//StringTokenizer program to perform various actions on a paragraph. Aswin Asok

```
import java.util.*;
public class Tokenizer
{
   public static void main(String args[])
   {
      Scanner br = new Scanner(System.in);

      System.out.println("Enter a Paragraph");
      String input = br.nextLine();
      String palindrome_words = "  ";
      String upper_lower = "  ";

      StringTokenizer sentences = new StringTokenizer(input,".?!");//For extracting each sentence.

      System.out.println("\nNumber of sentences: "+sentences.countTokens());

      if(sentences.countTokens()>5)
         System.out.println("\nError Message: Number of sentences is higher than five !");

      while(sentences.hasMoreTokens())
      {
         String sentence = sentences.nextToken();
         StringTokenizer words = new StringTokenizer(sentence," ");//For extracting the words
         int count = 0;

         System.out.print("\nSentence : "+sentence);
         while(words.hasMoreTokens())
         {
            String word = words.nextToken();

            for(int i=0;i<word.length();i++)
            {
               char ch = Character.toUpperCase(word.charAt(i));
               if(ch=='A'||ch=='E'||ch=='I'||ch=='O'||ch=='U')
               {
                  count++;
               }
            }
         }
         System.out.println("\nNumber of vowels: "+count);
```

```
        StringTokenizer words2 = new StringTokenizer(sentence," ");//For extracting the words
        while(words2.hasMoreTokens())
        {
           String word = words2.nextToken();
           String rev = "";

           if(word.length()>1)
           {
              for(int i=word.length()-1; i>=0; i--)
              {
                 rev+=word.charAt(i);
              }

              if(Character.isUpperCase(word.charAt(0)) &&
Character.isLowerCase(word.charAt(word.length()-1)))
                 upper_lower = upper_lower+word+", ";

              if(rev.equalsIgnoreCase(word))
                 palindrome_words = palindrome_words+word+", ";
           }
        }

     }
     System.out.println("\nPalindrome Words:
"+palindrome_words.substring(0,palindrome_words.length()-2));
     System.out.println("Words starting with Uppercase and ending in lowercase:
"+upper_lower.substring(0,upper_lower.length()-2));
   }
}
```

OUTPUT

Enter a Paragraph
This is a Tokenizer program. My native language is Malayalam. I write code!Will you finish now?
Thank you! Good Luck!

Number of sentences: 6

Error Message: Number of sentences is higher than five !

Sentence : This is a Tokenizer program
Number of vowels: 9

Sentence : My native language is Malayalam

Number of vowels: 12

Sentence : I write code
Number of vowels: 5

Sentence : Will you finish now
Number of vowels: 6

Sentence : Thank you
Number of vowels: 3

Sentence : Good Luck
Number of vowels: 3

Palindrome Words: Malayalam
Words starting with Uppercase and ending in lowercase: This, Tokenizer, My, Malayalam, Will, Thank, Good, Luck