EXP 1

To write a C program to simulate a Deterministic Finite Automata.

Code:

#include<stdio.h>

#include<string.h>

#define max 20

**int** main()

{

printf("\n DFA PROGRAM\t\n");

**int** trans[100][100],l,i,j,l1,next=0,present,final,in=0;

printf("ENTER THE ROWS::");

scanf("%d",&l);

printf("ENTER THE COLUMNS::");

scanf("%d",&l1);

**for**(i=0;i<l;i++)

{

**for**(j=0;j<l1;j++){

printf("ENTER THE TRANSITION TABLE::");

scanf("%d",&trans[i][j]);

}

}

printf("ENTER THE PRESENT STATE::");

scanf("%d",&present);

printf("ENTER THE final STATE::");

scanf("%d",&final);

**char** st[max];

printf("ENTER THE STRING::");

scanf("%s",st);

**int** len=strlen(st);

**for**(i=0;i<len;i++){

**if**(st[i]=='a'){

next=trans[present][0];

}

**else** **if**(st[i]=='b'){

next=trans[present][1];}

**else**{

in=1;

present=next;

}

}

**if**(in==1)

{

printf("invalid\n");

}

**else** **if**(present=next)

{

printf("Accept\n");

}

**else**{

printf("Not accept\n");

}

}

OUTPUT:

