

Module 6 | Software Implementation Phase 1 - Logic and Functionality Screenshots:

- Ask the user for a file name, and receive it from the user. Open the file supplied by the user, and add each book to the LMS database.
- Print the database to the screen, with a short message indicating that printing is taking place.

```
Enter the file name to load books: src/books.txt

Library Management System Menu:
1. Display all books
2. Remove a book by barcode
3. Remove a book by title
4. Check out a book
5. Check in a book
6. Exit
Choose an option (1-6): 1
Printing current library collection...
Title: To Kill a Mockingbird, Author: Harper Lee, Barcode: 111, Genre: Suspense, Status: checked in, Due Date: null
Title: 1984, Author: George Orwell, Barcode: 222, Genre: Fiction, Status: checked in, Due Date: null
Title: The Great Gatsby, Author: F. Scott Fitzgerald, Barcode: 333, Genre: Romance, Status: checked in, Due Date: null
Title: The Hound of Rowan, Author: Henry Neff, Barcode: 444, Genre: Fantasy, Status: checked in, Due Date: null
Title: Paper Towns, Author: John Green, Barcode: 555, Genre: Young Adult, Status: checked in, Due Date: null
Title: Gives Light, Author: Rose Christo, Barcode: 666, Genre: Young Adult, Status: checked in, Due Date: null
Title: The Compound, Author: S.A. Bodeen, Barcode: 777, Genre: Fiction, Status: checked in, Due Date: null
Title: Fahrenheit 451, Author: Ray Bradbury, Barcode: 888, Genre: Fiction, Status: checked in, Due Date: null
Title: The Dinner, Author: Herman Koch, Barcode: 999, Genre: Suspense, Status: checked in, Due Date: null
Title: Artemis Fowl, Author: Eoin Colfer, Barcode: 101010, Genre: Fantasy, Status: checked in, Due Date: null
```

- Ask the user for a barcode number to remove. Receive the barcode, remove the corresponding book from the database, print a confirmation message that the book was deleted, and re-print the contents of the database to the screen.

```
Library Management System Menu:
1. Display all books
2. Remove a book by barcode
3. Remove a book by title
4. Check out a book
5. Check in a book
6. Exit
Choose an option (1-6): 2
Enter the barcode number of the book to remove: 101010
Book removed successfully.
Title: To Kill a Mockingbird, Author: Harper Lee, Barcode: 111, Genre: Suspense, Status: checked in, Due Date: null
Title: 1984, Author: George Orwell, Barcode: 222, Genre: Fiction, Status: checked in, Due Date: null
Title: The Great Gatsby, Author: F. Scott Fitzgerald, Barcode: 333, Genre: Romance, Status: checked in, Due Date: null
Title: The Hound of Rowan, Author: Henry Neff, Barcode: 444, Genre: Fantasy, Status: checked in, Due Date: null
Title: Paper Towns, Author: John Green, Barcode: 555, Genre: Young Adult, Status: checked in, Due Date: null
Title: Gives Light, Author: Rose Christo, Barcode: 666, Genre: Young Adult, Status: checked in, Due Date: null
Title: The Compound, Author: S.A. Bodeen, Barcode: 777, Genre: Fiction, Status: checked in, Due Date: null
Title: Fahrenheit 451, Author: Ray Bradbury, Barcode: 888, Genre: Fiction, Status: checked in, Due Date: null
Title: The Dinner, Author: Herman Koch, Barcode: 999, Genre: Suspense, Status: checked in, Due Date: null
```

(Successful example ^)

```
Library Management System Menu:
1. Display all books
2. Remove a book by barcode
3. Remove a book by title
4. Check out a book
5. Check in a book
6. Exit
Choose an option (1-6): 2
Enter the barcode number of the book to remove: 123
Book not found.
```

(Unsuccessful example ^)

- Ask the user for a title number to remove. Receive the title, remove the corresponding book from the database, print a confirmation message that the book was deleted, and re-print the contents of the database to the screen.

```
Library Management System Menu:
1. Display all books
2. Remove a book by barcode
3. Remove a book by title
4. Check out a book
5. Check in a book
6. Exit
Choose an option (1-6): 3
Enter the title of the book to remove: Paper Towns
Book removed successfully.
Title: To Kill a Mockingbird, Author: Harper Lee, Barcode: 111, Genre: Suspense, Status: checked in, Due Date: null
Title: 1984, Author: George Orwell, Barcode: 222, Genre: Fiction, Status: checked in, Due Date: null
Title: The Great Gatsby, Author: F. Scott Fitzgerald, Barcode: 333, Genre: Romance, Status: checked in, Due Date: null
Title: The Hound of Rowan, Author: Henry Neff, Barcode: 444, Genre: Fantasy, Status: checked in, Due Date: null
Title: Gives Light, Author: Rose Christo, Barcode: 666, Genre: Young Adult, Status: checked in, Due Date: null
Title: The Compound, Author: S.A. Bodeen, Barcode: 777, Genre: Fiction, Status: checked in, Due Date: null
Title: Fahrenheit 451, Author: Ray Bradbury, Barcode: 888, Genre: Fiction, Status: checked in, Due Date: null
Title: The Dinner, Author: Herman Koch, Barcode: 999, Genre: Suspense, Status: checked in, Due Date: null
```

- Ask the user for a title to check out. Check out the book, print a confirmation message, and re-print the contents of the database to the screen.

```

Library Management System Menu:
1. Display all books
2. Remove a book by barcode
3. Remove a book by title
4. Check out a book
5. Check in a book
6. Exit
Choose an option (1-6): 4
Enter the title of the book to check out: 1984
Book checked out successfully.
Title: To Kill a Mockingbird, Author: Harper Lee, Barcode: 111, Genre: Suspense, Status: checked in, Due Date: null
Title: 1984, Author: George Orwell, Barcode: 222, Genre: Fiction, Status: checked out, Due Date: 2024-07-09
Title: The Great Gatsby, Author: F. Scott Fitzgerald, Barcode: 333, Genre: Romance, Status: checked in, Due Date: null
Title: The Hound of Rowan, Author: Henry Neff, Barcode: 444, Genre: Fantasy, Status: checked in, Due Date: null
Title: Gives Light, Author: Rose Christo, Barcode: 666, Genre: Young Adult, Status: checked in, Due Date: null
Title: The Compound, Author: S.A. Bodeen, Barcode: 777, Genre: Fiction, Status: checked in, Due Date: null
Title: Fahrenheit 451, Author: Ray Bradbury, Barcode: 888, Genre: Fiction, Status: checked in, Due Date: null
Title: The Dinner, Author: Herman Koch, Barcode: 999, Genre: Suspense, Status: checked in, Due Date: null

```

- Ask the user for a title to check in. Check in the book, print a confirmation message, and re-print the contents of the database to the screen.

```

Library Management System Menu:
1. Display all books
2. Remove a book by barcode
3. Remove a book by title
4. Check out a book
5. Check in a book
6. Exit
Choose an option (1-6): 5
Enter the title of the book to check in: 1984
Book checked in successfully.
Title: To Kill a Mockingbird, Author: Harper Lee, Barcode: 111, Genre: Suspense, Status: checked in, Due Date: null
Title: 1984, Author: George Orwell, Barcode: 222, Genre: Fiction, Status: checked in, Due Date: null
Title: The Great Gatsby, Author: F. Scott Fitzgerald, Barcode: 333, Genre: Romance, Status: checked in, Due Date: null
Title: The Hound of Rowan, Author: Henry Neff, Barcode: 444, Genre: Fantasy, Status: checked in, Due Date: null
Title: Gives Light, Author: Rose Christo, Barcode: 666, Genre: Young Adult, Status: checked in, Due Date: null
Title: The Compound, Author: S.A. Bodeen, Barcode: 777, Genre: Fiction, Status: checked in, Due Date: null
Title: Fahrenheit 451, Author: Ray Bradbury, Barcode: 888, Genre: Fiction, Status: checked in, Due Date: null
Title: The Dinner, Author: Herman Koch, Barcode: 999, Genre: Suspense, Status: checked in, Due Date: null

```

- Exiting the program:

```

Library Management System Menu:
1. Display all books
2. Remove a book by barcode
3. Remove a book by title
4. Check out a book
5. Check in a book
6. Exit
Choose an option (1-6): 6
Exiting the Library Management System. Goodbye!

```

Link to Repository:

https://github.com/HFugulin/MeloFugulin_Hanna_LMS