**5: Lex**

%{

#include<stdio.h>

#include<string.h>

int flag=0,i=0,j,k=0;

char operand[20][20],oparator[20][20];

%}

%%

[a-zA-Z0-9]+ {flag++; strcpy(operand[i],yytext); i++;}

[-+\*/] {flag--; strcpy(oparator[k],yytext); k++;}

%%

int main(int argc, char\* argv[])

{

printf("enter an arithmetic expression\n");

yylex();

if(flag!=1)

printf("Invalid expression\n");

else

{

printf("Valid expression\n");

printf("The operands are\t");

for(j=0;j<i;j++)

printf("%s\t",operand[j]);

printf("\nThe operators are\t");

for(j=0;j<k;j++)

printf("%s\t",oparator[j]);

printf("\n");

}

}

int yywrap( )

{

return 1;

}

install

1. Opening the terminal

2. Type - **sudo apt-get install flex**

3. Enter your password after installation of flex finishes

4. Type - **sudo apt-get install bison**

5. Enter your password.

Running a Lex and Yacc program for compiling a lex program

1. write the lex program in a file and save it as file.l (where file is the name of the file).

2. open the terminal and navigate to the directory where you have saved the file.l

3. type - lex file.l

4. then type - cc lex.yy.c -ll / gcc lex.yy.c

5. then type - ./a.out

Your lex progam will be running now (provided it is correct).

for compiling lex and yacc together

1write lex program in a file file.l and yacc in a file file.y

2 open the terminal and navigate to the directory where you have saved the files.

3. type lex file.l

4. type yacc file.y

5. type cc lex.yy.c y.tab.h -ll / gcc lex.yy.c y.tab.c

6. type ./a.out The lex and yacc will run succesfully now