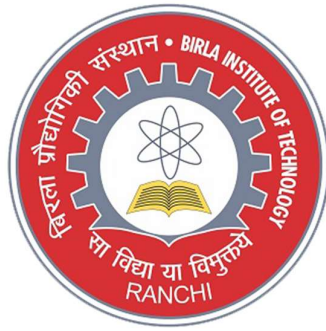


Birla Institute of Technology, Mesra,  
Patna Campus



CD-LabQuiz

Name-Shubham Sourabh

Roll-Btech/15044/18

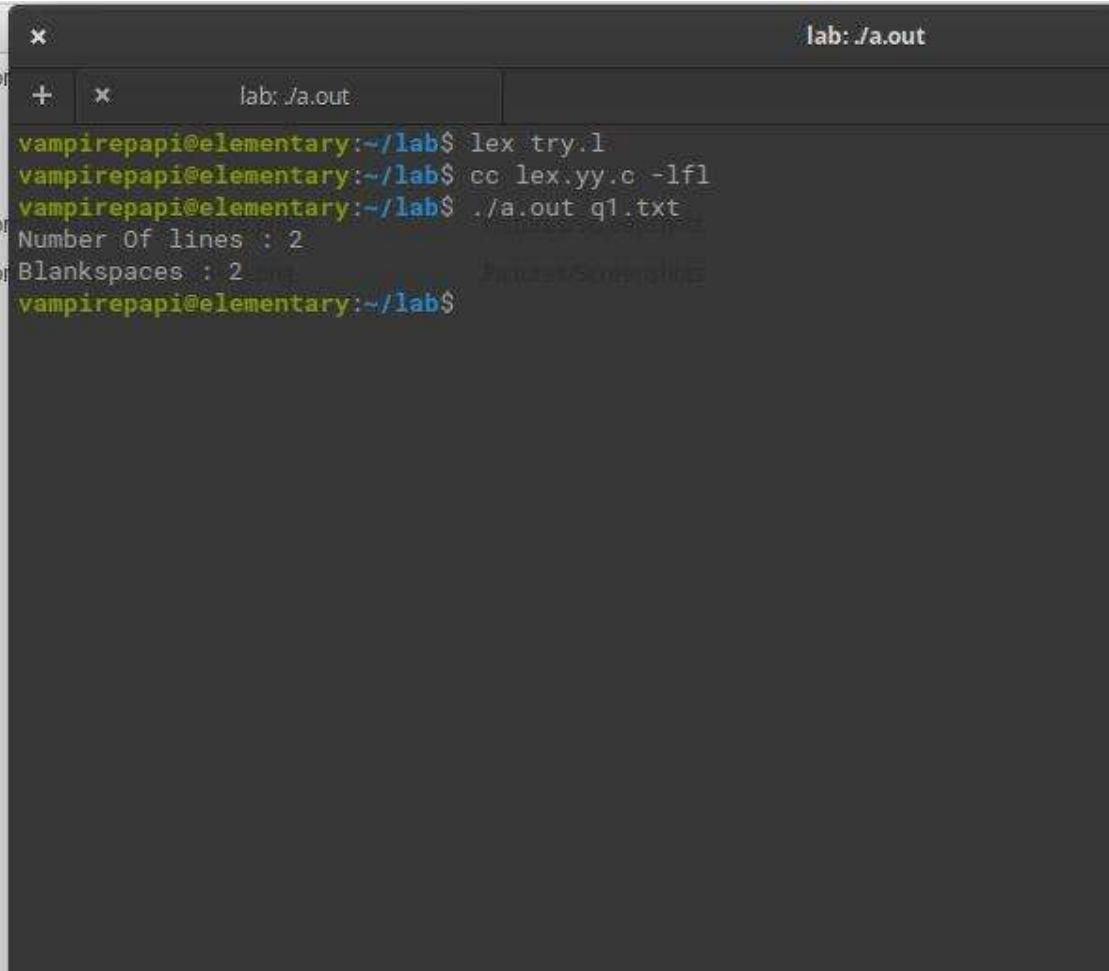
Sec-CSE 6<sup>th</sup>

**Q1. Write the program in Lex to count no of lines and blank spaces of that file.**

**Code:-**

```
%{
#include<stdio.h>
int word=0,character=0,space=0,lines=0;
}%
%%
[A-Za-z|0-9]+ {word++;character=character+strlen(yytext);}
. {character++;}
\n {lines++;character++;}
[ \n\t\r]+ {space++;}
%%
int main(int argc,char **argv)
{
yyin=fopen(argv[1],"r");
yylex();
printf("Number Of lines : %d\n",lines);
printf("Blank spaces : %d\n",space);
}
```

## Output:-



```
lab: ./a.out
vampirepapi@elementary:~/lab$ lex try.1
vampirepapi@elementary:~/lab$ cc lex.yy.c -lf1
vampirepapi@elementary:~/lab$ ./a.out q1.txt
Number Of lines : 2
Blankspaces : 2
vampirepapi@elementary:~/lab$
```

**Q2. Write the program in Lex to display number 0 to 9.**

## Code:-

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

```

%}

/* rules */

%%

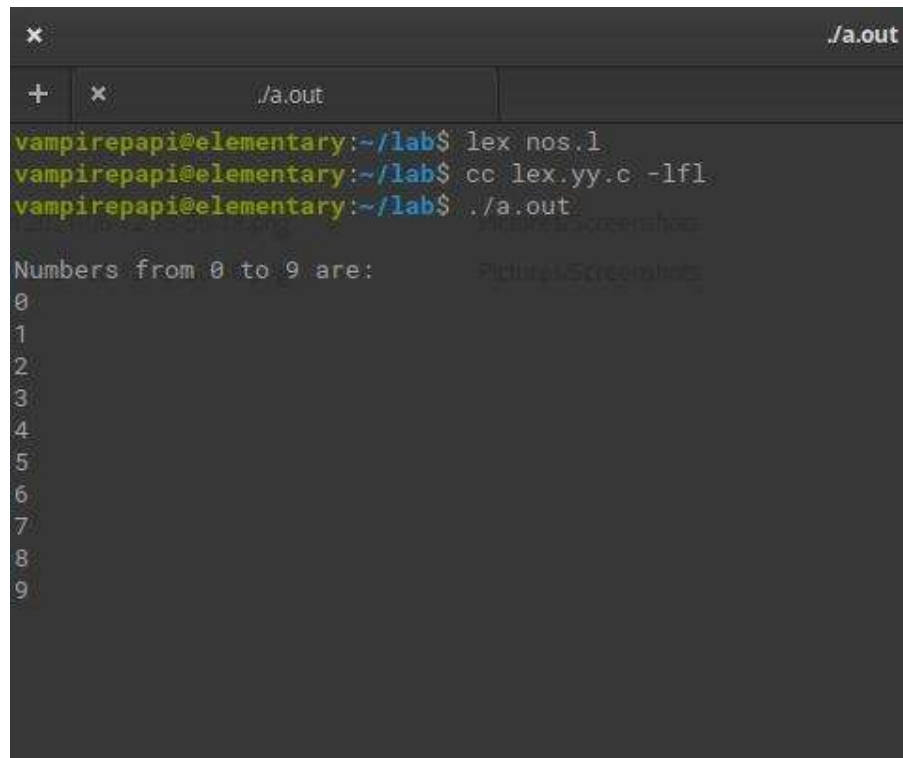
[\n] {printf("Numbers from 0 to 9 are:
\n0\n1\n2\n3\n4\n5\n6\n7\n8\n9\n"); }

%%

/* code (main) */
int main()
{
    yylex();
    return 0;
}

```

## Output:-



```

x .a.out
+ x .a.out
vampirepapi@elementary:~/lab$ lex nos.1
vampirepapi@elementary:~/lab$ cc lex.yy.c -lf1
vampirepapi@elementary:~/lab$ ./a.out
Numbers from 0 to 9 are:
0
1
2
3
4
5
6
7
8
9

```

**Q3. Write the program in C using file handling to count number of vowels of a file in which word starts from alphabet --t.**

**Code:-**

```
#include <stdio.h>

//c program
//to count
//no. of vowels

int main() {
    FILE *fp;
    char* file =
"C:\\Users\\vampirepapi\\Desktop\\nowhere\\Codes\\Cpp\\test.txt";
    unsigned short vowels = 0;
    char c;

    fp = fopen(file, "r"); // 'r' opens the file in read mode

    //printf("READING THE CONTENTS OF THE FILE [ %s ]\n", file);

    while((c = fgetc(fp)) != EOF) {
        if(c == 'a' || c == 'A' || c == 'e' || c == 'E' || c == 'i' || c == 'I' || c == 'o' || c ==
'O' || c == 'u' || c == 'U') {
            vowels++;
        }
    }
}
```

```
//    printf("%c", c);  
}  
  
printf("\n");  
  
printf("NUMBER OF VOWELS: %hu \n", vowels);  
  
fclose(fp);  
return 0;  
}
```

## Output:-

```
NUMBER OF VOWELS: 22  
[Finished in 0.9s]
```

**Q4. Write the program in C using file handling to count number of vowels with line numbers.**

**Code:-**

```
#include<process.h>
#include <stdio.h>
void main(int argc, char *argv[])
{

    FILE *fp;

    char* file =
"C:\\Users\\vampirepapi\\Desktop\\nowhere\\Codes\\Cpp\\test.txt";

    char c;

    fp = fopen(file, "r");
    int line = 1;
    while ((c = fgetc(fp)) != EOF)
    {
        int vowel = 0;
        if ((c == 'a') || (c == 'A') || (c == 'e') || (c == 'E') || (c == 'i') || (c == 'I') || (c
== 'o') || (c == 'O') || (c == 'u') || (c == 'U'))
        {
            vowel++;
        }
    }
}
```

```
}  
if (c == '\n') {  
    printf("\n Number of vowels in line %d are = %d", line, vowel);  
    line++;  
}  
c = fgetc(fp);  
}  
  
}
```

## Output:-

```
Number of vowels in line 2 are = 2  
Number of vowels in line 7 are = 5  
Number of vowels in line 12 are = 6  
Number of vowels in line 22 are = 12[Finished in 1.8s]
```

ECC: [ READY ], Line 9, Column 2