CODE JAM

Solutions

**PROBLEM 1**

import numpy as np

T = int(input())

for i in range(T):

N = int(input())

Col = [[]\*3]\*3

Col = np.zeros((N,N))

R\_Rep = 0

C\_Rep = 0

for j in range(N):

S = input().split(" ")

Row = []

for k in S:

if k in Row:

R\_Rep+=1

break

Row.append(k)

for k in range(len(S)):

Col[k][j] = S[k]

for j in Col:

Row = []

for k in j:

if k in Row:

C\_Rep+=1

break

Row.append(k)

print("Case #" + str(i+1) + ":",int(Col.trace()), R\_Rep, C\_Rep)

**PROBLEM 2**

T = int(input())

for R in range(T):

SL=list(input())

Temp=SL

res = ""

Array=[]

avl = 0

for i in Temp:

x = int(i)

while avl>x:

Array.append(")")

avl-=1

if avl == 0:

while x:

Array.append("(")

x -= 1

avl+=1

if avl<x:

while x>avl:

Array.append("(")

avl+=1

Array.append(i)

while(avl):

Array.append(")")

avl-=1

print("Case #" + str(R+1) + ":",''.join(Array))

**PROBLEM 3**

T = int(input()) #Number of Test Cases

for r in range(T):

N = int(input()) #Number of Activities

Array = []

for i in range(N):

SL=input().split(" ")

data = (int(SL[0]), int(SL[1]),i)

Array.append(data)

ori=Array

Array.sort(key=lambda x: x[0])

print("Case #" + str(r+1) + ": ",end='')

J\_Array = []

C\_Array = []

Cameron = Jamie = 0

Possible = True

for i in range(len(Array)):

if Array[i][0] >= Cameron:

J\_Array.append(Array[i][2])

Cameron = Array[i][1]

else:

if Array[i][0] >= Jamie:

C\_Array.append(Array[i][2])

Jamie = Array[i][1]

else:

Possible = False

break

if not Possible:

print("IMPOSSIBLE")

else:

re = [0]\*len(Array)

for i in J\_Array:

re[i] = "J"

for i in C\_Array:

re[i]="C"

print(''.join(re))

def intrsct(a,b):

if a[0]>b[0] and a[0]<b[1]:

return True

if a[1]>b[0] and a[1]<b[1]:

return True

return False

def intrsct\_R(a,b):

return intrsct(a,b) or intrsct(b,a) or a[0] == b[0] or a[1] == b[1]