

## PROGRAM:

### cdlab5.l:

```
% {
    #include "y.tab.h"
% }

%%

[a-zA-Z_][a-zA-Z_0-9]* return id;

[0-9]+(\\.[0-9]*)?    return num;

[+/*]                return op;

.                    return yytext[0];

\\n                    return 0;

%%
```

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

### cdlab5.y:

```
% {

    #include<stdio.h>
    int yylex();
    int yyerror();
    int valid=1;

% }

%token num id op

%%

start : id '=' s ';'

s :    id x

    | num x

    | '-' num x

    | '(' s ')' x

    ;

x :    op s
```

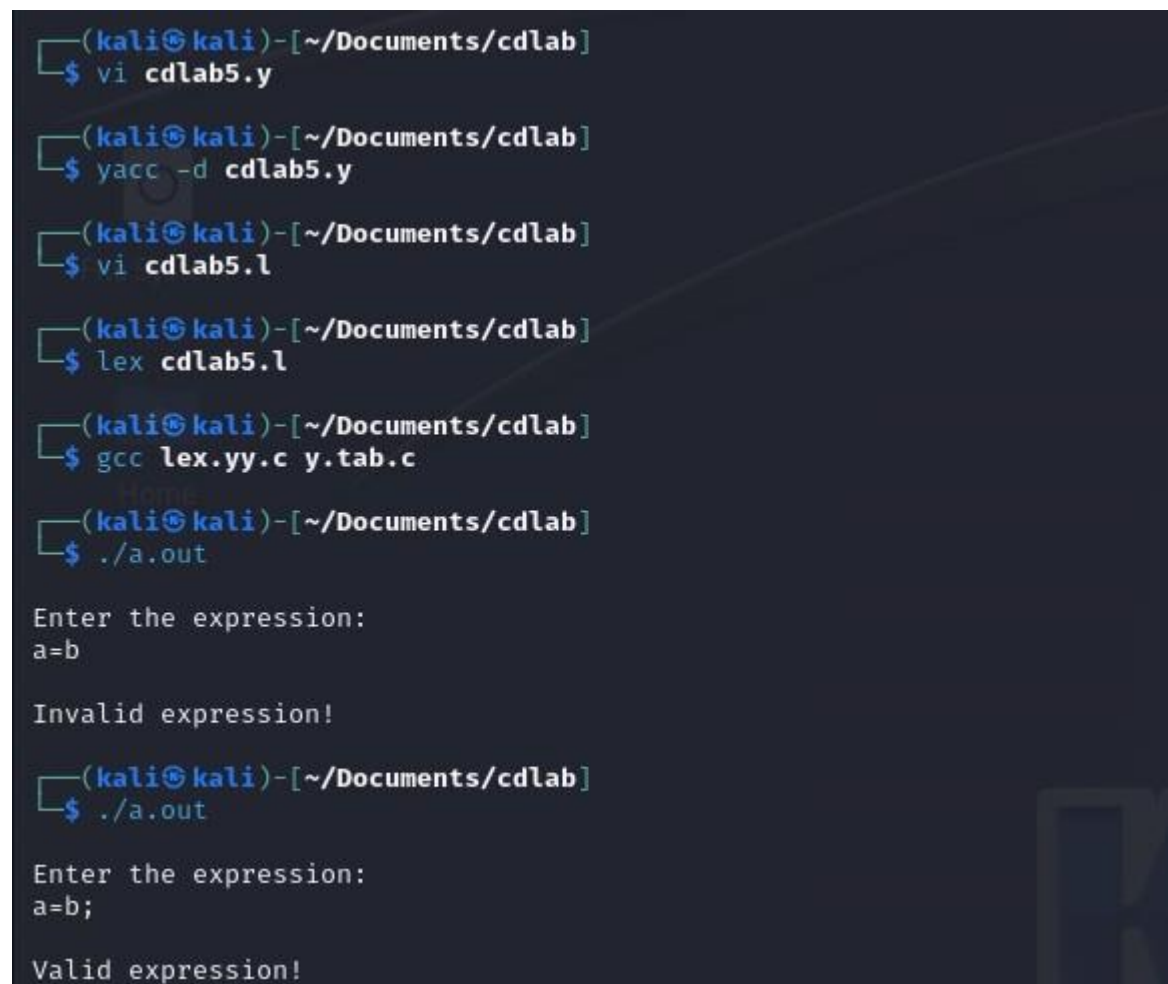
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```

    | '-' s
    |
    ;
%%
int yyerror(){
    valid=0;
    printf("\nInvalid expression!\n");
    return 0;
}
int main(){
    printf("\nEnter the expression:\n");
    yyparse();
    if(valid){
        printf("\nValid expression!\n");
    }
}

```

### OUTPUT:



```

(kali㉿kali)-[~/Documents/cdlab]
$ vi cdlab5.y

(kali㉿kali)-[~/Documents/cdlab]
$ yacc -d cdlab5.y

(kali㉿kali)-[~/Documents/cdlab]
$ vi cdlab5.l

(kali㉿kali)-[~/Documents/cdlab]
$ lex cdlab5.l

(kali㉿kali)-[~/Documents/cdlab]
$ gcc lex.yy.c y.tab.c

(kali㉿kali)-[~/Documents/cdlab]
$ ./a.out

Enter the expression:
a=b

Invalid expression!

(kali㉿kali)-[~/Documents/cdlab]
$ ./a.out

Enter the expression:
a=b;

Valid expression!

```

### RESULT:

Thus, a program to check whether the arithmetic expression using lex and yacc tool is implemented.