

### 1.What is a mutable String in Java explain with example.

**Ans:** In a mutable string, we can change the value of the string and JVM doesn't create a new object. In a mutable string, we can change the value of the string in the same object. To create a mutable string in java, Java has two classes StringBuffer and StringBuilder where the String class is used for the immutable string.

**Ex:**

```
StringBuilder brand1 = new StringBuilder("Avijit");
    System.out.println(brand1);

    brand1.append(" Patra");
    System.out.println(brand1);
OUTPUT:
Avijit
Avijit Patra
```

### 2. WAP to reverse a String.

**Ans:**

```
public class test2 {
    public static void main(String[] args) {
        String name = "PWSKILLS";

        System.out.print("String is: ");
        for (int i = 0; i < name.length(); i++) {
            System.out.print(name.charAt(i) + " ");
        }
        System.out.println();
        System.out.print("Reverse String: ");
        for (int i = name.length() - 1; i >= 0; i--) {
            System.out.print(name.charAt(i) + " ");
        }
    }
}
```

### 3. WAP to reverse a sentence while preserving the position.

**Ans:**

```

public class test2 {
    public static void main(String[] args) {
        String name = "Think Twice";
        String reverse = " ";

        String arr[] = name.split(" ");

        for (String str : arr) {
            for (int i = str.length() - 1; i >= 0; i--) {
                reverse = reverse + str.charAt(i);
            }
            reverse = reverse + " ";
        }
        System.out.println(reverse);
    }
}

```

OUTPUT:

kniHT eciwT

#### 4. WAP to sort a String Alphabetically.

Ans:

```

import java.util.Arrays;

public class test2 {
    public static void main(String[] args) {
        String str = "azmfdhdcqbq";

        char[] charArray = str.toCharArray();
        Arrays.sort(charArray);
        String sortedString = new String(charArray);

        System.out.println("Original String: " + str);
        System.out.println("Alphabetically Sorted String: " + sortedString);
    }
}

```

OUTPUT:

Original String: azmfdhdcqbq

Alphabetically Sorted String: abcddfhmqtz

