**Acceptance of string by DFA**

#include <stdio.h>

int main()

{

char str[10];

printf("Enter string");

scanf("%s",str);

int state=0;

int i=0;

while(str[i]!= NULL && state!=4 && state != 5)

{

switch(state)

{ case 0: if(str[i]=='b')

state=1;

else if(str[i]=='a')

state=5;

else state=4;

break;

case 1: if(str[i]=='a')

state=2;

else if(str[i]=='b')

state=5;

else state=4;

break;

case 2: if(str[i]=='b')

state=3;

else if(str[i]=='a')

state=5;

else state=4;

break;

case 3: if(str[i]=='a')

state=3;

else if(str[i]=='b')

state=5;

else state=4;

break;

case 4: printf("not accepted");

break;

case 5: printf("String does not belong to DFA");

break;

default: printf("string");

}

i++;

}

if(state==3)

printf("STRING Accepted");

else printf("\n String rejected");

return 0;

}