

CC Lab Assignment 2

```
%{
int chars = 0;
int lines = 0;
int spaces = 0;
int keywords=0;
int identifiers=0;
int nonIdentifiers = 0;
//identifiers + nonIdentifiers = words
int commentFlag = 0;
int singleLineComment = 0;
int commentCount = 0;
}%

%%
"/*" {if(!singleLineComment){commentFlag = 1;}}
"*/" {if(commentFlag){commentFlag = 0; commentCount++;}}
"//" {if(!commentFlag && !singleLineComment){commentCount++;}
singleLineComment = 1;}
int|char|double|float|long|struct|const|typedef|return|do|while|for|if|else|break|
continue|goto|void|switch|case {keywords++;}
[a-zA-Z][a-zA-Z0-9]* {identifiers++; chars +=strlen(yytext);}
[0-9]+[a-zA-Z0-9]* { nonIdentifiers++; chars += strlen(yytext);}
[\t]+ { chars++; spaces++;}
[\n] { chars++; lines++; if(singleLineComment){singleLineComment = 0;}}
. {chars++;}
%%
int main(int argc, char **argv)
{
    FILE *fp = fopen(argv[1], "r");
    yyin = fp;
    yylex();
    printf("\tAssignment 2\n");
    printf("A program to read tokens of a C program\n");
    printf("Lines: %8d\n", lines);
    printf("Characters: %8d\n", chars);
    printf("Keywords: %8d\n", keywords);
    printf("Identifiers: %8d\n", identifiers);
    printf("Words: %8d\n", (identifiers+nonIdentifiers));
    printf("Comments: %8d\n",commentCount);
    return 0;
}
```

```
isshan@dhruvpatel: ~/Desktop
File Edit View Search Terminal Help
isshan@dhruvpatel:~/Desktop$ lex flexBison1.l
isshan@dhruvpatel:~/Desktop$ cc lex.yy.c -lfl
isshan@dhruvpatel:~/Desktop$ ./a.out
Dhruv Patel
//kem cho baka
int a=0
return 0
// getch()
if count=10
then print count
/**/ Chalo bye Assignment 2
A program to read tokens of a C program
Lines:      7
Characters: 79
Keywords:   3
Identifiers: 13
Words:      16
Comments:   3
isshan@dhruvpatel:~/Desktop$
```

Dhruv Patel