1)CODE 1 IN PYTHON

import numpy as np

m=int(input())

l1=[]

l2=[]

for i in range(m):

s=int(input())

l1.clear()

for x in range(s):

l2.clear()

l2=[int(h) for h in input().split(" ")]

l1+=l2

ar=np.array(l1).reshape(s,s)

trace=np.trace(ar)

row=0

column=0

for x in range(s):

if len(list(ar[x,:])) != len(set(ar[x,:])):

row+=1

if len(list(ar[x,:])) != len(set(ar[:,x])):

column+=1

print("case #{}: {} {} {}".format(i+1,trace,row,column))

2)CODE 2 IN PYTHON

m = int(input())

for r in range(m):

h = list(input())

temp = h

result = ""

ar = []

a = 0

for i in temp:

x = int(i)

while a > x:

ar.append(")")

a -= 1

if a == 0:

while x:

ar.append("(")

x -= 1

a += 1

if a < x:

while x > a:

ar.append("(")

a += 1

ar.append(i)

while(a):

ar.append(")")

a -= 1

print("Case #" + str(r + 1) + ":", ''.join(ar))

3) CODE 3 IN PYTHON

T=int(input())

def getkey0(item):

return item[0]

def getkey2(item):

return item[2]

list1=[]

list2=[]

for i in range(T):

n=int(input())

list1.clear()

for x in range(n):

list2=[]

list2=[int(a) for a in input().split(" ")]

list2.append(x)

list1.append(list2)

list1.sort(key=getkey0)

cs=-1

js=-1

flag=True

for a in list1:

ti=a[0]

ts=a[1]

if cs==-1:

cs=ts

a.append('C')

elif ti>=cs:

cs=ts

a.append('C')

elif ti<cs and ti>=js:

js=ts

a.append('J')

elif ti<cs and ti<js:

flag=False

break

if flag==False:

str="IMPOSSIBLE"

else:

str=""

list1.sort(key=getkey2)

str=str.join([a[3] for a in list1])

print("case #{}: {}".format(i+1,str))

4)Code 4 part a IN C++

4a)#include<bits/stdc++.h>

using namespace std;

signed main()

{

ios\_base::sync\_with\_stdio(0);

cin.tie(0);

int t,b;

cin>>t>>b;

while(t--)

{

string str;

for(int i=0;i<10;i++)

{

char c;

cout<<(i+1)<<"\n";

cout.flush();

cin>>c;

str+=c;

}

cout<<str<<"\n";

cout.flush();

char a;

cin>>a;

if(a=='N' || a=='n')

break;

}

return 0;

}