

PW SKILLS

JAVA With DSA & System Design

Assignment – Mutable Strings in Java (Part - 4)

Day - 17

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

Ans: In these types of String in which we create a String once and, on that String, if we try to perform any operation and if those changes get reflected in the same object, then such strings are called “Mutable String”.

Example: *StringBuffer, StringBuilder.*

2. WAP to reverse a String

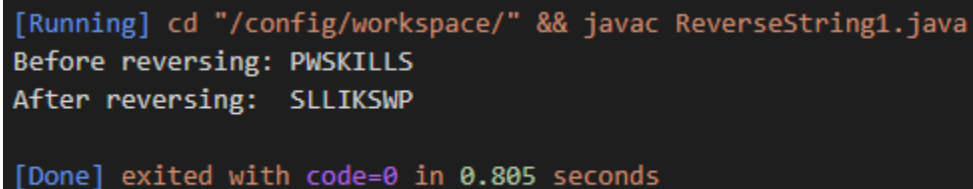
Input: “PWSKILLS

Output: “SLLIKSWP”

Ans: Program to print a reverse string:

```
class ReverseString1 {
    public static void main(String[] args) {
        String str1 = "PWSKILLS";
        String str2 = " ";
        for(int i= str1.length()-1; i>=0; i--)
        {
            str2 = str2 + str1.charAt(i);
        }
        System.out.println("Before reversing: "+str1);
        System.out.println("After reversing: "+str2);
    } }
```

Output:



```
[Running] cd "/config/workspace/" && javac ReverseString1.java
Before reversing: PWSKILLS
After reversing:  SLLIKSWP

[Done] exited with code=0 in 0.805 seconds
```

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

Input: Think Twice

Output: “ kniht eciwt”

Ans: Program to print a reverse of sentence while preserving the position.

```
class ReverseString3 {
    public static void main(String[] args) {
        String str1 = "Think Twice";
        String str2 = " ";
        str1=str1.toLowerCase();
        String arr[]= str1.split(" ");
        // reverse a string with the element at same position
        for (String elem : arr) {
            for(int i=elem.length()-1;i>=0;i--)
```

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```
        {
            str2 = str2 +elem.charAt(i);
        }
        str2 = str2+" ";
    }
    System.out.println("Before Reverse a string:" + str1);
    System.out.println("After Reverse a string:" + str2);
}
}
```

Output:

```
[Running] cd "/config/workspace/" && javac ReverseString3.java
Before Reverse a string:think twice
After Reverse a string: kniht eciwt

[Done] exited with code=0 in 0.835 seconds
```

4. WAP to sort a String Alphabetically.

Ans: Program to sort a String Alphabetically order:

```
import java.util.Arrays;
import java.util.Scanner;
public class SortStringInAlphabeticalOrder {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter your String: ");
        String str = sc.nextLine();
        str = str.replace(" ", "");
        str = str.toLowerCase();
        char arrstr[] = str.toCharArray();
        Arrays.sort(arrstr);
        System.out.println("Sorted string:");
        System.out.println(arrstr);
    }
}
```

Output:

```
abc@2e1a9213ef77:~/workspace$ /usr/bin/env /usr/lib/jvm/java-11-
Enter your String:
acbdfeghijklmnopqrstvuxwyz
Sorted string:
abcdefghijklmnopqrstuvwxy
abc@2e1a9213ef77:~/workspace$
```