

28. In a class, an English teacher was teaching the vowels and consonants to the students. She says “Vowel sounds allow the air to flow freely, causing the chin to drop noticeably, whilst consonant sounds are produced by restricting the air flow”. As a class activity the students are asked to identify the vowels and consonants in the given word/sentence and count the number of elements in each. Write an algorithm to help the student to count the number of vowels and consonants in the given sentence.

```
%{  
  
#include <stdio.h>  
  
%}  
  
%%  
  
[aeiouAEIOU] { printf("Vowel: %s\n", yytext); }  
  
[bcdfghjklmnpqrstvwxyzBCDFGHJKLMNPQRSTUVWXYZ] { printf("Consonant: %s\n",  
yytext); }  
  
[ \t\n] ; // skip whitespaces  
  
%%  
  
int main() {  
  
    int vowelCount = 0;  
  
    int consonantCount = 0;  
  
    yylex();  
  
    while (yylex() != 0) {
```

```

        if (yytext[0] == 'V') {

            vowelCount++;

        } else if (yytext[0] == 'C') {

            consonantCount++;

        }

    }

}

printf("Number of Vowels: %d\n", vowelCount);

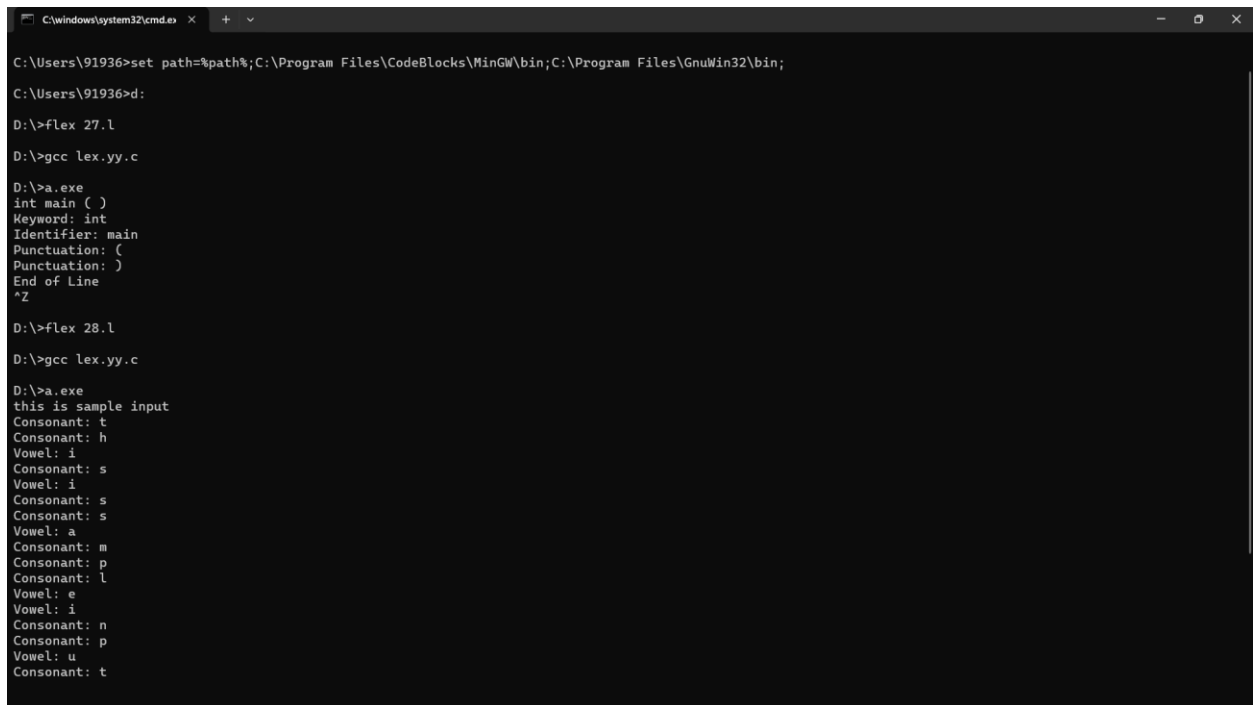
printf("Number of Consonants: %d\n", consonantCount);

return 0;

}

int yywrap() { return 1; }

```



```

C:\Users\91936>set path=%path%;C:\Program Files\CodeBlocks\MinGW\bin;C:\Program Files\GnuWin32\bin;
C:\Users\91936>d:
D:\>flex 27.l
D:\>gcc lex.yy.c
D:\>a.exe
int main ( )
Keyword: int
Identifier: main
Punctuation: (
Punctuation: )
End of Line
^Z
D:\>flex 28.l
D:\>gcc lex.yy.c
D:\>a.exe
this is sample input
Consonant: t
Consonant: h
Vowel: i
Consonant: s
Vowel: i
Consonant: s
Consonant: s
Vowel: a
Consonant: m
Consonant: p
Consonant: l
Vowel: e
Vowel: i
Consonant: n
Consonant: p
Vowel: u
Consonant: t

```

