EXPERIMENT - 5

AIM: Design a class that performs string operations (Equal, Reverse the string, change case).

THEORY:

CODE:

```
import java.util.Scanner;

class StringOperations {
    public boolean isEqual(String str1, String str2) {  1 usage
        return str1.equals(str2);
    }

    public String reverseString(String str) {  1 usage
        return new StringBuilder(str).reverse().toString();
    }
    public String changeCase(String str) {  1 usage
        StringBuilder result = new StringBuilder();
        for (char c : str.toCharArray()) {
            if (Character.isUpperCase(c)) {
                result.append(Character.toLowerCase(c));
            } else {
                result.append(Character.toUpperCase(c));
            }
        }
        return result.toString();
    }
```

```
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        StringOperations obj = new StringOperations();

        System.out.print("Enter first string: ");
        String str1 = scanner.nextLine();

        System.out.print("Enter second string: ");
        String str2 = scanner.nextLine();

        System.out.println("\nAre strings equal? " + obj.isEqual(str1, str2));
        System.out.println("Reversed First String: " + obj.reverseString(str1));
        System.out.println("Case Changed First String: " + obj.changeCase(str1));

        scanner.close();
    }
}
```

OUTPUT:

```
Enter first string: Hello
Enter second string: World

Are strings equal? false
Reversed First String: olleH
Case Changed First String: hELLO
```

LEARNING OUTCOME:

EXPERIMENT - 6

AIM: Demonstrate the use of the final keyword with data members, functions, and classes.

THEORY:

CODE:

```
final class FinalDemo {  2 usages
    final int value = 10;  1 usage
    final void show() {  1 usage
        System.out.println("Final method cannot be overridden.");
    }
}
public class FinalKeywordDemo {
    public static void main(String[] args) {
        FinalDemo obj = new FinalDemo();
        System.out.println("Final variable value: " + obj.value);

        obj.show();
    }
}
```

OUTPUT:

```
Final variable value: 10
Final method cannot be overridden.
```

LEARNING OUTCOME: