**STRINGS IN JAVA ASSIGNMENT**

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

**Ans:** Once if we create a String, 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. Write a program to reverse a sentence while preserving the position**

**INPUT:** “PWSKILLS”

**OUTPUT:** “ SLLIKSWP”

**Ans:** public class HelloWorld {

    public static void main(String[] args) {

        String sentence = "PWSKILLS";

        char[] sentenceArray = sentence.toCharArray();

        int start = 0;

        int end = sentenceArray.length - 1;

        while (start < end) {

            char temp = sentenceArray[start];

            sentenceArray[start] = sentenceArray[end];

            sentenceArray[end] = temp;

            start++;

            end--;

        }

        String reversedSentence = new String(sentenceArray);

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

    }

}

**3. Write a program to reverse a sentence while preserving the position**

**INPUT:** Think Twice

**OUTPUT: “**kniht eciwt”

**Ans:** String sentence = "Think Twice";

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

StringBuilder sb = new StringBuilder();

for (String word : words) {

char[] wordArray = word.toCharArray();

int start = 0;

int end = wordArray.length - 1;

while (start < end) {

char temp = wordArray[start];

wordArray[start] = wordArray[end];

wordArray[end] = temp;

start++;

end--;

}

sb.append(new String(wordArray)).append(" ");

}

String reversedSentence = sb.toString();

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

**4. Write a program to sort a String Alphabetically.**

**Ans:** public class HelloWorld{

    public static void main(String[] args) {

        String sentence = "yash";

        char[] sentenceArray = sentence.toCharArray();

        for (int i = 0; i < sentenceArray.length; i++) {

            for (int j = i + 1; j < sentenceArray.length; j++) {

                if (sentenceArray[i] > sentenceArray[j]) {

                    char temp = sentenceArray[i];

                    sentenceArray[i] = sentenceArray[j];

                    sentenceArray[j] = temp;

                }

            }

        }

        String sortedSentence = new String(sentenceArray);

        System.out.println("Sorted Sentence: " + sortedSentence);

    }

}