

DETERMINISTIC FINITE AUTOMATA :

```
#include<stdio.h>
#include<string.h>
#define max 20
int main()
{
    int trans_table[4][2]={1,3},{1,2},{1,2},{3,3}};
    int final_state=2,i;
    int present_state=0;
    int next_state=0;
    int invalid=0;
    char input_string[max];
    printf("enter a string: ");
    scanf("%s",input_string);
    int l=strlen(input_string);
    for(i=0;i<l;i++)
    {
        if(input_string[i]=='a')
            next_state=trans_table[present_state][0];
        else if(input_string[i]=='b')
            next_state=trans_table[present_state][1];
        else
            invalid=1;
        present_state=next_state;
    }
    if(invalid==1)
    {
        printf("invalid input");
    }
    else if(present_state==final_state)
        printf("accept\n");
    else
        printf("dont accept\n");
}
```