#include<stdio.h>

void main(){

int state=0,i=0;

char current,input[20];

printf("Enter input string \t :");

scanf("%s",input);

while((current=input[i++])!='\0'){

switch(state)

{

case 0: if(current=='a')

state=1;

else if(current=='b')

state=3;

else

{

printf("Invalid token");

exit(0);

}

break;

case 1: if(current=='a')

state=2;

else if(current=='b')

state=3;

else

{

printf("Invalid token");

exit(0);

}

break;

case 2: if(current=='a')

state=2;

else if(current=='b')

state=3;

else

{

printf("Invalid token");

exit(0);

}

break;

case 3: if(current=='a')

state=1;

else if(current=='b')

state=4;

else

{

printf("Invalid token");

exit(0);

}

break;

case 4: if(current=='a')

state=1;

else if(current=='b')

state=4;

else

{

printf("Invalid token");

exit(0);

}

break;

}

}

if((state==2)||(state==4))

printf("\n\nString accepted\n\n");

else

printf("\n\nString not accepted\n\n");

}