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*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=l;*

*present\_state=next\_state;*

*}*

*if(invalid==l)*

*{*

*printf("invalid input");*

*}*

*else if(present\_state==final\_state)*

*printf("accept\n");*

*else*

*printf("dont accept\n");*

*}*

