E:\library.java

```
 1  import java.util.*;
 2
 3  public class Main {
 4      public static void main(String[] args) {
 5
 6          // Create a new Library object
 7          Library library = new Library();
 8
 9          // Repeat the main menu until the user quits the program
10          do {
11              // Display the main menu
12              library.displayMainMenu();
13
14              // Get the user's menu choice
15              Scanner sc = new Scanner(System.in);
16              System.out.println("Enter your choice: ");
17              int choice = sc.nextInt();
18
19              // Add a book to the library
20              if (choice == 1) {
21                  // Create a new Book object
22                  Book book = new Book();
23                  // Display the book menu and get the book's details from the user
24                  book.bookMenu();
25                  // Add the book to the library
26                  library.addBook(book);
27
28              // Find a book in the library
29              } else if (choice == 2) {
30                  // Ask the user for the serial number of the book they want to find
31                  System.out.println("Enter the books serial Number that you want to find : ");
32                  int userChoice = sc.nextInt();
33                  // Search for the book in the library and get its index
34                  int indexUser = library.findBook(userChoice);
35                  // Print the details of the book with the given serial number
36                  System.out.println("The book with the given Serial Number is: " + "\r\n" +
    library.getBook(library.findBook(userChoice)));
37
38              // Update a book in the library
39              } else if (choice == 3) {
40                  // Ask the user for the serial number of the book they want to update
41                  System.out.println("Enter the books serial Number that you want to Update : ");
42                  int userChoice = sc.nextInt();
43                  // Get the Book object from the library using its serial number
44                  Book book = library.getBook(library.findBook(userChoice));
45                  // Display the update menu for the book and get the user's update choice
46                  book.userUpdateDisplay();
47                  System.out.println("What do you want to update. ");
48                  int updateUserChoice = sc.nextInt();
49                  // Update the book's serial number
50                  if (updateUserChoice == 1) {
51                      System.out.println("Enter the new serial number for the book:  ");
52                      int newsNo = sc.nextInt();
53                      book.setsNo(newsNo);
```

```java
                    // Update the book's name
                } else if (updateUserChoice == 2) {
                    System.out.println("Enter the New Book Name: ");
                    String newBookName = sc.next();
                    book.setBookName(newBookName);
                    // Update the book's author
                } else if (updateUserChoice == 3) {
                    System.out.println("Enter the new Author Name: ");
                    String newAuthorName = sc.next();
                    book.setAuthorName(newAuthorName);
                }
                // Print the updated book details
                System.out.println("The updated Book is : " + library.getBook(userChoice));

                // Remove a book from the library
            } else if (choice == 4) {
                // Ask the user for the serial number of the book they want to delete
                System.out.println("Enter the books serial Number that you want to Delete : ");
                int userChoice = sc.nextInt();
                // Get the Book object from the library using its serial number
                Book book = library.getBook(library.findBook(userChoice));
                // Remove the book from the library
                library.removeBook(book);

                // List all books in the library
            } else if(choice == 5) {
                library.getAllBook();
            }
        } while (true); // Keep repeating the main menu until the program
                        // is terminated by the user. This is achieved by
                        // using a while loop with a condition of true.
                        // The loop will keep running until the user
                        // terminates the program by manually ending it or
                        // entering a specific input to indicate program termination.
    }
}
```