**Test data report**

1. **Borrow book method**

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| **Input Data** | **Reason** | **Expected Output** | **Actual Output** | **Comments** |
| BorrowTestCase1 (path: assignment-3/src/library/entities/BorrowTestCase1.java) | | | | |
| Create object Book a; Member b; Date c; Date d; LoanA function of (a, b, c, d); | Assign the book "a" is going to be borrowed by the member "b" (Wing Tsoi). | IllegalArgumentException | True | The output result is as expected as the assert statement is true. |
| BorrowTestCase2 (path: assignment-3/src/library/entities/BorrowTestCase2.java) | | | | |
| Create object Book a; Member b; Date c; Date d; LoanA function of (a, b, c, d); | To test the book has been currently borrowed by a borrower. | RuntimeException | RuntimeException | The output result is as expected. |
| BorrowTestCase3 (path: assignment-3/src/library/entities/BorrowTestCase3.java) | | | | |
| Create null object Book a; Member b; Date c; Date d; LoanA function of (a, b, c, d); | To test null input for the borrow method. | IllegalArgumentException | IllegalArgumentException | The output result is as expected. |

1. **Add book method**

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| **Input Data** | **Reason** | **Expected Output** | **Actual Output** | **Comments** |
| AddBookTestCase1 (path: assignment-3/src/library/daos/AddBookTestCase1.java) | | | | |
| Add a new book, of which the  Book author is "Wing", the title is "BookTitle", and the call number is "1". | To test the value of "Author" variable is passed into the collection of "Books". | "Wing" | True ("Wing") | The output result is as expected. |
| AddBookTestCase2 (path: assignment-3/src/library/daos/AddBookTestCase2.java) | | | | |
| Add a new book, of which the  Book author is "Wing", the title is "BookTitle", and the call number is "1". | To test the value of "Title" variable is passed into the collection of "Books". | "BookTitle" | True ("BookTitle") | The output result is as expected. |
| AddBookTestCase3 (path: assignment-3/src/library/daos/AddBookTestCase3.java) | | | | |
| Add a new book, of which the  Book author is "Wing", the title is "BookTitle", and the call number is "1". | To test the value of "callNumber" variable is passed into the collection of "Books". | “1” | True ("1") | The output result is as expected. |

1. **Card swiped method**

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| **Input Data** | **Reason** | **Expected Output** | **Actual Output** | **Comments** |
| CardSwipedTestCase1 (path: assignment-3/src/library/CardSwipedTestCase1.java) | | | | |
| Create new BorrowUC\_CTL object: bookScan;  Initiate a testing memberID from member: "Wing"; | For data required of cardSwiped method. | Pass | Pass | The result returns "INITIALIZED" state as expected. |
| CardSwipedTestCase2 (path: assignment-3/src/library/CardSwipedTestCase2.java) | | | | |
| Create new BorrowUC\_CTL object: bookScan; Initiate a new bookID and a new memberID. | For data required of cardSwiped method. If EBorrowState is equals to SCANNING.BOOKS, bookScanned method runs smoothly. | Pass | Pass | The result returns "SCANNING\_BOOKS" state as expected. |
| CardSwipedTestCase3 (path: assignment-3/src/library/CardSwipedTestCase3.java) | | | | |
| Create new BorrowUC\_CTL object: bookScan; Initiate a new bookID and a new memberID. Add a fine limit to the member. | To test the condition of fine limit. | Pass | Pass | The result returns "BORROWING\_RESTRICTED" state as expected. |

1. **MainPanel Class**

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| **Input Data** | **Reason** | **Expected Output** | **Actual Output** | **Comments** |
| MainPanelTest (path: assignment-3/src/library/panels/MainPanelTest.java) | | | | |
| Create a new BorrowUC\_CTL object: bookScan; Initiate a testing memberID from member: "Wing"; Create a new book and a new loan object. | For data required of cardSwiped method and bookScanned method. | Pass | Pass | The result returns "CONFIRMING\_LOANS" state as expected. |
| MainPanelTest2 (path: assignment-3/src/library/panels/MainPanelTest2.java) | | | | |
| Create a new BorrowUC\_CTL object: bookScan; Initiate a testing memberID from member: "Wing"; Create a new book and a new loan object. | For data required and executing the cancel method. | Pass | **Pass** | The result returns "CANCELLED" state as expected. |