

```

1  /*
2  Name : Vasu Kalariya
3  Roll : PE29
4  SSC Practical Exam Chit 6
5  */
6
7
8  %option noyywrap
9  %{
10     #include<stdio.h>
11     #include<string.h>
12     struct SymbolTable
13     {
14         char symbol[10];
15         char type[10];
16     }SymbolTable[10];
17     int count = 0;
18     char data[10];
19     char type[10];
20     void insert();
21     void display();
22     %}
23     letter[a-zA-Z]
24     digit[0-9]
25     num(({digit}){digit}*)
26     KEYWORDS "class"|"static"
27     datatype(int|char|float|void)
28     CONDITIONAL "if"|"else"|"else if"|"switch"|"case"
29     SC ";"
30     array(({id})(\[]))
31     id(({letter})({letter}|{digit})*)
32     ARITH_OP "+"|"-"|"/"|"%"|"*";
33     LOGICAL_OP "&&"|"||"|"!"|"!="
34     REL_OP "<"|">"|"<="|">="|"=="
35     UNARY "++"|"--"
36     %%
37
38     {num} {printf("%s is a NUMBER\n",yytext);}
39     {KEYWORDS} {printf("%s is a KEYWORDS\n",yytext);}
40     {id} {printf("%s is an identifier\n",yytext);insert(yytext,"id");}
41     {UNARY} {printf("%s is an UNARY OP\n",yytext);}
42     {ARITH_OP} {printf("%s is a ARITHMETIC OPERATOR\n",yytext);}
43     {LOGICAL_OP} {printf("%s is LOGICAL OP\n",yytext);}
44     {array} {printf("%s is an array\n",yytext);insert(yytext,"array");}
45     {SC} {printf("%s is DELIMITER\n",yytext);}
46     "{" {printf("%s\t==> BLOCK BEGIN\n",yytext);}
47     "\"" {printf("%s\t==> BLOCK END\n",yytext);}
48     %%
49
50     int main()
51     {
52         yylex();
53         display();
54         return 0;
55     }
56     void insert(char data[10],char type[10])
57     {
58         strcpy(SymbolTable[count].symbol,data);
59         strcpy(SymbolTable[count].type,type);
60         ++count;
61     }
62     void display()
63     {
64         int i;
65         printf("----Symbol Table----");
66         for(int i=0;i<count;i++)
67         {
68             printf("\n%s\t%s",SymbolTable[i].symbol,SymbolTable[i].type);
69         }

```



```
Command Prompt
Microsoft Windows [Version 10.0.19042.985]
(c) Microsoft Corporation. All rights reserved.

C:\Users\kalar>F:

F:\>cd F:\T9\Practicle\SSC

F:\T9\Practicle\SSC>flex sac.;
flex: can't open sac.;

F:\T9\Practicle\SSC>flex sac.l

F:\T9\Practicle\SSC>gcc lex.yy.c

F:\T9\Practicle\SSC>a.exe
2
2 is a NUMBER

id
id is an identifier

&&
&& is LOGICAL OP

nu
nu is an identifier

^Z
----Symbol Table----
id      id
nu      id
F:\T9\Practicle\SSC>
```

```
Command Prompt
id      id
nu      id
F:\T9\Practicle\SSC>a.exe
66
66 is a NUMBER

My
My is an identifier

||
|| is LOGICAL OP

68
68 is a NUMBER

+
+ is a ARITHMETIC OPERATOR

^Z
----Symbol Table----
My      id
F:\T9\Practicle\SSC>
```