C++ Programming

Multidimensional Arrays

Homework 1

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Teaching, Training and Coaching since more than a decade!

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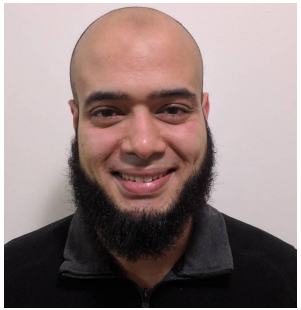


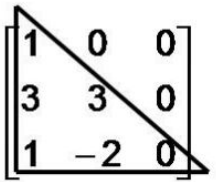
Problem #1: Smaller row?

- Read integers N, M, then Read **matrix** NxM. Then read Q for Q queries.
- Each query is 2 integers: first and 2nd row indices (1-based)
- Compare the 2 rows and print **YES** if first row < 2nd for **all the row values**
- Input ⇒ Output
  - 3 4
  - 8 16 9 52
  - 3 15 27 6
  - 14 25 29 10
  - 3
  - 1 2 ⇒ NO
  - 2 3 ⇒ YES
  - 1 3 ⇒ NO

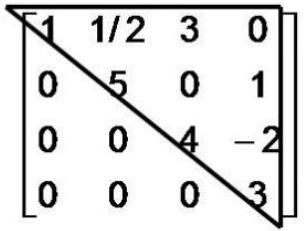
Problem #2: Triangular matrix

- Read integer N, then Read **Square** matrix NxN. Then, print 2 values. The sum of the **lower** triangle matrix and the **upper** triangle.
- Input
  - 3
  - 8 16 9
  - 3 15 27
  - 14 25 29
- Output
  - 94 (8+15+29+3+25+14)
  - 104 (8+15+29+16+27+9)

Lower triangular matrix

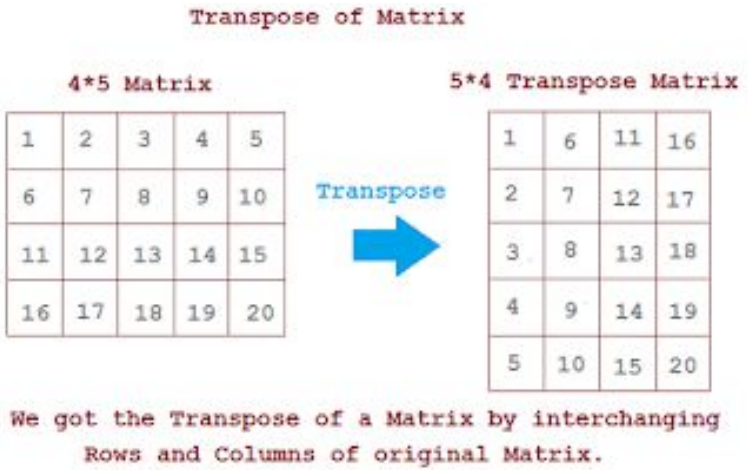


Upper triangular matrix



Problem #3: Transpose

- Read integers N, M, then Read **matrix** NxM. Compute another array, the transpose
- Input/output as in image



"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."