

## Multidimensional Arrays

- Transpose of Matrix
- Transpose of square matrix of size  $N \times N$ .
- $N \rightarrow$  Number of Row and column
- changing rows to columns and columns to rows.

`int x [ 3 ] [ 3 ]`

1	1	1
2	2	2
3	3	3

Hello world

## Multidimensional Arrays

`int x [ 3 ] [ 3 ]`

1	1	1
2	2	2
3	3	3

**R -> C**  
**C -> R**

`int x [ 3 ] [ 3 ]`

1	2	3
1	2	3
1	2	3

1	1	1
2	2	2
3	3	3

	Column 1	Column 2	Column 3
Row 1	<code>x[0][0]</code>	<code>x[0][1]</code>	<code>x[0][2]</code>
Row 2	<code>x[1][0]</code>	<code>x[1][1]</code>	<code>x[1][2]</code>
Row 3	<code>x[2][0]</code>	<code>x[2][1]</code>	<code>x[2][2]</code>

Hello world

## Multidimensional Arrays

`int x [ 3 ] [ 3 ]`

1	1	1
2	2	2
3	3	3

**R -> C**  
**C -> R**

`int x [ 3 ] [ 3 ]`

1	2	3
1	2	3
1	2	3

**Row 0**

1	1	1
2	2	2
3	3	3

**J = 0**

Hello world

## Multidimensional Arrays

`int x [ 3 ] [ 3 ]`

1	1	1
2	2	2
3	3	3

**R -> C**  
**C -> R**

`int x [ 3 ] [ 3 ]`

1	2	3
1	2	3
1	2	3

**Row 1**

1	1	1
2	2	2
3	3	3

**J = 0**

**J = 0   J = 1**

Hello world

## Multidimensional Arrays

`int x [ 3 ] [ 3 ]`

1	1	1
2	2	2
3	3	3

**R -> C**  
**C -> R**

`int x [ 3 ] [ 3 ]`

1	2	3
1	2	3
1	2	3

**Row 2** →

1	1	1
2	2	2
3	3	3

**J = 0**

**J = 0   J = 1**

**J = 0   J = 1   J = 2**

Hello world