Assignment Question 3

Q1) What is Mutable string in java ? give an example.
Ans : In Java, strings are immutable, meaning their values cannot be changed once they are created. However, Java provides classes like StringBuilder and StringBuffer to work with mutable sequences of characters.
eg:

StringBuilder sb = new StringBuilder("Hello");

sb.append(", world!");

System.out.println(sb); // Output: Hello, world!

Q2) WAP to reverse a sentence
    INPUT:"PWSKILLS"
    OUTPUT:"SLLIKSWP"
Ans : public class ReverseString {
   public static void main(String[] args) {
     // Input sentence
     String input = "PWSKILLS";

     // Reverse the sentence
     String reversed = new StringBuilder(input).reverse().toString();

     // Output the reversed sentence
     System.out.println("Reversed sentence: " + reversed);
   }
}

Q3) WAP to reverse a sentence while preserving the position
    INPUT:"Think Twice"

OUTPUT:"kniht eciwt"

Ans:public class ReverseWords {
   public static void main(String[] args) {
      String input = "Think Twice";
      String[] words = input.split(" ");
      StringBuilder reversedSentence = new StringBuilder();
      for (String word : words) {
         String reversedWord = new
StringBuilder(word).reverse().toString();
         reversedSentence.append(reversedWord).append(" ");
      }
      String output = reversedSentence.toString().trim();
      System.out.println("Reversed sentence: " + output);
   }
}

Q4) WAP to sort a String Alphabetically.

Ans:import java.util.Arrays;

public class SortStringAlphabetically {
   public static void main(String[] args) {
      String input = "PWSKILLS";
      char[] characters = input.toCharArray();
      Arrays.sort(characters);
      String sortedString = new String(characters);
      System.out.println("Sorted string: " + sortedString);
   }
}