%option noyywrap

%{

#include<stdio.h>

#include<string.h>

struct SymbolTable

{

char symbol[10];

char type[10];

}SymbolTable[10];

int count = 0;

char data[10];

char type[10];

void insert();

void display();

%}

letter[a-zA-Z]

digit[0-9]

num({digit}{digit}\*)

KEYWORDS "class"|"static"

datatype(int|char|float|void)

CONDITIONAL "if"|"else"|"else if"|"switch"|"case"

SC ";"

array({id}(\[))

id({letter}({letter}|{digit})\*)

ARITH\_OP "+"|"-"|"/"|"%"|"\*";

LOGICAL\_OP "&&"|"||"|"!"|"!="

REL\_OP "<"|">"|"<="|">="|"=="

UNARY "++"|"--"

%%

{datatype} {printf("%s is an datatype\n",yytext);}

{CONDITIONAL} { printf("%s\t==> CONDITIONAL\n",yytext);}

{num} {printf("%s is a number\n",yytext);}

{array} {printf("%s is an array\n",yytext);insert(yytext,"array");}

{KEYWORDS} {printf("%s\t==> KEYWORDS\n",yytext);}

{id} {printf("%s is an identifier\n",yytext);insert(yytext,"id");}

{UNARY} {printf("%s\t==> UNARY OP\n",yytext);}

{ARITH\_OP} {printf("%s\t==> ARITHMETIC OPERATOR\n",yytext);}

{LOGICAL\_OP} {printf("%s\t==> LOGICAL OP\n",yytext);}

{SC} {printf("%s\t==> DELIMITER\n",yytext);}

"=" {printf("%s\t==> ASSIGNMENT OP\n",yytext);}

"{" {printf("%s\t==> BLOCK BEGIN\n",yytext);}

"}" {printf("%s\t==> BLOCK END\n",yytext);}

"(" {printf("%s\t==> PARANTHESIS BEGIN\n",yytext);}

")" {printf("%s\t==> PARENTHESIS END\n",yytext);}

%%

int main()

{

yylex();

display();

return 0;

}

void insert(char data[10],char type[10])

{strcpy(SymbolTable[count].symbol,data);

strcpy(SymbolTable[count].type,type);

++count;

}

void display()

{

int i;

printf("\*\*\*\*Symbol Table\*\*\*");

for(int i=0;i<count;i++)

{

printf("\n%s\t%s",SymbolTable[i].symbol,SymbolTable[i].type);

}

}

**OUTPUT**

C:\Flex Windows\EditPlusPortable>flex ssc5.l

C:\Flex Windows\EditPlusPortable>gcc lex.yy.c

C:\Flex Windows\EditPlusPortable>a

int main(int arr[10];)

int is an datatype

main is an identifier

( ==> PARANTHESIS BEGIN

int is an datatype

arr[ is an array

10 is a number

]; ==> DELIMITER

) ==> PARENTHESIS END

^Z

\*\*\*\*Symbol Table\*\*\*

main id

arr[ array

C:\Flex Windows\EditPlusPortable>