05 2D Array

14:08

Agenda :

1. Introduction
2. Problems

1. INTRODUCTION

- Store similar types of elements.
- Sequential storage Elements
- Both Length and Breadth.

Real Time Application

- Chess
- Bus
- Egg Tray
- Tic tac toe

Syntax :

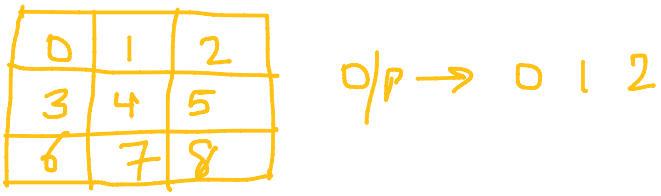
Int mat[][] = new int[row][column];

Ex : int mat[][] = new int[3][3];

Col	0	1	2	3
Row: 0	mat[0][0]	mat[0][1]	mat[0][2]	mat[0][3]
1	mat[1][0]	mat[1][1]	mat[1][2]	mat[1][3]
2	mat[2][0]	mat[2][1]	mat[2][2]	mat[2][3]

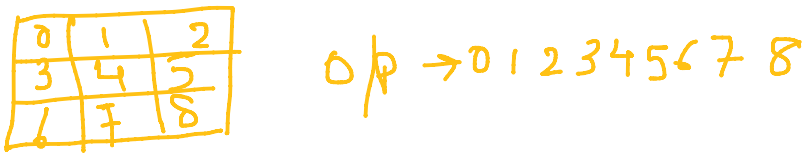
2. Problems

Q1. Print top row of matrix

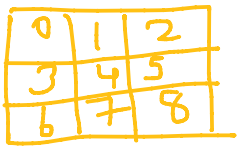


Q2. Print leftmost column of matrix.

Q3. Print matrix row by row.

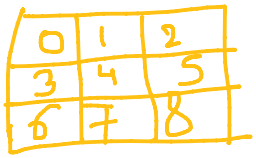


Q4. Print matrix column by column



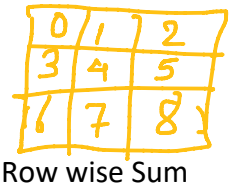
o/p → 0 3 6 1 4 7 2 5 8

Q5. Calculate sum of all elements of matrix.



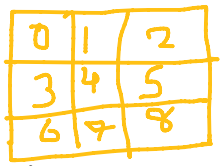
o/p → 36

Q6. print matrix in waveform.



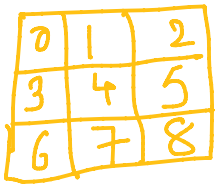
o/p → 0 1 2 5 4 3 6 7 8

Q7. Row wise Sum



o/p → [3, 12, 21]

Q8. Column wise max



[6, 7, 8]