**LEX and YACC Program to check syntax of while**

**YACC FILE**

**Source Code:**

%{

#include

void yyerror(char \*);

int yylex();

%}

%token WHILE AND OR NTEQ EQ LT LTEQ GT GTEQ ID NUM

%%

whileloop : WHILE '(' cond ')' '{' A '}' {printf("parsing

successful");}

;

cond : scond

| scond logop cond

;

scond : nid

| nid relop nid

;

nid : ID

| NUM

;

logop : AND

| OR

;

relop : NTEQ

| EQ

| LT

| LTEQ

| GT

| GTEQ

;

%%

void yyerror(char \*s)

{

printf("\nparsing err ");

}

int main()

{

yyparse();

return 0;

}

**Lex FILE**

**Source Code:**

%{

#include "y.tab.h"

void yyerror(char \*);

%}

%%

"while" {return WHILE;}

"&&" {return AND;}

"||" {return OR;}

"!=" {return NTEQ;}

"==" {return EQ;}

"<" {return LT;}

"<=" {return LTEQ;}

">" {return GT;}

">=" {return GTEQ;}

[=,{}();] {return \*yytext;}

[ \t\n]+ ;

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

[0-9]+ {return NUM;}

. {printf("\n\nlex err");}

%%

int yywrap()

{

return 1;

}

**OUTPUT:**

[cmsa@localhost whileloop]$ yacc -d while.y

[cmsa@localhost whileloop]$ lex while.l

[cmsa@localhost whileloop]$ cc lex.yy.c y.tab.c -o a

[cmsa@localhost whileloop]$ ./a