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Calculator using Lex and YACC

.lex file→

```
%{
    #include<stdio.h>
    #include "y.tab.h"
    extern int yylval;
}%

%%
[0-9]+ {
    yylval=atoi(yytext);
    return NUMBER;

}
[ ] ;

[ ] return 0;

. return yytext[0];

%%

int yywrap()
{
    return 1;
}
```

.yacc file→

```
%{
    #include<stdio.h>
    int flag=0;
}%
%token NUMBER
%left '+' '-'
%left '*' '/' '%'
%left '(' ')'
%%
```

```

ArithmeticExpression: E{
    printf("\nResult=%d\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()
{
    printf("\n---CALCULATOR USING LEX AND YACC---\n");
    printf("\nEnter an arithmetic expression:");
    yyparse();
    if(flag==0)
        printf("\nArithmetic expression is valid...\n\n");
}
void yyerror()
{
    printf("\nArithmetic expression is invalid...\n\n");
    flag=1;
}

```

Output-->

```
amod@amod-HP-Laptop: ~/Desktop
File Edit View Search Terminal Help
amod@amod-HP-Laptop:~/Desktop$ lex calc.l
amod@amod-HP-Laptop:~/Desktop$ yacc -d calc.y
amod@amod-HP-Laptop:~/Desktop$ gcc lex.yy.c y.tab.c -w
amod@amod-HP-Laptop:~/Desktop$ ./a.out

---CALCULATOR USING LEX AND YACC---

Enter an arithmetic expression:40/5

Result=8

Arithmetic expression is valid...

amod@amod-HP-Laptop:~/Desktop$
```