

Library Management System

| Test Cases | Test Case ID/Operator Value | Trials | Test Steps | Expected Result | Actual Results | Status (Pass/Fail) | Comments |
|----------------------------|--|--------|--|---|------------------|--------------------|---|
| 1. Adding an Author | Add an author with a first name, last name, and nickname | 1 | User entered first name, last name, and/or nickname. | Author is successfully added to the system. | Same as expected | Pass | Result as Expected |
| | Add an author with missing fields (first name, and nickname) | 2 | User entered the last name and/or nickname but omitted the first name. | Author is not successfully added to the system. | Same as expected | Fail | System rejected the addition of author. |
| | Add an author with missing fields (last name, and nickname) | 3 | User entered the last name and/or nickname but omitted the last name. | Author is not successfully added to the system. | Same as expected | Fail | System rejected the addition of author |
| | Add an author with a duplicate nickname | 4 | User entered an author with a duplicate nickname. | Author is not successfully added to the system. | Same as expected | Fail | System rejected the addition of author |
| | Add an author to a book that does not exist. | 5 | User entered an author to a book that does not exist. | Author is not successfully added to the system. | Same as expected | Fail | System rejected the addition of author |
| 2. Adding a Book | 2. Add a book with an ISBN, genre, availability, and title | 1 | User entered ISBN, genre, availability, and title | Book is successfully added to the system. | Same as expected | Pass | Result as Expected |
| | Add a book. | 2 | User entered ISBN, genre but | Book is not | Same as expected | Fail | System rejected the |

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| | with missing fields (ISBN, genre, availability, and title) | | omitted the title and availability | successfully added to the system. | | | addition of Book. |
| | Add a book. with missing fields (ISBN, genre, availability, and title) | 3 | User entered title and availability but omitted the ISBN and genre | Book is not successfully added to the system. | Same as expected | Fail | System rejected the addition of Book. |
| | Add a book with an invalid ISBN format | 4 | User entered book with an invalid ISBN format | Book is not successfully added to the system | Same as expected | Fail | System rejected the addition of Book. |
| 3. Registering a Patron (Student, Faculty, General) | Add a Patron with an patron name, email, phone number, and student ID or Department. | 1 | User entered patron name, email, phone number, and student ID or department | Patron is successfully added to the system | Same as expected | Pass | Result as Expected |
| | Add a Patron with missing fields (patron name, email, phone number, and student ID or Department) | 2 | User entered the patron's name, email, phone number, and omitted the student Id | Patron is not successfully added to the system | Same as expected | Fail | System rejected registering the Patron. |
| | Add a Patron with missing fields (patron name, email, phone number, and student ID or Department) | 3 | User entered the Student Id and omitted the patron's name, email, phone number. | Patron is not successfully added to the system | Same as expected | Fail | System rejected registering the Patron. |

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| 4. Checking Out a Book | Get the Patron Id and ISBN of the book to check out | 1 | User entered patron ID and ISBN of the book to check out. | Book successfully checked out. | Same as expected | Pass | Result as Expected |
| | Get the Patron Id and ISBN of the book to check out. | 2 | User entered patron ID and non-existing ISBN of the book to check out. | Book is not found to checked out. | Same as expected | Fail | Error! Book is not found to checked out. |
| | Get the Patron Id and ISBN of the book to check out. | 3 | User entered ISBN patron ID and non-existing of the book to check out. | Book is not found to checked out. | Same as expected | Fail | Error! Book is not found to checked out |
| 5. Returning Out a Book | Get the ISBN of the book to check in | 1 | User entered ISBN of the book to check in | Book is successfully returned. | Same as expected | Pass | Result as Expected |
| | Get the ISBN of the book to check in | 2 | User entered invalid ISBN of the book to check in | Book is not successfully returned. | Same as expected | Fail | Error! Book is not found. |
| | Get the ISBN of the book to check out. | 3 | Check if the book is marked as available again. | Book is available. | Same as expected | Pass | Result as Expected |

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| 6. Printing All Books/Patrons /Borrowing history /updating | Update book details with invalid data (empty title, ISBN etc.) | 1. | User entered book details with invalid data | Book is not Updated | Same as expected | Fail | Error! Updating the Book. |
| | Choose the option to print all books. | 2 | User chosen the option to print all books. | Verify whether the books are printed | Same as expected | Pass | Result as Expected |
| | Choose the option to print all patrons registered | 3 | User chosen the option to print all Patrons registered | Verify whether the patrons printed are registered | Same as expected | Pass | Result as Expected |
| | Check borrowing history. | 4 | User entered the patron ID to view the borrowing history. | Verify that the borrowing history of the patron is displayed. | Same as expected | Pass | Result as Expected |
| 6. Transaction | Choose the option to print all library transactions. | 1 | User chosen the option to print all Transaction. | Verify that the list of all transactions in the library is displayed. | Same as expected | Pass | Result as Expected |
| 7. | | | | | | | |

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