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%{

#include <stdio.h>

#include <stdlib.h>

#include <stdbool.h>

int key;

int count;

string str[25];

int str\_count;

int int\_count;

int line\_count;

%}

letter [A-Za-z]

digit [0-9]

strings [\"[^\"\n]\*\"]

line [\n]

comments [/\*]

%%

{line} {line\_count++;printf("Line %d", line\_count);

"if" {printf("Keyword"); key++;}

"then" {printf("keyword"; key++;}

"else" {printf("Keyword"); key++;}

"true" {printf("keyword"); key++;}

"false" {printf("keyword"); key++;}

"func" {printf("keyword"); key++;}

{letter}({letter}|{digit})\* {printf("Identifier");count++;}

"+" {printf("Identifier");count++;}

"-" {printf("Identifier");count++;}

"\*" {printf("Identifier");count++;}

"/" {printf("Identifier");count++;}

"=" {printf("Identifier");count++;}

">" {printf("Identifier");count++;}

">=" {printf("Identifier");count++;}

"<" {printf("Identifier");count++;}

"<=" {printf("Identifier");count++;}

"==" {printf("Identifier");count++;}

"!=" {printf("Identifier");count++;}

{strings} {strncpy(str, &(yytext[1]), strlen(yytext)-2); str[strlen(yytext)-2] = (char) 0; printf("Quoted String");str\_count++;}

{comments} {skip\_comment();}

{-?([digit]+)} {printf("Integer Literal"); int\_count++;

"(" {printf("Left parenthesis");}

")" {printf("Right parenthesis");}

"," {printf("Comma");}

"::=" {printf("Assignment");}

"{" {printf("Left Brace");}

"}" {printf("Right brace");}

";" {printf("Semicolon");}

"" {printf("End of input");}

%%

int main()

{

int val, total = 0, n = 0;

bool arr[2]= {true, false};

while (yylex()) {

if(arr[0])

{

printf("number of identifiers = %d\nnumber of keyword = %d\,Total number of strings = %d\n, Total number of integers = %d\n", count, key, str\_count, int\_count);

}

else

{

printf("Invalid input on line %d", line\_count);

}

return 0;

}