**Exp 3:**

**Write the lex and yacc program to simulate the working of Deterministic**

**Finite Automata (DFA)**

%{ **//Yacc Code:**

#include <stdio.h>

#include <stdlib.h>

int yylex();

void yyerror(char \*s) { printf("Error: %s\n", s); }

%}

%token 'a'

%token 'b'

%%

input:

/\*space\*/ | input string

{ if ($2 == 2)

printf("Valid string (ends with 'ab')\n");

else

printf("Invalid string (does not end with 'ab')\n"); };

string:

{ $$ = 0; } // Starting state q0

| string 'a' { $$ = ($1 == 0 || $1 == 1) ? 1 : 0; }

| string 'b' { $$ = ($1 == 1) ? 2 : 0; }

;

%%

int main() {

printf("Enter a string:\n");

yyparse();

return 0;

}

**Lex Code:**

%{ //

#include "y.tab.h"

%}

%%

a { return 'a'; }

b { return 'b'; }

. { return yytext[0]; }

%%

int yywrap() {

return 1;

}

Output:



