

```

1  #include<bits/stdc++.h>
2  using namespace std;
3
4  int i=0,f=0,l;
5
6  string st;
7
8  void A() {
9      if (st[i] == 'a') {
10         i++;
11         f=1;
12     }
13     else {
14         f=0;
15         return;
16     }
17     if (i<l-1) A();
18 }
19
20 void B() {
21     if (st[i] == 'b') {
22         i++;
23         f=1;
24         return;
25     }
26     else {
27         f=0;
28         return;
29     }
30 }
31
32 void S() {
33     if (st[i] == 'b'){
34         i++;
35         f = 1;
36         return;
37     }
38     else {
39         A();
40         if (f) { B(); return;}
41     }
42 }
43
44 int main(){
45
46     freopen("il.txt","r",stdin);
47     freopen("ol.txt","w",stdout);
48
49     while(getline(cin,st)){
50
51         f = 0;
52         i = 0;
53
54         l = st.size();
55
56         S();
57
58         if(l==i && f){
59             cout<<"valid\n";
60         }
61         else{
62             cout<<"invalid\n";
63         }
64     }
65
66 }

```