PRACTICAL-12

AIM: Create Yacc and Lex specification files are used to generate a calculator which accepts, integer and float type arguments.

CODE:

Calc.l:

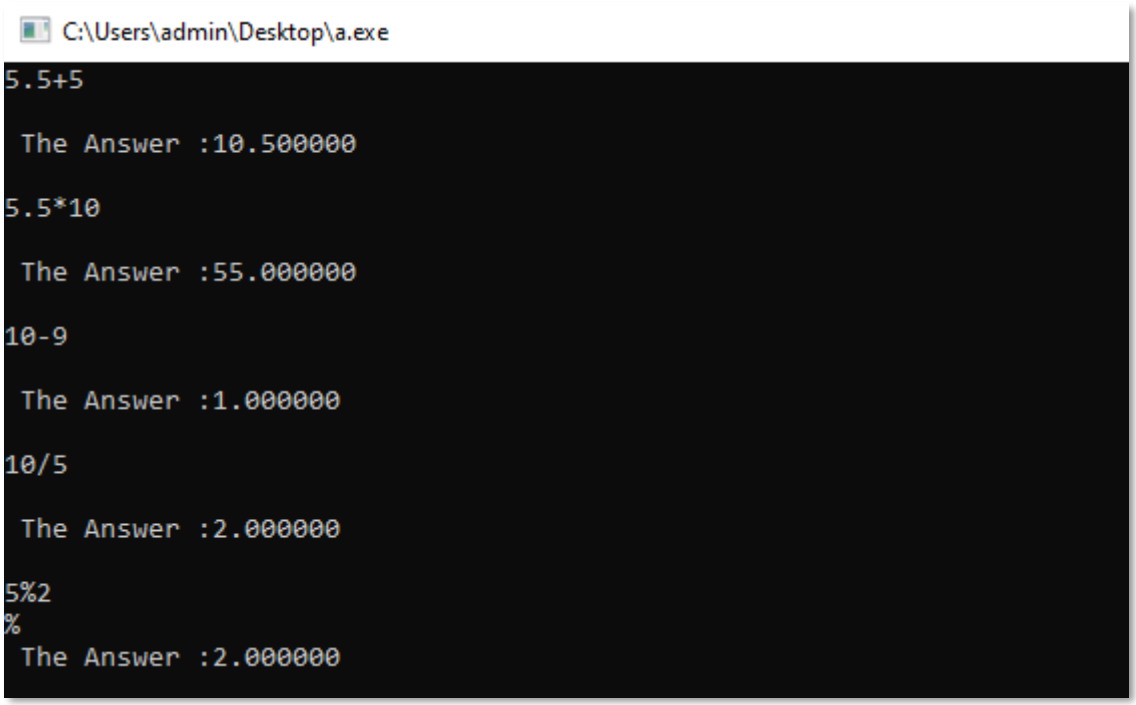
```
%{
#include<stdio.h>
#include "y.tab.h"
extern float yylval;
int op = 0,i;
float a, b;
%}
%%
 [0-9]+|([0-9]*)"."([0-9]+)
{
yylval=atof(yytext);
return NUMBER; }
[\t] ;
. return yytext[0];
%%
main()
{
yylex();
}
int yywrap()
{
return 1;
}
```

Calc.y:

```
%{
```

```
#include<stdio.h>
int flag=0;
%}
%token NUMBER
%left '+' '-'
%left '*' '/' '%'
%left '(' ')'
%%
ArithmeticExpression: E{
printf("\nResult=%f\n", $$);
return 0;
};
E:E'+'E {$$=$1+$3;}
|E'-'E {$$=$1-$3;}
|E'*'E {$$=$1*$3;}
|E'/'E {$$=$1/$3;}
|E'%'E {$$=$1%$3;}
|'('E')' {$$=$2;}
| NUMBER {$$=$1;}
;
%%
void main()
{
yyparse();
}
```

OUTPUT:


C:\Users\admin\Desktop\a.exe
5.5+5
The Answer :10.500000
5.5*10
The Answer :55.000000
10-9
The Answer :1.000000
10/5
The Answer :2.000000
5%2
%
The Answer :2.000000