**Normal Flow -**

**Test Case 1 - Loading Program:**

Description: The user opens the program to allow a loan transaction

Pre-conditions: Program installed

Post-conditions: GUI is displayed

Data required: -

**Test Case 2 – Swipe Card:**

Description: User clicks “Borrow Books” then member swipes their card to access the members account.

Pre-conditions: Program is open, user clicks “Borrow Book” (Test Case 1 Completed)

Post-conditions: Members details are displayed (Test Case 3)

Data required: Member I.D. = 1

**Test Case 3 – Scan Book:**

Description: Scanning a books barcode to check its availability and add it to the list

Pre-conditions: Member card has been scanned (Test Case 2 Completed)

Post-conditions: Book’s details and availability is displayed (Test Case 4)

Data required: Book I.D. = 15

**Test Case 4 – Confirm Loan:**

Description: The book’s availability are shown and the member confirms loan transaction

Pre-conditions: Book is available (Test Case 3 Completed)

Post-conditions: Member can take the book, details of loan are printed (End of Test Cases)

Data required: -

**Alternate Flow – Scanning multiple books**

**Test Case 5 – Multiple books scanning:**

Description: Member can scan and borrow multiple books

Pre-conditions: Member card and book are scanned and are able to loan (Test Case 3 Completed)

Post-conditions: Multiple Books in list (Test Case 4)

Data required: Book I.D. = 14

**Alternate Flow – Member unable to borrow**

**Test Case 6 – Swipe Card Rejection:**

Description: The member’s card is swiped but is rejected to either fines or too many loans

Pre-conditions: Program is open, user clicks borrow book (Test Case 1 Completed)

Post-conditions: Members details are displayed (Test Case 7)

Data required: User I.D. = 2

**Test Case 7 – Cancel Loan:**

Description: The loan is cancelled and taken back to the main menu

Pre-conditions: Members card is swiped (Test Case 6 Completed)

Post-conditions: Loan Cancelled (End of Test Case)

Data required: -

**Alternate Flow – Unavailable Books**

**Test Case 8 – Scan Book:**

Description: Scanning a book to check its availability

Pre-conditions: Member card has been scanned (Test Case 2 Completed)

Post-conditions: Book’s status is displayed (Test Case 4)

Data required: Book I.D. = 1

**Alternate Flow – Book already scanned**

**Test Case 9 – Scan Book:**

Description: The book being scanned is already on the to be loaned list

Pre-conditions: Member card has been scanned (Test Case 3 Completed)

Post-conditions: Book’s details and availability is displayed (Test Case 4)

Data required: Book I.D. = 15

**Alternate Flow – Max Limit of Books on List**

**Test Case 10 – Scan Book:**

Description: User scanning multiple books, once 5 have been scanned, no more books are able to be added.

Pre-conditions: Member card has been scanned (Test Case 5 Completed)

Post-conditions: Book’s details and availability are displayed and the scan book option is disabled (Test Case 4)

Data required: Book I.D. = 13,12,11,10