YACC Program

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S7 CSE

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<u>yaceg.y</u>

```
%{
#include<stdio.h>
#include"lex.yy.c"
int yyerror(char *);
int yywrap();
%}

%token NUMBER

%%
result:e'\n'{printf("Output : %d\n\n",$$);
        exit(0);};

e       :e '+' t { $$ = $1 + $3;}
        |e '-' t { $$ = $1 - $3;}
        |t    { $$ = $1;};

t       :t '*' f { $$ = $1 * $3;}
        |t '/' f { $$ = $1 / $3;}
        |f    { $$ = $1;};

f       : '('e')'{$$ = $2;}
        |NUMBER{$$ = $1;};

%%
int main(void)
{
        return yyparse();
}
```

```
int yyerror(char *msg)
{
        return fprintf(stderr,"YACC: %s\n",msg);
}

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

yaaclex.l

```
%{
#include"yaaceg.tab.h"
extern int yylval;
%}

%%
([0-9])+            {yylval = atoi(yytext);
                    return NUMBER;}
[\t]        {}
\n          {printf("\n");return yytext[0];}
[^0-9]      {return yytext[0];}

%%
```

Output

57613@user:/mnt/57613/compiler/yacc$ flex yaaclex.l
57613@user:/mnt/57613/compiler/yacc$ bison yaaceg.y -d
57613@user:/mnt/57613/compiler/yacc$ gcc -o out yaaceg.tab.c

```
57613@user:/mnt/57613/compiler/yacc$ ./out
2+3

Output : 5

57613@user:/mnt/57613/compiler/yacc$ ./out
5*8

Output : 40


57613@user:/mnt/57613/compiler/yacc$
```