DAA ASSIGNMENT-21071A67B1

1)Given a row wise sorted matrix of size **R*C** where R and C are always **odd**, find the median of the matrix.

CODE:

```
R=int(input())
C=int(input())
m=[]
for i in range(R):
    a =[]
    for j in range(C):
        a.append(int(input()))
    m.append(a)
m.sort()
import numpy as nk
h=nk.median(m)
print(h)
```

TESTCASE 1:

```
3
3
1
3
5
2
6
9
3
6
9
5.0
```

TESTCASE2:

```
3
1
1
2
3
2.0
```

2) Given the arrival and departure times of all trains that reach a railway station, the task is to find the minimum number of platforms required for the railway station so that no train waits. We are given two arrays that represent the arrival and departure times of trains that stops.

CODE:

```
a=list(map(int,input().split()))
d=list(map(int,input().split()))
n=len(d)
a.sort()
d.sort()
pf=1
i=1
j=0
rpf=1
while i<n and j<n:
    if a[i]<=d[j]:
        pf=pf+1
        i=i+1
    else:
        pf=pf-1
        j=j+1
    rpf=max(rpf,pf)
print(rpf)
```

TESTCASE 1:

```
900 940 950 1100 1500 1800
910 1200 1120 1130 1900 2000
3
```

TESTCASE 2:

```
900 940
910 1200
1
```