| **Test Name** | | Scan Book |
| --- | --- | --- |
| **Use Case Tested:** | | Scan Book Use Case |
| **Test Description:** | | To borrow a book, the member must scan the book id in-order for the book to be associated with a loan. |
| **Pre-conditions** | | * BorrowBookCTL class exists * Scanner exists * BorrowBookCTL added as listener to scanner * BorrowBookCTL state = SCANNING\_BOOKS |
| **Post-conditions** | | **(book not found)**  BorrowBookUI is displayed  Scanning panel of BorrowBookUI displayed  Cancel button enabled  cardReader is disabled  scanner is enabled  book not found error message displayed  BorrowBookCTL state == ***SCANNING\_BOOKS***  **(book not available)**  BorrowBookUI is displayed  Scanning panel of BorrowBookUI displayed  Cancel button enabled  cardReader is disabled  scanner is enabled  book not available error message displayed  BorrowBookCTL state == ***SCANNING\_BOOKS***  **(book already scanned)**  BorrowBookUI is displayed  Scanning panel of BorrowBookUI displayed  Cancel button enabled  cardReader is disabled  scanner is enabled  book already scanned error message  displayed  BorrowBookCTL state == ***SCANNING\_BOOKS***    **(scan count < loan limit)**  BorrowBookUI is displayed  Scanning panel of BorrowBookUI displayed  Cancel button enabled  cardReader is disabled  scanner is enabled  scanCount incremented by 1  scanned books details displayed  new (pending) loan created  (pending) loan added to pending loan list  Current pending loan list displayed  BorrowBookCTL state == ***SCANNING\_BOOKS***  **(scan count == loan limit)**  BorrowBookUI is displayed  ConfirmingLoans panel of BorrowBookUI  displayed  final pending loan list displayed  Cancel button enabled  Reject button enabled  cardReader is disabled  scanner is disabled  scanCount incremented by 1  BorrowBookCTL state == ***CONFIRMING\_LOANS***  Refer to the “Test Data Table”. |
| **Notes:** | Intent: Add book to list of intended/pending loans  Signature: bookScanned(barcode) | |
| **Result (Pass/Fail/Warning/Incomplete)** |  | |

|  | **TEST STEP** | **EXPECTED TEST RESULTS** | P | F |
| --- | --- | --- | --- | --- |
| Test 1 – Book not found | | | | |
|  | 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 |  |  |
|  | Enter book Id ‘25’, and press ‘Scan Book Barcode’. | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * book not found error message displayed |  |  |
| Test 2 – Book not available | | | | |
|  | 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 |  |  |
|  | Enter book Id ‘1’, and press ‘Scan Book Barcode’. | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * book not available error message displayed |  |  |
| Test 3 – Book already scanned. | | | | |
|  | 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 |  |  |
|  | Enter book Id ‘10’, and press ‘Scan Book Barcode’. | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * book already scanned error message displayed |  |  |
| Test 4 – Scan count < 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 ‘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 |  |  |
|  | Enter book Id ‘10’, and press ‘Scan Book Barcode’.  Enter book Id ‘11’, and press ‘Scan Book Barcode’.  Enter book Id ‘12’, and press ‘Scan Book Barcode’. | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * scanned books details displayed * new (pending) loan created * (pending) loan added to pending loan list * Current pending loan list displayed |  |  |
| Test 5 – Scan count == 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 ‘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 |  |  |
|  | Enter book Id ‘10’, and press ‘Scan Book Barcode’.  Enter book Id ‘11’, and press ‘Scan Book Barcode’.  Enter book Id ‘12’, and press ‘Scan Book Barcode’.  Enter book Id ‘13’, and press ‘Scan Book Barcode’.  Enter book Id ‘14’, and press ‘Scan Book Barcode’. | * BorrowBookUI is displayed * ConfirmingLoans panel of BorrowBookUI * displayed * final pending loan list displayed * Cancel button enabled * Reject button enabled * cardReader is disabled * scanner is disabled |  |  |

|  |  |  |
| --- | --- | --- |
| **Test Data Table** | | |
| **Test 1** | |
| Book not found. | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * book not found error message displayed * BorrowBookCTL state == ***SCANNING\_BOOKS*** |
| **Test 2** | |
| Book not available. | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * book not available error message displayed * BorrowBookCTL state == ***SCANNING\_BOOKS*** |
| **Test 3** | |
| Book already scanned. | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * book already scanned error message displayed * BorrowBookCTL state == ***SCANNING\_BOOKS*** |
| **Test 4** | |
| Scan count < loan limit | * BorrowBookUI is displayed * Scanning panel of BorrowBookUI displayed * Cancel button enabled * cardReader is disabled * scanner is enabled * scanCount incremented by 1 * scanned books details displayed * new (pending) loan created * (pending) loan added to pending loan list * Current pending loan list displayed * BorrowBookCTL state == ***SCANNING\_BOOKS*** |
| **Test 5** | |
| Scan count == loan limit | * BorrowBookUI is displayed * ConfirmingLoans panel of BorrowBookUI * displayed * final pending loan list displayed * Cancel button enabled * Reject button enabled * cardReader is disabled * scanner is disabled * scanCount incremented by 1 * BorrowBookCTL state == ***CONFIRMING\_LOANS*** |