PROGRAM: ISC PRATICALS 2021(Question 2)

```java
import java.util.*;
public class StringTT
{
    public static void main(String args[])
    {
        Scanner br=new Scanner(System.in);
        System.out.println("Enter two sentences");
        String sentences = br.nextLine();

        StringTokenizer sentence = new StringTokenizer(sentences,".?!"); //Tokenizing the sentences.

        int count = sentence.countTokens(); //Counting the number of sentence.
        char ter_char = sentences.charAt(sentences.length()-1); //Extracting the terminating character.

        char ter_char1 = 0;
        for(int i=0;i<sentences.length();i++)
        {
            if(sentences.charAt(i) == '.' || sentences.charAt(i) == '?' || sentences.charAt(i) == '!')
            {
                ter_char1 = sentences.charAt(i);
                break;
            }
        }

        if(count == 2 && (ter_char == '.' || ter_char == '?' || ter_char == '!') && (ter_char1 == '.' ||
ter_char1 == '?' || ter_char1 == '!')) //Checking the validitity of the input sentences.
        {
            String sentence_one =  sentence.nextToken();//Splitting the sentences.
            String sentence_two = sentence.nextToken();

            System.out.println("\n"+sentence_one.trim()+ter_char1); // Printing the sentences.
            System.out.println(sentence_two.trim()+ter_char);

            StringTokenizer words_one  = new StringTokenizer(sentence_one); //Tokenizing the
sentence into words.
            StringTokenizer words_two  = new StringTokenizer(sentence_two);

            String array_one[] =  new String[words_one.countTokens() +  words_two.countTokens()]; //
Arrays to store the words of both sentences.
            String array_two[] =  new String[words_one.countTokens() +  words_two.countTokens()];

            int index_one = 0; //Storing the words into each array.
            while(words_one.hasMoreTokens())
            {
                array_one[index_one] = words_one.nextToken();
                array_two[index_one] = array_one[index_one];
                index_one++;
            }

            int index_two = index_one;
```

```java
        while(words_two.hasMoreTokens())
        {
           array_two[index_two] = words_two.nextToken();
           array_one[index_two] = array_two[index_two];
           index_two++;
        }

        boolean check = false;
        boolean pcheck = true;

        outer:
        for(int i=0;i<array_one.length;i++)//Finding out common words and printing them if their
frequency is > 1.
        {
           for(int i1 = 0;i1<i;i1++) //Removing repeated words.
           {
              if(array_one[i].equals(array_one[i1]))
                 continue outer;
           }

           int counter = 1;
           for(int j=i+1;j<array_two.length;j++) //Finding Frequency.
           {
              if(array_one[i].equals(array_two[j]))
              {
                 counter++;
                 check =true;

              }

              if(counter > 1 && pcheck)
              {
                 System.out.println("\nCommon Words \t\t\t Frequency");
                 pcheck = false;
              }

           }
           if(counter > 1) //If the word is has frequency > 1, checking whether the word exists in
both the sentence.
           {
              boolean words_sen1 = false;
              boolean words_sen2 = false;

              for(int i2 = 0 ; i<index_one; i2++)
              {
                 if(array_one[i].equals(array_one[i2]))
                 {
                    words_sen1 = true;
                    break;
                 }
              }
```

```
                for(int i2 = index_one ; i2<index_two; i2++)
                {
                   if(array_one[i].equals(array_two[i2]))
                   {
                      words_sen2 = true;
                      break;
                   }
                }
                if(words_sen1 && words_sen2) //If the words has frequency > 1 and is in both the
sentences printing it.
                   System.out.println(array_one[i]+"\t\t\t    "+counter);
             }
          }
          if(!check) //if there is no common words in the sentences.
          {
             System.out.println("No Common");
          }
       }
       else //If the input sentence is found to be invalid.
          System.out.println("INVALID SENTENCE");
   }
}
```

OUTPUT

Enter two sentences
IS IT RAINING? YOU MAY GET WET IT IS RAINING.

IS IT RAINING?
YOU MAY GET WET IT IS RAINING.

Common Words	Frequency
IS	2
IT	2
RAINING	2

Enter two sentences
INDIA IS MY MOTHERLAND AND I AM PROUD OF MY MOTHERLAND. ALL INDIANS
ARE MY BROTHERS AND SISTERS.

INDIA IS MY MOTHERLAND AND I AM PROUD OF MY MOTHERLAND.
ALL INDIANS ARE MY BROTHERS AND SISTERS.

Common Words	Frequency
MY	3
AND	2

Enter two sentences
THIS IS A TEST SENTENCE TO TEST THIS PROGRAM! ISN'T THIS A WORKING
WORKING PROGRAM.

THIS IS A TEST SENTENCE TO TEST THIS PROGRAM!

ISN'T THIS A WORKING WORKING PROGRAM.

Common Words	Frequency
THIS	3
A	2
PROGRAM	2

ISN'T THIS A WORKING WORKING PROGRAM.

Common Words	Frequency
THIS	3
A	2
PROGRAM	2