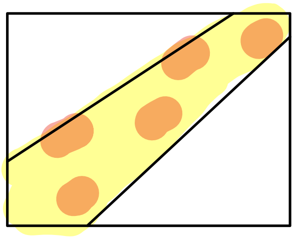
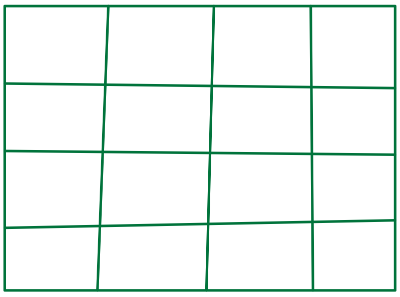


Neck of giraffe

2D Arrays

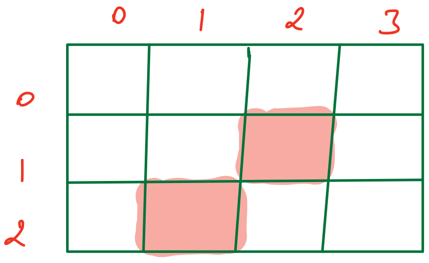
	Delhi	Mumbai	Chennai	Ranchi
Delhi	0	3000	-	-
Mumbai	3000	0	-	-
Chennai	5000	2000	0	-
Ranchi	4000	4000	.	0

2D Array



An array of arrays

```
int mat[][] = new int[rows][cols];
```

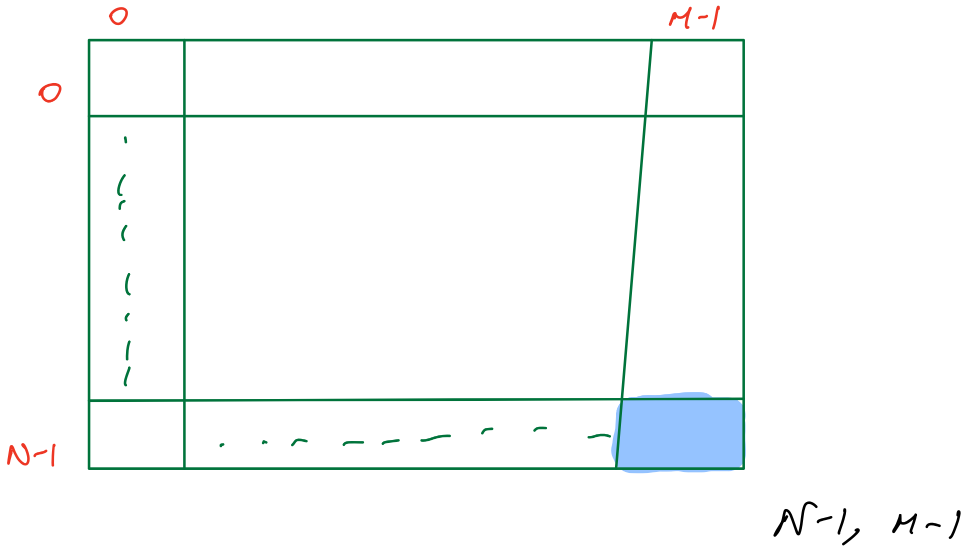


int mat[][] = new int[3][4]

mat[1][2]

mat[2][1]

Total elements = 3 x 4 = 12



N rows

M cols

Total cells ⇒ n x m

// Q1 : Print all elements of the 1st row of a matrix

N → rows

M → cols

[0][0] [0][1] [0][2] ..... [0][m-2] [0][m-1]

```
for( int col= 0; col < M; col++){
```

```
            SOP( mat[0][ col])
    }
```

// Q2 : Print all elements of the 1st col of a matrix

N → rows

M → cols

```
[0] [0]
[1] [0]
[2] [0]
   :
[N -2][0]
[N-1] [0]
```

```
for( int row=0; row<N; row++){
        SOP( mat[row][0]);
}
```

// Q3 : Given a matrix, print it row - row

1	2	3	4
5	6	7	8
9	10	11	12

⇒

```
1   2   3   4  ↵
5   6   7   8  ↵
9   10  11  12 ↵
```

Rows ⇒ N

Cols ⇒ M

```
for( int row= 0; row < N; row++){
    for(int col=0; col< M; col++){
            SOP( mat[row][col]);
    }
    SOPln();
}
```

// Q4 : Given a matrix, print it col-col

1	2	3	4
5	6	7	8
9	10	11	12

⇒

```
 1  5  9  ↵
 2  6  10 ↵
 3  7  11 ↵
 4  8  12 ↵
```

Rows ⇒ N

Cols ⇒ M

```
for( int col=0; col<M; col++){
    for( int row=0; row<N; row++){
        SOP( mat[row][col] );
    }
    SOPln();
}
```

Break : 10:05 pm

Code : https://www.interviewbit.com/snippet/5dd113034902a67f1f89/