

DAY 39

INTERVIEW BIT PROBLEMS :

1. Anti Diagonals

Give a $N \times N$ square matrix, return an array of its anti-diagonals. Look at the example for more details.

Example:

Input:

```
1 2 3
4 5 6
7 8 9
```

Return the following :

```
[
  [1],
  [2, 4],
  [3, 5, 7],
  [6, 8],
  [9]
]
```

Input :

```
1 2
3 4
```

Return the following :

```
[
  [1],
  [2, 3],
  [4]
]
```

CODE :

PYTHON

class Solution:

 # @param A : list of list of integers

 # @return a list of list of integers

 def diagonal(self, A):

 r=len(A)

 c=len(A[0])

```

out=[]
for l in range(1,(r+c)):
    col1=max(0,l-r)
    count=min(l,c-col1,r)
    temp=[]
    for j in range(0,count):
        temp.append(A[min(r,l)-j-1][col1+j])
    temp.reverse()
    out.append(temp)
return out

```

(OR)

class Solution:

@param a : list of list of integers

@return a list of list of integers

def diagonal(self, a):

B = [[] for i in range(len(a)*2-1)]

for i in range(len(a)):

for j in range(len(a)):

B[i+j].append(a[i][j])

return B