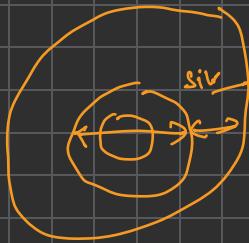




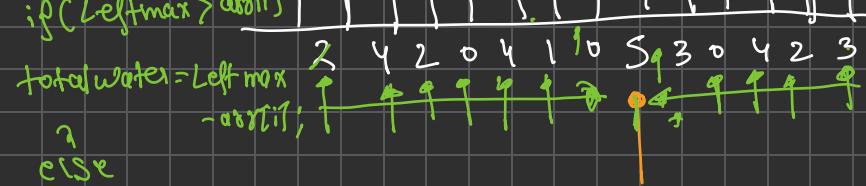


✓x



SiV

~~O(n^2)~~  $O(n)$  total water = 2 + 6 + 13 + 18 + 9  
~~single pass~~  
 Left max = 24  
 Left side check  
 if (Leftmax > arr[i])



else

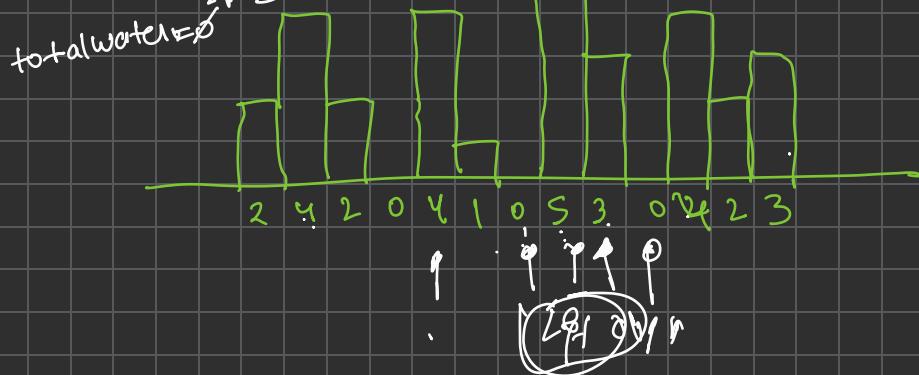
$\{$  Left Max = arr[i];  
 left f();

$\min(\text{Leftmax}, \text{Rightmax}) - arr[i]$

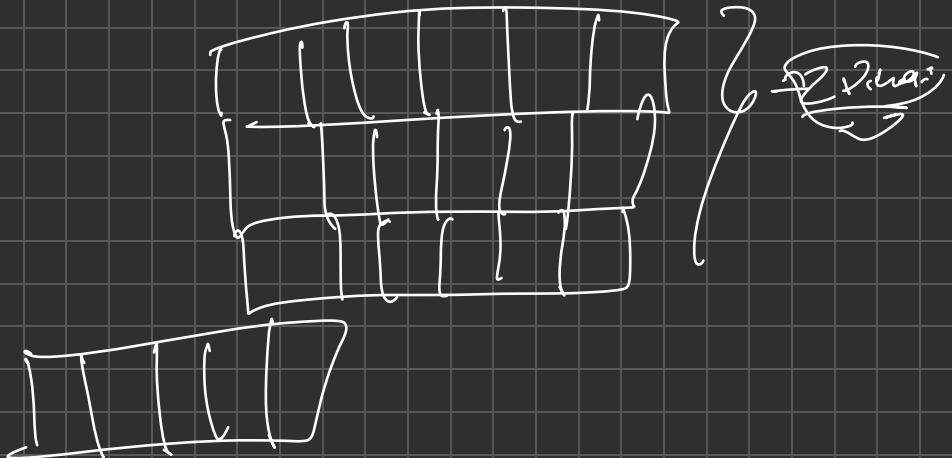
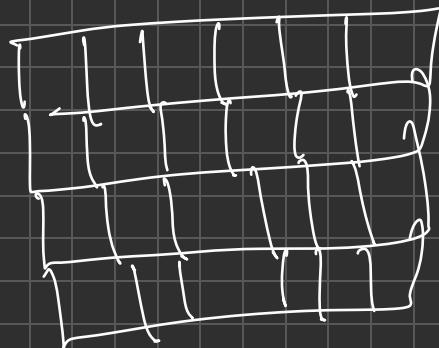
$\min(\text{Leftmax}, \text{Rightmax})$   
 $- arr[i]$

Leftmax = 624  
 127101819  
 ↓  
 maximum  
 Leftmax

solve  
 Rightmax = 34



2d array ← 2 dimensional array



	y			
	0	1	2	3
0	1	2	3	4
1	5	6	7	8
2	9	10	11	12

Brack  
in column

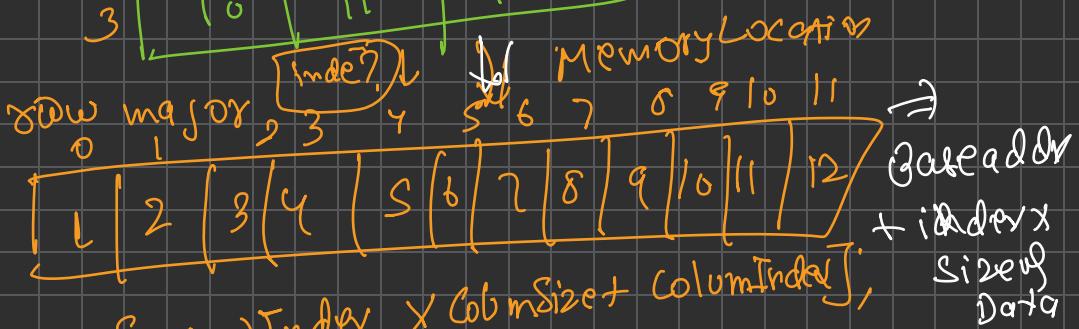
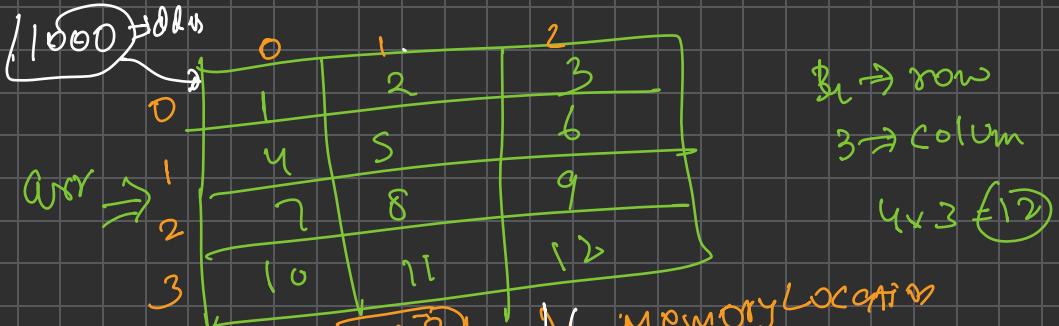
arr [1][2]  
(7)

int arr[3][4] = { {1, 2, 3, 4}, {5, 6, 7, 8}, {9, 10, 11, 12} };  
point ≠ value kaare karo sakte hu;

```

for (i=0 ; i < 3 ; i++)
{
    for (j = 0 ; j < 4 ; j++)
        cout << arr[i][j];
}

```



$$\text{index} \Rightarrow \{ \text{rowIndex} \times \text{ColSize} + \text{ColumnIndex} \}, \quad \text{size of data}$$

$$2 \times 3 + 1 = 7^{\text{th}}$$

$$\text{address} = \text{Base Address} + (\text{ }) * \text{size of data}$$

$$= 1000 + 40$$

$$= \boxed{1040}$$

rowColumn

	0	1	2	
0	1	2	3	
1	4	5	6	
2	7	8	9	
3	10	11	12	
row	0	1	2	3
column	0	1	2	3

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

indeed  $\Rightarrow [ColumnIndex * RowSize + RowIndex]$ ,

Column  $\rightarrow$  ~~2x4~~  $\rightarrow$  ~~2x1~~  $\rightarrow$  transpose

row

	0	1	2	3	
0	1	2	3	4	
1	5	6	7	8	
2	9	10	11	12	
3	13	14	15	16	
row	0	1	2	3	
column	0	1	2	3	

	0	1	2	3	
0	1	5	9	13	
1	2	6	10	14	
2	3	7	11	15	
3	9	8	12	16	
row	0	1	2	3	
column	0	1	2	3	