

# C o m p i l e r   D e s i g n   L A B

## Lab report

*Submitted by*

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3rd Year - CSE (Section A)



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**1. Write a program in Lex to count the number of identifiers, keywords and numbers.**

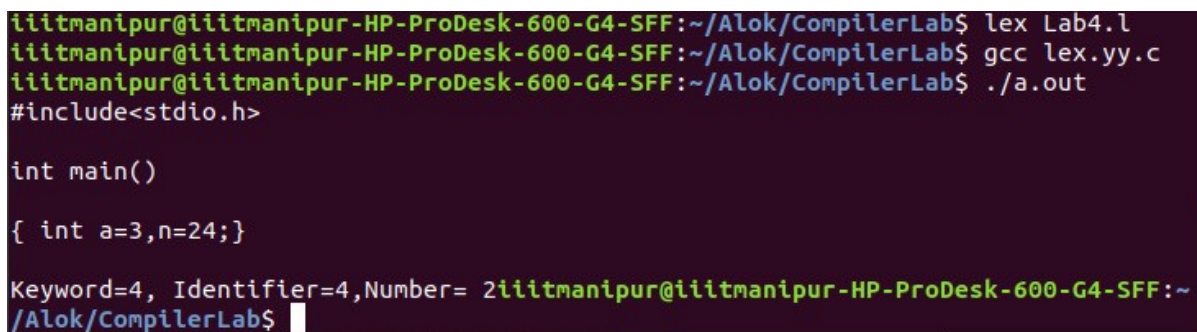
**Program:**

```
%{
#include<stdio.h>
int numKeyword=0,numNumber=0,numIdentifier=0;
%}
id [a-zA-Z]
digit [0-9]
op[+|-|*|/]

%%
printf|main|return|for|switch|scanf|include|case|while|void|int|float|double|goto|if|else] {
    numKeyword++;
}

{id}({id}|{digit})+ {
    numIdentifier++;
}
-?{digit}+ {
    numNumber++;
}
. {}
%%
int yywrap(){
    printf("Keyword=%d, Identifier=%d,Number= %d",numKeyword,numIdentifier,
numNumber);
    return 1;
}
int main(int argc, char* argv[])
{
    yylex();
    return 0;
}
```

**OUTPUT:**



```
iitmanipur@iitmanipur-HP-ProDesk-600-G4-SFF:~/Alok/CompilerLab$ lex Lab4.l
iitmanipur@iitmanipur-HP-ProDesk-600-G4-SFF:~/Alok/CompilerLab$ gcc lex.yy.c
iitmanipur@iitmanipur-HP-ProDesk-600-G4-SFF:~/Alok/CompilerLab$ ./a.out
#include<stdio.h>

int main()

{ int a=3,n=24;}

Keyword=4, Identifier=4,Number= 2iitmanipur@iitmanipur-HP-ProDesk-600-G4-SFF:~
/Alok/CompilerLab$
```