# Scenario #1: Borrow Book

## Scenario Description

* This scenario tests the Library system for the use case where a user wishes to borrow a book or a set of books.
* A range of test cases (test scripts) will cover all the important possible flows of events based on member state, book state, member actions, etc.
* We will aim to cover as many as possible normal, alternate and exceptional scenarios / possible flows.
* For each script a set of pre-conditions, post conditions, required data, required actions and expected results will be included, as well as any necessary tear-down steps.
* As much as possible acceptance criteria will be clear, unambiguous and quantifiable.

## Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| Version # | Date | Author | Description |
| 0.1 | 24/08/2014 | Sam Stow | Initial Draft |

## Test Scripts

The following scripts will cover this scenario:

* 1. Borrow single book, no borrowing restrictions
  2. Borrow multiple books, no borrowing restrictions
  3. Borrow multiple books, reach loan limit
  4. Borrow multiple books, reject finalized list, cancel
  5. Attempt to borrow book, over fine limit
  6. Attempt to borrow book, already at loan limit
  7. Attempt to borrow book, has over due loans
  8. Borrow multiple books, cancel during scans
  9. User scans card, has existing loans, borrowing allowed, cancels
  10. Scan multiple books, reject finalized list, borrow other books, complete
  11. Scan card, member not found
  12. User attempts to scan the same book twice

## Use Case

* Borrow Book

## Test Components/Requirements

This test scenario covers the following high-level test requirements (see scripts below for specific requirements covered by each test script):

* Library members wish to borrow a book.

## User Groups

* Users (Library members) that wish to borrow book(s)

## Script 1.1: Borrow single book, no borrowing restrictions

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and borrows an available book.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should be able to scan their card
* A user should see their user details when they scan their card
* A user should be able to scan a book
* A user should be able to see the book details
* A user should be able to review their pending loans
* A user should be able to accept their pending loans and receive a loan slip

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A single book should be available in the public area, and have a valid book barcode identifying it to the library system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| A valid book | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |

### Post-conditions

* The user should have a confirmed loan for the scanned book and a loan slip should be printed.
* The system should have a reference to the confirmed loan which has references to the book and the member
* The book and the member should have a reference to the current loan
* The book status should be on loan.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, awaits scanning of book |  |
| 3 | Scan book (id = 1) | System retrieves and displays book details (Tim Smith – Wonderland) and creates a pending loan associated with it and the user. |  |
| 4 | Complete scanning | System displays pending loan for ‘Tim Smith – Wonderland’ |  |
| 5 | Confirm loan list | System prints confirmed loan details and ends. |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.1-1 | UAT | Passes |

## Script 1.2: Borrow multiple books, no borrowing restrictions

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and borrows multiple available books.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should be able to scan their card
* A user should see their user details when they scan their card
* A user should be able to scan a book
* A user should be able to see the book details
* A user should be able to scan more books
* A user should be able to review their pending loans
* A user should be able to accept their pending loans and receive a loan slip

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A set of books should be available in the public area, and each should have a valid book barcode identifying it to the library system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Valid book 2 | Author  “Tim Smith” | Title  “Wonderland 2” | Call Number  “0002” | Id  2 |  |
| Valid book 3 | Author  “Tim Smith” | Title  “Wonderland 3” | Call Number  “0003” | Id  3 |  |

### Post-conditions

* The user should have a confirmed loan for the scanned books and a loan slip should be printed.
* The system should have references to the confirmed loan which has references to the books and the member
* The books and the member should have a reference to the current loans
* The books status’s should be on loan.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, awaits scanning of book |  |
| 3 | Scan book (id = 1) | System retrieves and displays book details (Tim Smith – Wonderland) and creates a pending loan associated with it and the user. |  |
| 4 | User presses continue | System awaits next book to be scanned |  |
| 5 | Scan book (id = 2) | System retrieves and displays book details (Tim Smith – Wonderland 2) and creates a pending loan associated with it and the user. |  |
| 6 | User presses continue | System awaits next book to be scanned |  |
| 7 | Scan book (id = 3) | System retrieves and displays book details (Tim Smith – Wonderland 3) and creates a pending loan associated with it and the user. |  |
| 8 | Complete scanning | System displays 3 pending loans for books 1, 2 and 3 as above. |  |
| 9 | Confirm loan list | System prints confirmed loan details for the 3 books and ends. |  |
| 10 |  |  |  |
| 11 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.2-1 | UAT | Passes |

## Script 1.3: Borrow multiple books, reach loan limit

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and borrows 5 available books, which is the limit of loans allowed.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should be able to scan multiple books
* A user should be able to review their pending loans
* A user should be able to accept their pending loans and receive a loan slip
* A user should not be able to borrow more than 5 books

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A set of 5 books should be available in the public area, and each should have a valid book barcode identifying it to the library system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Valid book 2 | Author  “Tim Smith” | Title  “Wonderland 2” | Call Number  “0002” | Id  2 |  |
| Valid book 3 | Author  “Tim Smith” | Title  “Wonderland 3” | Call Number  “0003” | Id  3 |  |
| Valid book 4 | Author “Sian Whiley” | Title “Love is Forever” | Call Number “0004” | Id  4 |  |
| Valid book 5 | Author “Sian Whiley” | Title “Love is Forever Again” | Call Number “0005” | Id  5 |  |

### Post-conditions

* The user should have a confirmed loan for the scanned books and a loan slip should be printed.
* The system should have references to the confirmed loan which has references to the books and the member
* The books and the member should have a reference to the current loans
* The books status’s should be on loan.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, awaits scanning of book |  |
| 3 | Scan book (id = 1) | System retrieves and displays book details (Tim Smith – Wonderland) and creates a pending loan associated with it and the user. |  |
| 4 | User presses continue | System awaits next book to be scanned |  |
| 5 | Repeat steps 3 and 4 with book ids 2 through to 5. | As per steps 3 and 4 |  |
| 8 | NO ACTION | System completes and displays 5 pending loans for books 1, 2, 3, 4 and 5 as above. |  |
| 9 | Confirm loan list | System prints confirmed loan details for the 3 books and ends. |  |
| 10 |  |  |  |
| 11 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.3-1 | UAT | Passes |

## Script 1.4: Borrow multiple books, reject finalized list, cancel

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and scans multiple available books, but then rejects the completed list and cancels

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should be able to reject a completed list of pending loans
* A user should be able to cancel the borrow book use case

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A set of books should be available in the public area, and each should have a valid book barcode identifying it to the library system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Valid book 2 | Author  “Tim Smith” | Title  “Wonderland 2” | Call Number  “0002” | Id  2 |  |
| Valid book 3 | Author  “Tim Smith” | Title  “Wonderland 3” | Call Number  “0003” | Id  3 |  |

### Post-conditions

* The user should have no new loans, all pending loans should be cancelled
* All previously scanned books should still be available

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, awaits scanning of book |  |
| 3 | Scan book (id = 1) | System retrieves and displays book details (Tim Smith – Wonderland) and creates a pending loan associated with it and the user. |  |
| 4 | User presses continue | System awaits next book to be scanned |  |
| 5 | Repeat steps 3 and 4 with book ids 2 and 3. | As per steps 3 and 4 |  |
| 8 | The user presses complete | System completes and displays 3 pending loans for books 1, 2, and 3 as above. |  |
| 9 | User rejects pending list | System cancels the pending list, removes all pending loans and awaits scanning of next book. |  |
| 10 | User presses cancel | System cancels use case and ends. |  |
| 11 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.4-1 | UAT | Passes |

## Script 1.5: Attempt to borrow book, over fine limit

### Script Description

* This script covers the case where a user has a valid library membership and has fines over the fine limit and attempts to borrow a book.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should not be able to borrow books when they have fines over the fine limit (set at $10 currently).
* A user should be able to find out that they have fines owing and the amount owing.

### Pre-conditions

* A single user must exist in the system. They must be a member of the library with a valid membership card.
* The user should have a fine amount owing of $11 (FINE\_LIMIT + 1).

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |

### Post-conditions

* The user shall not have been able to create any new loans.
* The user will have been informed that they have existing fines and the amount.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, also displays information stating that the user cannot borrow and that they have $11 owing in fines. The user should not be able to take any actions except cancel. |  |
| 3 | User presses cancel | Borrow use case ends. |  |
| 4 |  |  |  |
| 5 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.5-1 | UAT | Passes |

## Script 1.6: Attempt to borrow book, at loan limit

### Script Description

* This script covers the case where a user has a valid library membership and has loans current amount to the limit of loans allowed and attempts to borrow a book.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should not be able to borrow books when they already have taken the maximum number of loans allowed (currently set at 5).
* A user should be able to find out that they have loans that are current and the details of them.

### Pre-conditions

* A single user must exist in the system. They must be a member of the library with a valid membership card.
* At least 5 books should exist in the system,
* The user must have taken out 5 loans on 5 books and have committed these loans in the system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Valid book 2 | Author  “Tim Smith” | Title  “Wonderland 2” | Call Number  “0002” | Id  2 |  |
| Valid book 3 | Author  “Tim Smith” | Title  “Wonderland 3” | Call Number  “0003” | Id  3 |  |
| Valid book 4 | Author “Sian Whiley” | Title “Love is Forever” | Call Number “0004” | Id  4 |  |
| Valid book 5 | Author “Sian Whiley” | Title “Love is Forever Again” | Call Number “0005” | Id  5 |  |
| Loans create | Loans must be created for user ‘1’ for the above books |  |  |  |  |

### Post-conditions

* The user shall not have been able to create any new loans.
* The user will have been informed that they have existing loans and the loan details.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, also displays information stating that the user cannot borrow and that they have 5 current loans and the details. The user should not be able to take any actions except cancel. |  |
| 3 | User presses cancel | Borrow use case ends. |  |
| 4 |  |  |  |
| 5 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.6-1 | UAT | Passes |

## Script 1.7: Attempt to borrow book, has overdue loans

### Script Description

* This script covers the case where a user has a valid library membership and has overdue loans and attempts to borrow a book.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should not be able to borrow books when they have overdue loans.
* A user should be able to find out that they have loans overdue and the details.

### Pre-conditions

* A single user must exist in the system. They must be a member of the library with a valid membership card.
* At least one book must exist in the system.
* The user must have at least one overdue loan.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Loan created | An overdue loan must exist for user 1 for book 1 |  |  |  |  |

### Post-conditions

* The user shall not have been able to create any new loans.
* The user will have been informed that they have existing fines and the amount.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, also displays information stating that the user cannot borrow and that they have an overdue loan and the details. The user should not be able to take any actions except cancel. |  |
| 3 | User presses cancel | Borrow use case ends. |  |
| 4 |  |  |  |
| 5 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.7-1 | UAT | Passes |

## Script 1.8: Borrow multiple books, cancel during scans

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and scans multiple available books, but then cancels

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should be able to cancel the borrow book use case during scanning process

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A set of books should be available in the public area, and each should have a valid book barcode identifying it to the library system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Valid book 2 | Author  “Tim Smith” | Title  “Wonderland 2” | Call Number  “0002” | Id  2 |  |
| Valid book 3 | Author  “Tim Smith” | Title  “Wonderland 3” | Call Number  “0003” | Id  3 |  |

### Post-conditions

* The user should have no new loans, all pending loans should be cancelled
* All previously scanned books should still be available

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, awaits scanning of book |  |
| 3 | Scan book (id = 1) | System retrieves and displays book details (Tim Smith – Wonderland) and creates a pending loan associated with it and the user. |  |
| 4 | User presses continue | System awaits next book to be scanned |  |
| 5 | Repeat steps 3 and 4 with book ids 2 and 3. | As per steps 3 and 4 |  |
| 6 | User presses cancel | System cancels use case and ends. No loans are created and all books still available. |  |
| 7 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.8-1 | UAT | Passes |

## Script 1.9 User scans card, has existing loans, borrowing allowed, cancels

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and has existing loans, but then cancels

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should be able to scan their card and see their existing loans
* A user should be able to cancel the borrow book use case during scanning process

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A set of books should be available in the public area, and each should have a valid book barcode identifying it to the library system.
* The user must have at least one existing loan.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Valid book 2 | Author  “Tim Smith” | Title  “Wonderland 2” | Call Number  “0002” | Id  2 |  |
| Valid book 3 | Author  “Tim Smith” | Title  “Wonderland 3” | Call Number  “0003” | Id  3 |  |
| Loans created | At least one loan should exist for user 1. |  |  |  |  |

### Post-conditions

* The user should have no new loans, all pending loans should be cancelled
* All scanned books should still be available
* The users existing loans should still exist.

Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, shows the details of the users existing loans, awaits scanning of book |  |
| 3 | User presses cancel | System cancels use case and ends. No loans are created and all books still available. |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.9-1 | UAT | Passes |

## Script 1.10: Borrow multiple books, reject finalized list, borrow other books, complete

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and scans multiple available books, but then rejects the completed list. The user then scans some other books and completes and confirms the new scans.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should be able to reject a completed list of pending loans
* A user should be able to create a new pending list after rejecting a previous one and then confirm the new list.

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A set of books should be available in the public area, and each should have a valid book barcode identifying it to the library system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| Valid book 1 | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |
| Valid book 2 | Author  “Tim Smith” | Title  “Wonderland 2” | Call Number  “0002” | Id  2 |  |
| Valid book 3 | Author  “Tim Smith” | Title  “Wonderland 3” | Call Number  “0003” | Id  3 |  |

### Post-conditions

* New loans shall have been created for the confirmed pending list but not the initial list.
* The loans should have references to the related book and the member.
* The relevant book and the member should have a reference to each relevant loan

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, awaits scanning of book |  |
| 3 | Scan book (id = 1) | System retrieves and displays book details (Tim Smith – Wonderland) and creates a pending loan associated with it and the user. |  |
| 4 | User presses continue | System awaits next book to be scanned |  |
| 5 | Repeat steps 3 and 4 with book ids 2 and 3. | As per steps 3 and 4 |  |
| 8 | The user presses complete | System completes and displays 3 pending loans for books 1, 2, and 3 as above. |  |
| 9 | User rejects pending list | System cancels the pending list, removes all pending loans and awaits scanning of next book. |  |
| 10 | User scans book ‘2’ | System creates pending loan for book ‘2’ and displays in pending list. |  |
| 11 | The user presses complete | System completes and displays 1 pending loan for book 2 only. |  |
| 12 | User presses confirm | System prints confirmed list for loan of book 2. Use case ends. |  |
| 13 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.10-1 | UAT | Passes |

## Script 1.11: Scan card, member not found

### Script Description

* This script covers the case where a user has an invalid library membership card and the member ID is not found.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user with an invalid membership card should not be able to borrow books.

### Pre-conditions

* There are no specific preconditions for this test.

### Required Data

No data is required.

### Post-conditions

* The user shall not have been able to create any new loans.
* The user will have been informed that the member id was not found.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System searches and finds no user. System displays message stating user id (given user id) was not found. |  |
| 3 | User presses cancel | Borrow use case ends. |  |
| 4 |  |  |  |
| 5 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.11-1 | UAT | Passes |

## Script 1.12: User attempts to scan the same book twice

### Script Description

* This script covers the case where a user has a valid library membership and has no borrowing restrictions and scans an available book twice.

### Testing Requirements

This test script covers the following specific testing requirements:

* A user should not be able to scan the same book twice and create two new pending loans for the same book.
* A user should receive an error if they scan the same book more than once in one pending list.

### Pre-conditions

* A single user must exist in the system with no borrowing restrictions. They must be a member of the library with a valid membership card.
* A single book should be available in the public area, and have a valid book barcode identifying it to the library system.

### Required Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| A valid user | First Name “Sam” | Last Name “Stow” | Contact Phone 03 5444 4444 | Email  sam@mail.com | Id  1 |
| A valid book | Author  “Tim Smith” | Title  “Wonderland” | Call Number  “0001” | Id  1 |  |

### Post-conditions

* The user should have only one pending loan for the book.

### Script Steps

| **Step #** | **Test Action** | **Expected Results** | **Pass/ Fail** |
| --- | --- | --- | --- |
| 1 | Start system | System initializes and appears, awaiting member card scan |  |
| 2 | Scan card (id = 1) | System retrieves and displays “Sam Stow” member details, awaits scanning of book |  |
| 3 | Scan book (id = 1) | System retrieves and displays book details (Tim Smith – Wonderland) and creates a pending loan associated with it and the user. |  |
| 4 | User presses continue | System awaits scanning of next book |  |
| 5 | Scan book (id = 1) | System displays error that the book can not be scanned. No new pending loan is created. |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |

### Test Execution

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date/Time | Tester | Test ID | Test Phase | Status |
| 24/08/2014 | Sam Stow | SS1.12-1 | UAT | Passes |