**Scripts testing the following test cases:**

1. **Borrows available book with no restrictions – success: member 0, book 14**
2. **Borrows available book with partial fine restrictions – success: member 4, book 14**
3. **Borrows available book with partial loan restrictions – success: member 1, book 14**
4. **Borrows (any) book with loan restrictions – failure: member 3**
5. **Borrows (any) book with fine restrictions – failure: member 2**
6. **Borrows loaned book with no restrictions – failure: member 0, book 2**
7. **Borrows loaned book with partial restrictions (loans) – failure: member 1, book 2**
8. **Borrows loaned book with partial restrictions (fines) – failure: member 4, book 2**
9. **Borrows loaned book with restrictions (fines) – failure: member 2**
   1. **Same result as #5 (scan book panel will be disabled, so the book status does not matter)**
10. **Borrows loaned book with restrictions (loans) – failure: member 3**
    1. **Same result as #4 (scan book panel will be disabled, so the book status does not matter)**
11. **Unrestricted borrower cancels loan before committing – failure**
12. **Unrestricted borrower cancels loan after scanning membership card - failure**

| **Test Case Name** | | **Borrows available book with no restrictions - success** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Use Case Tested:** | | Borrow Book | | | | | |
| **Test Description:** | | Navigate through the UI and borrow a book | | | | | |
| **Pre-conditions:** | | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | | * When borrower repeats this procedure up to Step 2, the loan that appeared in the Confirming panel appears under existing loans (confirmed by steps 6-7) | | |
| **Notes:** | |  | | | | | |
| **Result (Pass/Fail/Warning/Incomplete)** | | **Pass** | | | | | |
| **TEST STEP** | | | | **EXPECTED TEST RESULTS** | | P | F |
| 1. | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | |  |  |
| 2. | Enter member id (0) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel enabled * Main panel changes to ‘Scan Book’ state * Member details (0) displayed * Nothing displayed in Restricted | | y |  |
| 3. | Enter book id (14) and click Scan Book | | | * Book information appears under Book * Loan with borrower (0) and book (14) appears in pending loans | | Y |  |
| 4. | Click Complete | | | * Main display changes to ‘Confirming’ state * Same loan appears in display (as pending before) | | Y |  |
| 5. | Click Confirm | | | * Main display changes to ‘Created’ state * All other panels disabled | | Y |  |
| 6. | Repeat Step 1 | | | * Same as Step 1 | | Y |  |
| 7. | Repeat Step 2 | | | * Same as Step 2 but with the loan just created appearing under ‘existing loans’ | | y |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| Member | 0 |  |  |  |  |
| Book | 14 |  |  |  |  |
|  |  |  |  |  |  |

| **Test Case Name** | | **Borrows available book with partial fine restrictions - success** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Use Case Tested:** | | Borrow Book | | | | | |
| **Test Description:** | | Navigate through the UI and borrow a book | | | | | |
| **Pre-conditions:** | | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | | * When borrower repeats this procedure up to Step 2, the loan that appeared in the Confirming panel appears under existing loans (confirmed by steps 6-7) | | |
| **Notes:** | |  | | | | | |
| **Result (Pass/Fail/Warning/Incomplete)** | | **Pass** | | | | | |
|  | **TEST STEP** | | | **EXPECTED TEST RESULTS** | | P | F |
|  | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | | Y |  |
| 2. | Enter member id (4) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel enabled * Main panel changes to ‘Scan Book’ state * Member details (4) displayed * Fines (less than maximum fine) displayed in Restricted section * No loans displayed in existing loans section | | Y |  |
| 3. | Enter book id (14) and click Scan Book | | | * Book appears under Book * Loan with borrower (4) and book (14) appears in pending loans | | Y |  |
| 4. | Click Complete | | | * Main display changes to ‘Confirming’ state * Same loan appears in display (as pending before) | | Y |  |
| 5. | Click Confirm | | | * Main display changes to ‘Created’ state * Loan displayed in Printer | | Y |  |
| 6. | Repeat Step 1 | | | * Same as Step 1 | | Y |  |
| 7. | Repeat Step 2 | | | * Same as Step 2 except the same loan (as appeared in the Printer) appears in the pending loan list. | | Y |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| Member | 4 |  |  |  |  |
| Book | 14 |  |  |  |  |
|  |  |  |  |  |  |

| **Test Case Name** | **Borrows available book with partial loan restrictions - success** | | |
| --- | --- | --- | --- |
| **Use Case Tested:** | Borrow Book | | |
| **Test Description:** | Navigate through the UI and borrow a book | | |
| **Pre-conditions:** | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | * When borrower repeats this procedure up to Step 2, the loan that appeared in the Confirming panel appears under existing loans (confirmed by steps 6-7) |
| **Notes:** |  | | |
| **Result (Pass/Fail/Warning/Incomplete)** | **Pass** | | |

|  | **TEST STEP** | | | **EXPECTED TEST RESULTS** | | | | P | F | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | | | |  |  | |
| 2. | Enter member id (1) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel enabled * Main panel changes to ‘Scan Book’ state * Member details (1) displayed * No fines displayed in Restricted section * Overdue loans displayed in Restricted section * Loans displayed in existing loans section | | | |  |  | |
| 3. | Enter book id (14) and click Scan Book | | | * Book appears under Book * Loan with borrower (1) and book (14) appears in pending loans | | | |  |  | |
| 4. | Click Complete | | | * Main display changes to ‘Confirming’ state * Same loan appears in display (as pending before) | | | |  |  | |
| 5. | Click Confirm | | | * Main display changes to ‘Created’ state * Loan displayed in Printer | | | |  |  | |
| 6. | Repeat Step 1 | | | * Same as Step 1 | | | |  |  | |
| 7. | Repeat Step 2 | | | * Same as Step 2 but with the loan (from the Printer) appearing in the Existing Loans section. | | | |  |  | |
| **Test Data Table** | | | | | | | | | |
|  | | **1** | **2** | | **3** | **4** | **5** | | |
| Member | | 1 |  | |  |  |  | | |
| Book | | 14 |  | |  |  |  | | |
|  | |  |  | |  |  |  | | |

| **Test Case Name** | **Borrows (any) book with loan restrictions** | | |
| --- | --- | --- | --- |
| **Use Case Tested:** | Borrow Book | | |
| **Test Description:** | Navigate through the UI and attempt to borrow a book | | |
| **Pre-conditions:** | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | * When borrower repeats this procedure up to Step 2, the same loans that he saw the first time will still be there (no more, no less). Confirmed in steps 4-5. |
| **Notes:** |  | | |
| **Result (Pass/Fail/Warning/Incomplete)** | **Pass** | | |

|  | **TEST STEP** | | | **EXPECTED TEST RESULTS** | | | | P | F | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | | | |  |  | |
| 2. | Enter member id (3) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel disabled * Main display changes to ‘Restricted’ state (visually identical to ‘Scanning’ state) * Error message at the bottom of the main panel displays saying member 3 cannot borrow at this time * Member details (3) displayed in member details section * No fines displayed in Restricted section * Loans displayed in existing loans section | | | |  |  | |
| 3. | Click Cancel | | | * Main display changes to ‘Created’ state | | | |  |  | |
| 4. | Repeat Step 1 | | | * Same as Step 1 | | | |  |  | |
| 5. | Repeat Step 2 | | | * Same as Step 2 | | | |  |  | |
| **Test Data Table** | | | | | | | | | |
|  | | **1** | **2** | | **3** | **4** | **5** | | |
| Member | | 3 |  | |  |  |  | | |
|  | |  |  | |  |  |  | | |
|  | |  |  | |  |  |  | | |

| **Test Case Name** | **Borrows (any) book with fine restrictions** | | |
| --- | --- | --- | --- |
| **Use Case Tested:** | Borrow Book | | |
| **Test Description:** | Navigate through the UI and attempt to borrow a book | | |
| **Pre-conditions:** | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | * When borrower repeats this procedure up to Step 2, the same loans that he saw the first time will still be there (no more, no less). Confirmed in steps 4-5. |
| **Notes:** |  | | |
| **Result (Pass/Fail/Warning/Incomplete)** | **Pass** | | |

|  | **TEST STEP** | | | **EXPECTED TEST RESULTS** | | | | P | F | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | | | |  |  | |
| 2. | Enter member id (2) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel disabled * Main display changes to ‘Restricted’ state (visually identical to ‘Scanning’ state) * Error message at the bottom of the main panel displays saying member 2 cannot borrow at this time * Member details (2) displayed in member details section * Message, “Borrower has exceeded fine limit. Amount owing: (maximum fine)” displayed in Restricted section * Loans displayed in existing loans section | | | |  |  | |
| 3. | Click Cancel | | | * Main display changes to ‘Created’ state | | | |  |  | |
| 4. | Repeat Step 1 | | | * Same as Step 1 | | | |  |  | |
| 5. | Repeat Step 2 | | | * Same as Step 2 | | | |  |  | |
| **Test Data Table** | | | | | | | | | |
|  | | **1** | **2** | | **3** | **4** | **5** | | |
| Member | | 2 |  | |  |  |  | | |
|  | |  |  | |  |  |  | | |
|  | |  |  | |  |  |  | | |

| **Test Case Name** | **Borrows loaned book with no restrictions - failure** | | |
| --- | --- | --- | --- |
| **Use Case Tested:** | Borrow Book | | |
| **Test Description:** | Navigate through the UI and attempt to borrow a book | | |
| **Pre-conditions:** | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | * When borrower repeats this procedure up to Step 2, the same loans that he saw the first time will still be there (no more, no less). Confirmed in steps 5-6. |
| **Notes:** |  | | |
| **Result (Pass/Fail/Warning/Incomplete)** | **Pass** | | |

|  | **TEST STEP** | | | **EXPECTED TEST RESULTS** | | | | P | F | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | | | |  |  | |
| 2. | Enter member id (0) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel enabled * Main panel changes to ‘Scan Book’ state * Member details (0) displayed * Nothing displayed in Restricted | | | |  |  | |
| 3. | Enter book id (2) into Scan Book panel | | | * Error message at bottom of main display: ‘Book 2 is on loan’ | | | |  |  | |
| 4. | Click Cancel | | | * Main display changes to ‘created’ state | | | |  |  | |
| 5. | Repeat Step 1 | | | * Same as Step 1 | | | |  |  | |
| 6. | Repeat Step 2 | | | * Same as Step 2 | | | |  |  | |
| **Test Data Table** | | | | | | | | | |
|  | | **1** | **2** | | **3** | **4** | **5** | | |
| Member | | 0 |  | |  |  |  | | |
| Book | | 2 |  | |  |  |  | | |
|  | |  |  | |  |  |  | | |

| **Test Case Name** | **Borrows loaned book with partial loan restrictions - failure** | | |
| --- | --- | --- | --- |
| **Use Case Tested:** | Borrow Book | | |
| **Test Description:** | Navigate through the UI and borrow a book | | |
| **Pre-conditions:** | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | * When borrower repeats this procedure up to Step 2, the same loans are shown (no more no less). Confirmed by steps 5-6. |
| **Notes:** |  | | |
| **Result (Pass/Fail/Warning/Incomplete)** | **Pass** | | |

|  | **TEST STEP** | | | **EXPECTED TEST RESULTS** | | | | P | F | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | | | |  |  | |
| 2. | Enter member id (1) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel enabled * Main panel changes to ‘Scan Book’ state * Member details (1) displayed * No fines displayed in Restricted section * Overdue loans displayed in Restricted section * Loans displayed in existing loans section | | | |  |  | |
| 3. | Enter book id (2) into Scan Book panel | | | * Error message at bottom of main display: ‘Book 2 is on loan’ | | | |  |  | |
| 4. | Click Cancel | | | * Main display changes to ‘created’ state | | | |  |  | |
| 5. | Repeat Step 1 | | | * Same as Step 1 | | | |  |  | |
| 6. | Repeat Step 2 | | | * Same as Step 2 | | | |  |  | |
| **Test Data Table** | | | | | | | | | |
|  | | **1** | **2** | | **3** | **4** | **5** | | |
| Member | | 1 |  | |  |  |  | | |
| Book | | 2 |  | |  |  |  | | |
|  | |  |  | |  |  |  | | |

| **Test Case Name** | | **Borrows loaned book with partial fine restrictions - success** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Use Case Tested:** | | Borrow Book | | | | | |
| **Test Description:** | | Navigate through the UI and borrow a book | | | | | |
| **Pre-conditions:** | | * Test data created * Program just opened (hasn’t had a member selected yet) * At ‘Created’ main display panel | **Postconditions:** | | * When borrower repeats this procedure up to Step 2, the loan that appeared in the Confirming panel appears under existing loans (confirmed by steps 5-6). | | |
| **Notes:** | |  | | | | | |
| **Result (Pass/Fail/Warning/Incomplete)** | | **Pass** | | | | | |
|  | **TEST STEP** | | | **EXPECTED TEST RESULTS** | | P | F |
| 1. | Click Borrow Books | | | * Swipe Card panel enabled * Other non-main panels disabled * Main panel changes to ‘Swipe Card’ state | | Y |  |
| 2. | Enter member id (4) and click Swipe Card | | | * Swipe Card panel disabled * Scan Book panel enabled * Main panel changes to ‘Scan Book’ state * Member details (4) displayed * Fines (less than maximum fine) displayed in Restricted section * No loans displayed in existing loans section | | Y |  |
| 3. | Enter book id (2) into Scan Book panel | | | * Error message at bottom of main display: ‘Book 2 is on loan’ | | Y |  |
| 4. | Click Cancel | | | * Main display changes to ‘created’ state | | Y |  |
| 5. | Repeat Step 1 | | | * Same as Step 1 | | Y |  |
| 6. | Repeat Step 2 | | | * Same as Step 2 | | Y |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| Member | 4 |  |  |  |  |
| Book | 2 |  |  |  |  |
|  |  |  |  |  |  |