

OUTPUT:

```
(kali㉿kali)-[~/Documents/cdlab]
$ vi exp1.c

(kali㉿kali)-[~/Documents/cdlab]
$ gcc exp1.c

(kali㉿kali)-[~/Documents/cdlab]
$ ./a.out
The expression is: float b= 0.5 * b;'float' IS A KEYWORD
'b' IS A VALID IDENTIFIER
'=' IS AN OPERATOR
'0.5' IS A REAL NUMBER
'*' IS AN OPERATOR
'b' IS A VALID IDENTIFIER
```

RESULT:

Thus, a C program is implemented to identify C keywords, identifiers, operators and end statements.

Exp No: 2

Date:

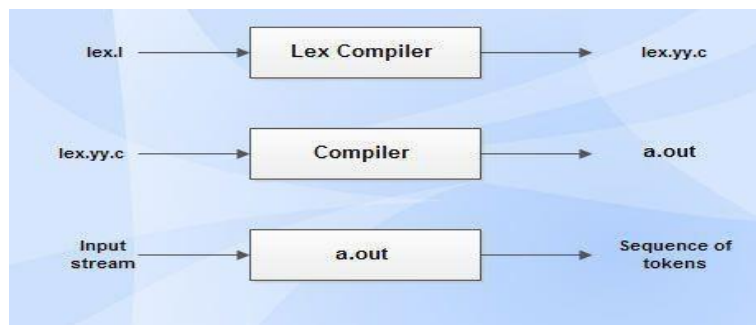
IMPLEMENT A LEXICAL ANALYZER TO COUNT THE NUMBER OF WORDS USING LEX TOOL

AIM:

To implement the program to count the number of words in a string using LEX tool.

STUDY:

Lex is a tool in lexical analysis phase to recognize tokens using regular expression. Lex tool itself is a lex compiler.



- lex.l is an input file written in a language which describes the generation of lexical analyzer. The lex compiler transforms lex.l to a C program known as lex.yy.c.
- lex.yy.c is compiled by the C compiler to a file called a.out.
- The output of C compiler is the working lexical analyzer which takes stream of input characters and produces a stream of tokens.
- yylval is a global variable which is shared by lexical analyzer and parser to return the name and an attribute value of token.
- The attribute value can be numeric code, pointer to symbol table or nothing.
- Another tool for lexical analyzer generation is Flex.

STRUCTURE OF LEX PROGRAMS:

Lex program will be in following form declarations

%%

translation rules

%%

auxiliary functions