

Lesson-11-Hash Table

Problem-3

Task1: Create a Library class that uses a instance field HashMap to store books collection, where the key is the ISBN(String) and the value is the Book object.

Method Requirements inside Library class can use the HashMap collection to perform the user interaction.

- **addBook(String ISBN, String title, String author):** This method should add a new book to the library book Hash collection. Display a message if ISBN exists in the library otherwise added into the library and display the confirmation.
- **borrowBook(String ISBN):**This method should only allow borrowing if the book is not already borrowed from the books collection. Check if the ISBN exists, and the book is not borrowed set the borrowed status true, otherwise handle display message to the user appropriately. Display the confirmation for the book issued.
- **returnBook(String ISBN):**This method should only allow returning if the book is currently borrowed books HashMap. Check if the ISBN exists, and the book is borrowed set the borrowed status false, otherwise handle display message to the user appropriately. Display the confirmation for the book returned.
- **isBookBorrowed(String ISBN):** This method should check if a book is currently borrowed.
- **getBookDetails(String ISBN):** This method should return the details of a book by ISBN.
- **listAllBooks():** Iterates through the books HashMap and prints the details of each book.
- **listBorrowedBooks():** Iterates through the books HashMap and prints the details of each borrowed book.

Task 2: Write a Test class with a main method to make use of Library functionalities.