

## Question 1: Library Class with Book Collection

Task: Design a class `Library` that contains a collection of books. Each book should have properties like title, author, and ISBN. Implement methods to add a book, remove a book, and display all books in the library.

Requirements:

- Create a class `Book` with properties for title, author, and ISBN.
- Create a class `Library` that maintains a collection of `Book` objects.
- Implement the following methods in the `Library` class:
  - `addBook(Book book)`: Adds a book to the library.
  - `removeBook(String isbn)`: Removes a book from the library using its ISBN.
  - `displayBooks()`: Displays all books in the library.
- Write a program that demonstrates the functionality of the `Library` class.

Sample Output:

Books in the library:

Title: The Great Gatsby, Author: F. Scott Fitzgerald, ISBN: 9780743273565

Title: 1984, Author: George Orwell, ISBN: 9780451524935

Removing book with ISBN: 9780451524935

Book removed successfully.

Books in the library:

Title: The Great Gatsby, Author: F. Scott Fitzgerald, ISBN: 9780743273565

## Question 2: Reverse a String Using a Stack

Task: Create a program that uses a stack to reverse a string.

Requirements:

- The program should prompt the user to enter a string.
- Implement a method that uses a stack to reverse the string.
- Display the reversed string.

Sample Input and Output:

Input:

Enter a string: Hello, World!

Output:

The reversed string is: !dlroW ,olleH

## Submission Guidelines

- Implement both questions in a single Java file or separate files as you see fit.
- Ensure your code is well-commented and follows good coding practices.
- Test your program with different inputs to verify correctness.
- Submit your Java code Screenshots.