

## 17\_08-2D array - 1

Wednesday, 17 August 2022 8:11 PM

$\left\{ \begin{array}{l} 2D-1 \\ 2D-2 \end{array} \right\}$   
 10 Advanced JS-1  
 Advanced JS-2  
 -3

$\left. \begin{array}{l} \text{Advanced JS-1} \\ \text{Advanced JS-2} \\ -3 \end{array} \right\} \text{IIFE}$

2D array

emp = ["Sudhangshu", "Priya", "Rahul"]

Q =

10	20	30	40
50	60	70	80
90	100	110	120

} Print this in wave form.

O/P:- 10 50 90 100 60 20 30 70  
110 120 80 40

	Col0	Col1	Col2	Col3
row 0	10	20	30	40
row 1	50	60	70	80
row 2	90	100	110	120

whenever col  $\rightarrow$  even we are moving down  
col  $\rightarrow$  odd we are moving up

Q Transpose Matrix  $\Rightarrow$  exchange row  $\rightarrow$  col

$\begin{bmatrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 10 & 11 & 12 \end{bmatrix} \xrightarrow{\text{Transpose}} \begin{bmatrix} 1 & 5 & 9 \\ 2 & 6 & 10 \\ 3 & 7 & 11 \\ 4 & 8 & 12 \end{bmatrix}$

Input:  $3 \times 4$  matrix (m x n)  
 Output:  $4 \times 3$  matrix (n x m)

$OP[i][j] = arr[j][i]$   
 $OP[i][j] = arr[j][i]$

$A = \begin{bmatrix} 1 & 1 \\ 2 & 2 \\ 3 & 3 \end{bmatrix}$  (3 x 2)  
 $1 \times 1 + 1 \times 3$   
 $1 + 3$   
 $A \times 3$

$B = \begin{bmatrix} 1 & 1 & 1 \\ 2 & 2 & 2 \end{bmatrix}$  (2 x 3)  
 Multiplication  
 $3 \times 2$

↓  
9

3	3	3
6	6	6
9	9	9

3 x 3