| **Test Name** | | Swipe Borrower Card |
| --- | --- | --- |
| **Use Case Tested:** | | Swipe Borrower Card Use Case |
| **Test Description:** | | Before a member can borrow a book, they must scan their card (member id), to prove they are a member and allowed to borrow books. |
| **Pre-conditions** | | * cardReader visible and enabled * BorrowBookCTL added as listener to cardReader * memberDAO exists * BorrowBookCTL state == INITIALIZED |
| **Post-conditions** | | **(member exists and not restricted)**  Scanning panel of BorrowBookUI displayed  Complete, Cancel buttons enabled  cardReader is disabled  scanner is enabled  borrower details displayed  existing loans displayed  scan count initialized as number of  existing loans  existing fine message displayed if relevant  BorrowBookCTL state == ***SCANNING\_BOOKS***  **(member exists and is restricted)**  Restricted panel of BorrowBookUI displayed  Cancel button enabled  cardReader is disabled  scanner is disabled  borrower details displayed  existing loans displayed  existing fine message displayed if relevant  overdue message displayed if relevant  atLoanLimit message displayed if relevant  borrowing restricted error message displayed  BorrowBookCTL state == ***BORROWING\_RESTRICTED***  **(member does not exists)**  Main menu is displayed  Member not found message displayed.  Refer to the “Test Data Table”. |
| **Notes:** | Intent: Identify borrower to system  Signature: cardSwiped(borrowerId) | |
| **Result (Pass/Fail/Warning/Incomplete)** |  | |

|  | **TEST STEP** | **EXPECTED TEST RESULTS** | P | F |
| --- | --- | --- | --- | --- |
| Test 1 – Borrower not restricted | | | | |
|  | Click ‘Borrow Books’. | * The BorrowBookUI is displayed. * The SwipeCard panel of BorrowBokUI displayed. * The Cancel button enabled. * The cardRead is enabled. * The scanner is enabled. |  |  |
|  | Enter member Id ‘1’, and press ‘Swipe Card’. | * Scanning panel of BorrowBookUI displayed * Complete and Cancel buttons enabled * The cardReader is disabled * The scanner is enabled * The borrower details displayed |  |  |
| Test 2 – Borrower is restricted (has outstanding fines) | | | | |
|  | Click ‘Borrow Books’. | * The BorrowBookUI is displayed. * The SwipeCard panel of BorrowBokUI displayed. * The Cancel button enabled. * The cardRead is enabled. * The scanner is enabled. |  |  |
|  | Enter member Id ‘2’, and press ‘Swipe Card’. | * Restricted panel of BorrowBookUI displayed * The Cancel button enabled * The cardReader is disabled * The scanner is disabled * The borrower details displayed * The existing loans displayed * The overdue message displayed if relevant * The borrowing restricted error message displayed |  |  |
|  | Click ‘Cancel’. | * Main menu is displayed |  |  |
| Test 2 – Borrower is restricted (has overdue loans) | | | | |
|  | Click ‘Borrow Books’. | * The BorrowBookUI is displayed. * The SwipeCard panel of BorrowBokUI displayed. * The Cancel button enabled. * The cardRead is enabled. * The scanner is enabled. |  |  |
|  | Enter member Id ‘3’, and press ‘Swipe Card’. | * Restricted panel of BorrowBookUI displayed * The Cancel button enabled * The cardReader is disabled * The scanner is disabled * The borrower details displayed * The borrowing restricted error message displayed |  |  |
|  | Click ‘Cancel’. | * Main menu is displayed |  |  |
| Test 2 – Borrower is restricted (over loan limit) | | | | |
|  | Click ‘Borrow Books’. | * The BorrowBookUI is displayed. * The SwipeCard panel of BorrowBokUI displayed. * The Cancel button enabled. * The cardRead is enabled. * The scanner is enabled. |  |  |
|  | Enter member Id ‘4’, and press ‘Swipe Card’. | * Restricted panel of BorrowBookUI displayed * The Cancel button enabled * The cardReader is disabled * The scanner is disabled * The borrower details displayed * The atLoanLimit message displayed if relevant * The borrowing restricted error message displayed |  |  |
|  | Click ‘Cancel’. | * Main menu is displayed |  |  |
| Test 3 – Borrower does not exist | | | | |
|  | Click ‘Borrow Books’. | * The BorrowBookUI is displayed. * The SwipeCard panel of BorrowBokUI displayed. * The Cancel button enabled. * The cardRead is enabled. * The scanner is enabled. |  |  |
|  | Enter member Id ‘45’, and press ‘Swipe Card’. | * Member not found message displayed. * The BorrowBookUI is displayed. * The SwipeCard panel of BorrowBokUI displayed. * The Cancel button enabled. * The cardRead is disabled. * The scanner is disabled. |  |  |

|  |  |
| --- | --- |
| **Test Data Table** | |
| **Test 1** | |
| Member exists and not restricted | * Scanning panel of BorrowBookUI displayed * Complete, Cancel buttons enabled * cardReader is disabled * scanner is enabled * borrower details displayed * existing loans displayed * scan count initialized as number of * existing loans * existing fine message displayed if relevant * BorrowBookCTL state == ***SCANNING\_BOOKS*** |
| **Test 2** | |
| Member exists and is restricted | * Restricted panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is disabled * borrower details displayed * existing loans displayed * existing fine message displayed if relevant * overdue message displayed if relevant * atLoanLimit message displayed if relevant * borrowing restricted error message displayed * BorrowBookCTL state == ***BORROWING\_RESTRICTED*** |
| **Test 3** | |
| Member does not exist | * Main menu is displayed * Member not found message displayed. |