Compiler Design LAB

Lab report

Submitted by

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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:

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

int main()

{ int a=3,n=24;}

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