooses to “Return an Item” under the menu “My Account” from the menu bar.  **3.** Enters the member ID & item number and clicks on “Return” button. | **System Response**  **2.** Displays the “Return an Item” menu panel.  **4.** Validates the item number & member ID. If everything is fine then, returns the item and displays the message that “Book returned successfully”. |
| **Alternative Course:** |  |
|  | **Line 4:** If item number is incorrect, then displays the reason “Item number is incorrect”  If member ID is not valid, then displays the reason “Member ID is not valid.” |

## Use case 4:

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| **Use-Case : (Goal):** Reserve an item from the library  **Actors:** Member  **Type:** Primary, Essential  **Description:** Member wants to reserve an item.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Member chooses to “Reserve an Item” under the menu “My Account” from the menu bar.  **3.** Enters the member ID & item number and clicks on “Reserve” button. | **System Response**  **3.** Displays the “Reserve an Item” menu panel.  **4.** Validates the item number & the member ID and check s if the item is available. If everything is fine then, updates the list of reserved books, their status and member name and displays the message that “Book has been reserved successfully”. |
| **Alternative Course:** | |
|  | **Line 4:** If item number is incorrect, then displays the reason “Item number is incorrect”  If member ID is not valid, then displays the reason “Member ID is not valid.”  When the item becomes available, then informs the member by email. |

## Use case 5:

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| **Use-Case : (Goal):** Pay fine for items from the library  **Actors:** Member  **Type:** Primary, Essential  **Description:** Member wants to pay fine.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Member chooses to “Pay Fine” under “My Account” menu from the menu bar.  **3.** Enters the member ID & fine and clicks on “Pay” button. | **System Response**  **2.** Displays the “Pay Fine” menu panel.  **4.** Validates the member ID. If okay then, updates the fine for a member and displays the message that “Fine paid successfully”. |
| **Alternative Course:** | |
|  | **Line 4:** If member ID is not valid, then displays the reason “Member ID is not valid.” |

## Use case 6:

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| **Use-Case : (Goal):** View for the transaction history  **Actors:** Member  **Type:** Primary, Essential  **Description:** Member wants to query for transaction history of all his/her book checkouts, fines paid for a specific month or a year.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Member chooses the menu item “Transaction History” under “My Account” menu from the menu bar.  **3.** Enters the member ID and clicks on “View transaction history”. | **System Response**  **2.** Displays the “Transaction History” menu panel.  **4.** Validates the member ID. If okay then, displays the transaction history of all his/her book checkouts, fines paid for a specific month or a year. |
| **Alternative Course:** | |
|  | **Line 4:** If member ID is not valid, then displays the reason “Member ID is not valid.” |

## Use case 7:

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| **Use-Case : (Goal):** View latest acquisition of books and videos  **Actors:** Member, Non-Member, Library Administrator  **Type:** Primary, Essential  **Description:** Member wants to view latest acquisition of books and videos.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Actor opens the Library Automation Assistant System.  **3.** Chooses the home screen from menu bar. | **System Response**  **2.** System opens up and displays a menu of choices.  **4.** Displays the home screen with latest acquisition of books and videos. |

## Use Cases for Non-Member

## Use case 8:

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| **Use-Case : (Goal):** Get membership of library  **Actors:** Non-Member  **Type:** Secondary, Essential  **Description:** Non-Member wants to be a member of library.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Non-Member opens the Library Automation Assistant System.  **3.** Chooses the menu item “Get a membership card” under “Using the Library” menu from the menu bar.  **5.** Enters the name, address and clicks on “Submit”. | **System Response**  **2.** System opens up and displays a menu of choices.  **4.** Displays the “Get a Membership card” panel.  **6.** Checks the member’s address. If it is same as Springfield, then issues free membership. After the registration is completed, issues a member ID with a unique card number. |
| **Alternative Course:** | |
|  | **Line 6:** If the address is not “Springfield”, then incurs the $10 fee. After the registration is completed, issues a member ID with a unique card number. |

## Use Cases for Library Administrator

## Use case 9:

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| **Use-Case: (Goal**): Library administrator login.  **Actors:** Library administrator  **Type:** Primary, Essential  **Description:** Library administrator wants to login.  **Cross references:**  **Scenario Details:** | |
| **Actor Action**  **1.** Library administrator opens the Library Automation Assistant System.  **3.** Chooses the menu under “Library Admin” from the menu bar.  **5.** Enters the login ID and password. | **System Response**  **2.** System opens up and displays a menu of choices.  **4.** Prompts to enter login ID and password.  **6.** Checks if password is correct. If login is successful, then displays the Library Admin menu item’s panel. |
| **Alternative Course:** | |
|  | **Line 6:** If password is not incorrect, displays the message “Incorrect password”. |

## Use case 10:

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| **Use-Case: (Goal**): Find the number of books (and videos) that are carried by the library.  **Actors:** Library administrator  **Type:** Primary, Essential  **Description:** Library administrator wants to find the number of books (and videos) that are carried by the library in every category.  **Cross references:** Library administrator login (Precondition).  **Scenario Details:** | |
| **Actor Action**  **1.** Library Administrator chooses the menu “Find total items” in the menu “Library Admin” from the menu bar.  **3.** Selects “Display”. | **System Response**  **2.** Displays the “Find total items” menu panel.  **4.** Displays the number of books (and videos) that are carried by the library in every category. |

## Use case 11:

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| **Use-Case: (Goal**): Find the total number of members.  **Actors:** Library administrator  **Type:** Primary, Essential  **Description:** Library administrator wants to find the total number of members in the library.  **Cross references:** Library administrator login (Precondition).  **Scenario Details:** | |
| **Actor Action**  **1.** Library Administrator chooses the “Find total members” in the menu “Library Admin” from the menu bar.  **3.** Selects “Display”. | **System Response**  **2.** Displays the “Find total members” panel in the “Library Administrator Functions” frame.  **4.** Displays the number of members in the library. |

## Use case 12:

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| **Use-Case: (Goal**): Find the number of books/items currently out.  **Actors:** Library administrator  **Type:** Primary, Essential  **Description:** Library administrator wants to find the number of books/items currently out of library.  **Cross references:** Library administrator login (Precondition).  **Scenario Details:** | |
| **Actor Action**  **1.** Library Administrator chooses the “Find items currently out” in the menu “Library Admin” from the menu bar.  **3.** Selects “Display”. | **System Response**  **2.** Displays the “Find items currently out” panel in the “Library Administrator Functions” frame.  **4.** Displays the items currently out of library. |

## Use case 13:

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| **Use-Case: (Goal):** Find the title of the book checked out the most in a month (or a year).  **Actors:** Library administrator  **Type:** Primary, Essential  **Description:** Library administrator wants to find the book checked out the most from the library in a month (or a year).  **Cross references:** Library administrator login (Precondition).  **Scenario Details:** | |
| **Actor Action**  **1.** Chooses the “Find item checked out the most” in the menu “Library Administrator Functions” from the menu bar.  **3.** Selects the periodand clicks on “Display” | **System Response**  **2.** Displays the “Find item checked out the most” panel in the “Library Administrator Functions” frame.  **4.** Displays the book checked out the most from the library for selected period (month or year). |

## Use case 14:

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| **Use-Case: (Goal):** Find the total amount of fines that are collected in a specific period of time.  **Actors:** Library administrator  **Type:** Primary, Essential  **Description:** Library administrator wants to find the total amount of fines collected by library for a specific period of time.  **Cross references:** Library administrator login (Precondition).  **Scenario Details:** | |
| **Actor Action**  **1.** Library Administrator chooses the “Find total fines” in the menu “Library Administrator Functions” from the menu bar.  **3.** Selects the period and clicks on “Find”. | **System Response**  **2.** Displays the “Find total Fines” panel in the “Library Administrator Functions” frame.  **4.** Displays the total amount of fines collected by library for selected period of time. |