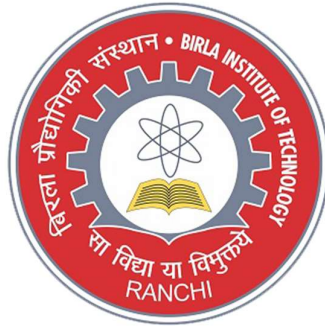# Birla Institute of Technology,Mesra, Patna Campus

CD-Assignment

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Sec-CSE 6th

#Assignment-8

20. Write a program in lex to count number of comments line from text file.

Code:-

```
%{
#include<stdio.h>
#include<stdlib.h>
int a=0,c=0,d,e=0;
%}
%%
"/*"  {if(e==0)e++;}
"*/"  {if(e==1)e=0;c++;}
"//".* {if(e==0)a++;}
.  {if(e==0)ECHO;}
%%
void main(int argc,char *argv[]){
    yyin=fopen("File2.txt","r");
    yylex();
    printf("single line %d \nmultiline %d \n",a,c);
    d=a+c;
    printf("total %d \n",d);
}
```

Output:-

```
File  Edit  View  Search  Terminal  Help
        gokusan:~/Documents/Sem VI/LABS/CD LAB$ lex Q20A8.l
        gokusan:~/Documents/Sem VI/LABS/CD LAB$ cc lex.yy.c -lfl
        gokusan:~/Documents/Sem VI/LABS/CD LAB$ ./a.out


single line 2
multiline 1
total 3
        gokusan:~/Documents/Sem VI/LABS/CD LAB$ 
```

21. Write a program in lex to count those words which will start from vowels.

Code:-

```
%{
#include<stdio.h>
int count = 0,l=0;
%}
%%
[aeiouAEIOU][A-Za-z]+                    { count++;   }
[A-Za-z(^aeiouAEIOU)][A-Za-z]+        {l++;}

%%

void main(int argc,char *argv[]){

        yyin=fopen(argv[1],"r");
    yylex();
    printf("Number of words starting with vowel text file is %d\
n", count);
}


int yywrap()
{
    return 1;
}
```

Output:-

```
File  Edit  View  Search  Terminal  Help
    andromeda:~/Documents/Sem VI/LABS/CD LAB$ lex Q2A8.l
    andromeda:~/Documents/Sem VI/LABS/CD LAB$ cc lex.yy.c -lfl
    andromeda:~/Documents/Sem VI/LABS/CD LAB$ ./a.out File.txt
            .
        .

Number of words starting with vowel text file is 13
    andromeda:~/Documents/Sem VI/LABS/CD LAB$ 
```

22. Write a program in lex to count numbers of operator in any text file.

Code:-

```
%{ #include<stdio.h>

int op = 0 ;
%}


%%

[+*-/<>=] {
op++;
}
(<=|>=|!=) {
op++;
}

.       ;
%%

void main(int argc,char *argv[]){

    yyin=fopen(argv[1],"r");
    yylex();
    printf("Number of operators in text file is %d\n", op);
}

int yywrap()
{
    return 1; }
```

Output:-

```
File  Edit  View  Search  Terminal  Help
       andromeda:~/Documents/Sem VI/LABS/CD LAB$ lex Q22A8.l
       andromeda:~/Documents/Sem VI/LABS/CD LAB$ cc lex.yy.c -lfl
       andromeda:~/Documents/Sem VI/LABS/CD LAB$ ./a.out File2.txt



Number of operators in text file is 8
       andromeda:~/Documents/Sem VI/LABS/CD LAB$ ☐
```

23. Write a program in lex/c to count alternative word which will startfrom alphabet "k".

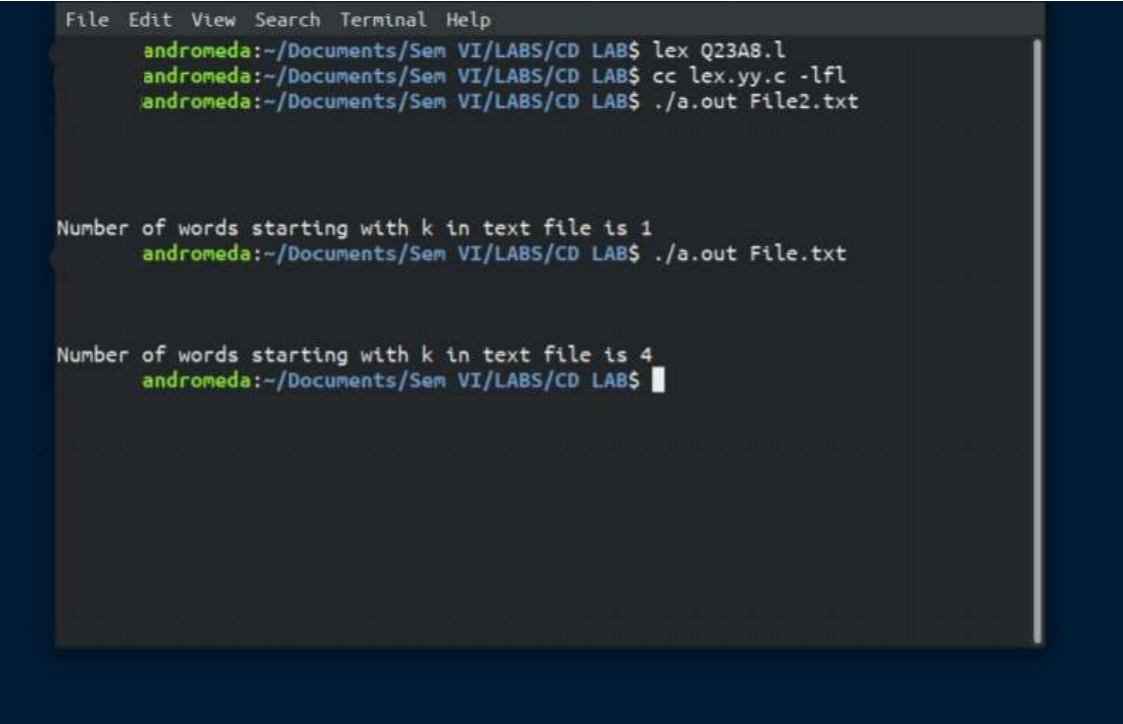## Code:-

```
%{ #include<stdio.h>
        int count=0;
%}

%%
[k/K][A-Za-z]+                          {count++;}
.
%%
void main(int argc,char *argv[]){

        yyin=fopen(argv[1],"r");

    yylex();
    printf("Number of words starting with k in text file is %d\
n", count);
}
int yywrap()
{
    return 1 ;   }
```

Output:-