Write a LEX program to implement basic mathematical operations.

**Program: (cal.l)**

%{

#undef yywrap

#define yywrap() 1

int f1=0,f2=0;

char oper;

float op1=0,op2=0,ans=0;

void eval();

%}

DIGIT [0-9]

NUM {DIGIT}+(\.{DIGIT}+)?

OP [\*/+-]

%%

{NUM} {

if(f1==0)

{

op1=atof(yytext);

f1=1;

}

else if(f2==-1)

{

op2=atof(yytext);

f2=1;

}

if((f1==1) && (f2==1))

{

eval();

f1=0;

f2=0;

}

}

{OP} {

oper=(char) \*yytext;

f2=-1;

}

[\n] {

if(f1==1 && f2==1)

{

eval;

f1=0;

f2=0;

}

}

%%

int main()

{

yylex();

}

void eval()

{

switch(oper)

{

case '+':

ans=op1+op2;

break;

case '-':

ans=op1-op2;

break;

case '\*':

ans=op1\*op2;

break;

case '/':

if(op2==0)

{

printf("ERROR");

return;

}

else

{

ans=op1/op2;

}

break;

default:

printf("operation not available");

break;

}

printf("The answer is = %lf",ans);

}

**Output:**

C:\lex\_programs>a.exe

11\*9

The answer is = 99.000000

2004+2005

The answer is = 4009.000000

11/10

The answer is = 1.100000

69-96

The answer is = -27.000000

