**Lex File:**

%{

#include<stdio.h>

#include "y.tab.h"

%}

%%

"for" {return FOR;}

"(" {return LP;}

")" {return RP;}

";" {return SC;}

[a-zA-Z\_][a-zA-Z0-9\_]\* {return ID;}

"+"|"-"|"\*"|"/"|"="|"=="|"<"|"<="|">"|">="|"&&"|"||" {return BOP;}

"++"|"--" {return UOP;}

[0-9]+ {return NUM;}

. {}

%%

int yywrap()

{

return 1;

}

**YACC file:**

%{

#include<stdio.h>

extern int yylex();

int yyerror(const char \*);

%}

%token FOR LP RP SC ID NUM UOP BOP

%%

P:S

;

S: FOR LP E SC E SC E RP

{

printf("valid for loop detected\n");

}

;

E: ID | NUM | ID BOP ID | ID BOP NUM | ID UOP | UOP ID

;

%%

int main()

{

yyparse();

return 0;

}

int yyerror(const char \*s){

fprintf(stderr, "Errror:%s\n",s);

return 0;

}

Output:

