String Assignment 3

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

Answer: Mutable String: Once if we create a String, on that String if we try to perform any operation and if those operations can be reflect in same object then String is called immutable string.

Example:

StringBuffer S = “Sachin”;

S.append(“Tendulkar”);

System.out.print(S); //SachinTendulkar

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

Answer:

class Q1 {

    public static void main(String[] args) {

        StringBuffer s = new StringBuffer("PWSKILLS");

        s.reverse();

        System.out.println(s); //SLLIKSWP

    }

}

3. WAP to reverse a sentence while preserving the position Input: Think Twice

Output: "kniht eciwt"

Answer:

import java.util.Scanner;

public class test3 {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter a sentence: ");

        String sentence = scanner.nextLine();

        String reversedSentence = reverseSentence(sentence);

        System.out.println("Reversed sentence: " + reversedSentence);

    }

    public static String reverseSentence(String sentence) {

        String[] words = sentence.split("\\s+");

        StringBuilder reversedSentence = new StringBuilder();

        for (int i = words.length - 1; i >= 0; i--) {

            reversedSentence.append(reverseWord(words[i])).append(" ");

        }

        return reversedSentence.toString().trim();

    }

    public static String reverseWord(String word) {

        StringBuilder reversedWord = new StringBuilder();

        for (int i = word.length() - 1; i >= 0; i--) {

            reversedWord.append(word.charAt(i));

        }

        return reversedWord.toString();

    }

}

//WAP to reverse a sentence while preserving the position Input: Think Twice

//Output: "kniht eciwt"

4. WAP to sort a String Alphabetically.

Answer:

import java.util.Arrays;

import java.util.Scanner;

public class test4 {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter a string: ");

        String input = scanner.nextLine();

        String sortedString = sortStringAlphabetically(input);

        System.out.println("Sorted string: " + sortedString);

    }

    public static String sortStringAlphabetically(String input) {

        char[] chars = input.toCharArray();

        Arrays.sort(chars);

        return new String(chars);

    }

}