



# MINI CALCULATOR

Compilation Project

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## BISON FILE

```
1  %{
2      #include<stdio.h>
3      #define YYSTYPE int
4      int yyparse();
5      int yylex();
6      yyerror(char *s);
7  %}
8  %token NOMBRE
9  %left PLUS
10 %left MINUS
11 %left MULT
12 %left DIV
13 %start RES
14 %%
15 RES: EXP {printf("Calcul: %d\n", $1);}
16     EXP: NOMBRE |Add|Sous|Prod|Div {$$=$1;}
17     Add: EXP PLUS EXP {printf("c'est une addition\n"); $$ = $1 + $3;}
18     Sous: EXP MINUS EXP {printf("c'est une soustraction\n"); $$ = $1 - $3;}
19     Prod: EXP MULT EXP {printf("c'est une production\n"); $$ = $1 * $3;}
20     Div: EXP DIV EXP {printf("c'est une division\n"); $$ = $1 / $3;}
21 %%
22 void yyerror(char *s)
23 {
24     printf ("Erreur %s", s);
25     return 0;
26 }
27 int main(void)
28 {
29     yyparse();
30     return 0;
31 }
```

## FLEX FILE

```
1  ✓ %{
2    |   #include<stdio.h>
3    |   %}
4    %option noyywrap
5    others [ \t\n]+
6    number [0-9]+
7    plus \+
8    minus \-
9    prod \*
10   div \/
11   %%
12   {others}    {}
13   {number}    {yyval = atoi(yytext); return(NOMBRE); }
14   {plus}      {return(PLUS); }
15   {minus}     {return(MINUS); }
16   {prod}      {return(MULT); }
17   {div}       {return(DIV); }
18   %%
19   void main(){
20     yylex() ;
21   }
```

## Change Directory

```
Command Prompt
Microsoft Windows [Version 10.0.19044.1645]
(c) Microsoft Corporation. All rights reserved.

C:\Users\achra>cd C:\Users\achra\Downloads\Faculty\Projects\Compilation Project Calculator

C:\Users\achra\Downloads\Faculty\Projects\Compilation Project Calculator>
```

## Compile Bison File

```
C:\Users\achra\Downloads\Faculty\Projects\Compilation Project Calculator>bison -d calcul.y
```

## Compile Flex File

```
C:\Users\achra\Downloads\Faculty\Projects\Compilation Project Calculator>flex -ocalcul.c calcul.1
```

## Execution

```
C:\Users\achra\Downloads\Faculty\Projects\Compilation Project Calculator>gcc -c -Wall calcul flex.c
gcc: error: calcul: No such file or directory
gcc: error: flex.c: No such file or directory
gcc: fatal error: no input files
compilation terminated.

C:\Users\achra\Downloads\Faculty\Projects\Compilation Project Calculator>gcc -Wall calcul.o calcul flex.o -o miniCalculator
gcc: error: calcul.o: No such file or directory
gcc: error: calcul: No such file or directory
gcc: error: flex.o: No such file or directory
gcc: fatal error: no input files
compilation terminated.
```

