Name: - Dev Chhawachharia  
Roll Number:- 322014  
PRN:- 22010381  
TY B

## Assignment 5

AIM: - Write a program to evaluate an arithmetic expression

Source code:

Lex:

%{

#include "y.tab.h"

%}

%%

[0-9]+ {

yylval = atoi(yytext);

return Number;}

[a-zA-Z]+ { return ID;}

[ \t]+ ;

\n {return 0;}

. {return yytext[0];}

%%

int yywrap(){return(1);}

yacc:

%{

#include<stdio.h>

%}

%token Number ID

%left '+' '-'

%left '\*' '/'

%%

E : T {

printf("Result = %d\n",$$);

return 0;

}

T:

T '+' T {$$ =$1 +$3;}

| T '-' T { $$ = $1 - $3; }

| T '\*' T { $$ = $1 \* $3; }

| T '/' T { $$ = $1 / $3; }

| '-' Number { $$ = -$2; }

| '-' ID { $$ = -$2; }

| '(' T ')' { $$ = $2; }

| Number { $$ = $1; }

| ID { $$ = $1; };

%%

int main() {

printf("Enter the expression\n");

yyparse();

}

int yyerror(char\* s) {

printf("\nExpression is invalid\n");

}

(in screenshot form:)

Text

Description automatically generated

Text

Description automatically generated

Compilation:

Text

Description automatically generated

Output:

Text

Description automatically generated