String in java
Assignment

Assignment Solution

Q1. What is Mutable String in Java Explain with an Example
Ans.
Mutable means changing over time or that can be changed. 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**

Example

```
public class MutableString
{
   public static void main (String[] args)
   {
        StringBuffer str1 = new StringBuffer("JavaGoal");
        StringBuilder str2 = new StringBuilder("Learning");

        System.out.println("Value of str1 before change :" +
str1);
        System.out.println("Value of str2 before change :" +
str2);

        str1.append(".com");
        str2.append(" website");

        System.out.println("Value of str1 after change :" +
str1);
        System.out.println("Value of str2 after change :" +
str2);
   }
}
```

Q2.WAP to reverse a String
Input = "PWSKILLS"
Output = "SLLIKSPW"

```
public class StringFormatter {
public static String reverseString(String str){
   char ch[]=str.toCharArray();
   String rev="";
   for(int i=ch.length-1;i>=0;i--){
      rev+=ch[i];
   }
   return rev;
}
}
public class Test {
public static void main(String[] args) {
   System.out.println(StringFormatter.reverseString("PWSKILLS"));

   }
}
```

Q3. WAP to reverse a sentence while preserving the position
Input = “Think Twice”
Output = “ Knight eciwT”

Ans

```
public class ReverseStringPreserve {
        static void reverses(String str)
    {

         char[] inputArray = str.toCharArray();
        char[] result = new char[inputArray.length];

                for (int i = 0; i < inputArray.length;
i++) {
            if (inputArray[i] == ' ') {
```

```
                result[i] = ' ';
            }
        }

             int j = result.length - 1;
        for (int i = 0; i < inputArray.length; i++) {

            if (inputArray[i] != ' ') {

                .
                if (result[j] == ' ') {
                    j--;
                }
                result[j] = inputArray[i];
                j--;
            }
        }
        System.out.println(String.valueOf(result));
    }


    public static void main(String[] args)
    {
        reverses("Think Twice");
    }
}
```

Q4. WAP to sort a String Alphabetically

Ans

```
class Alpha {
    public static void main(String[] args)
    {
        int n = 4;


        String names[]
            = { "Rahul", "Ajay", "Gourav", "Riya" };
        String temp;
```

```
        for (int i = 0; i < n; i++) {
            for (int j = i + 1; j < n; j++) {


                if (names[i].compareTo(names[j]) > 0) {

                    temp = names[i];
                    names[i] = names[j];
                    names[j] = temp;
                }
            }
        }


        System.out.println(
            "The names in alphabetical order are: ");
        for (int i = 0; i < n; i++) {
            System.out.println(names[i]);
        }
    }
}
```