Day 17 Assignment

1. What is Mutable String in Java Explain with an example
2. WAP to reverse a String
Input: "PWSKILLS"
Output: "SLLIKSPW"
3. WAP to reverse a sentence while preserving the position
Input: Think Twice
Output: "kniht eciwt"
4. WAP to sort a String Alphabetically

1. What is Mutable String in Java Explain with an example

Ans: mutable strings are **those strings whose content can be changed without creating a new object**. StringBuffer and StringBuilder are mutable versions of String in java.

```
public class Main
// Example of mutable string
{
        public static void main(String[] args)
        {
                StringBuilder brand1=new StringBuilder("pwskill");
                System.out.println(brand);
                brand1.append("Bengaluru");
                System.out.println(brand1);
        }
}
```

2. WAP to reverse a String. Input: "PWSKILLS", Output: "SLLIKSPW"

Ans:
```
class Main
{
    public static void main (String[] args)
    {
        String str= "PWSKILLS", rev="";
        char ch;
      System.out.println("Input: "+str);
      for (int i=0; i<str.length(); i++)
      {
       ch= str.charAt(i);
       nstr= ch+rev;
      }
      System.out.println("Output: "+ rev);
    }
}
```

3. WAP to reverse a sentence while preserving the position. Input: Think Twice, Output: "kniht eciwt"

Ans:

```java
public class Main
{
    public static void main(String[] args)
    {
        String str1="Think Twice";
        String str2="";
        String sarr[]=str1.split(" ");
        for(String elem :sarr)
        {
            for(int i=elem.length()-1 ; i>=0;i--)
            {
                str2=str2+ elem.charAt(i);
            }
            str2=str2+" ";
        }
        System.out.println("Input: " + str1);
        System.out.println("Output: " +str2);
    }
}
```

4. WAP to sort a String Alphabetically

Ans:

```java
import java.util.Arrays;
public class Main
{
    public static String sortString(String inputString)
    {
        char tempArray[] = inputString.toCharArray();
        Arrays.sort(tempArray);
        return new String(tempArray);
    }
    public static void main(String[] args)
    {
        String inputString = "i am suraj";
        String outputString = sortString(inputString);
        System.out.println("Input String : " + inputString);
        System.out.println("Output String : "+ outputString);
    }
}
```