Question6 (Matrix Multiplication)

MATRIX MULTIPLICATION.

zip index (Row)

⇒ FlatMap.
(row, col, val)

MATRIX A

1.
2.
⋮
N

↑
Zip With Index
↓

MATRIX B

1.
2.
3.
⋮
M

For Matrix A:
Map: $(col, (row, val))$

For Matrix B:
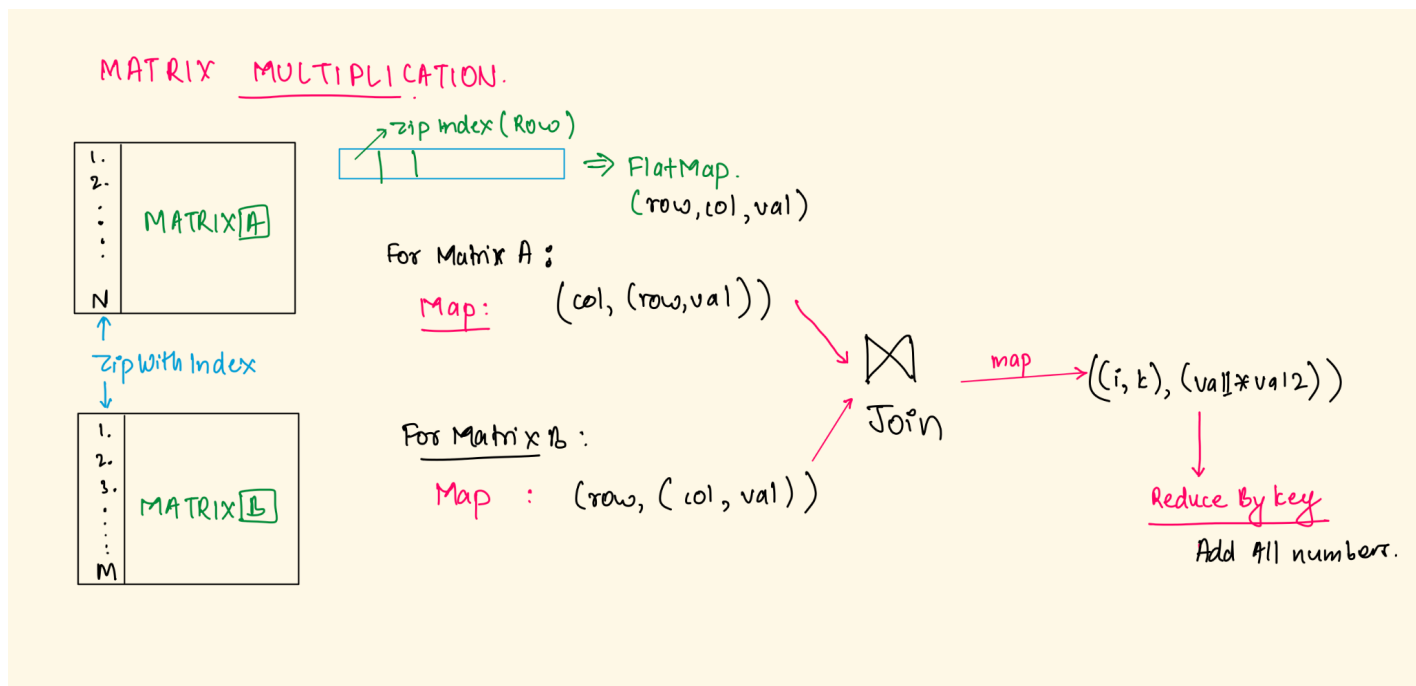Map: $(row, (col, val))$

⋈ Join

map → $((i, k), (val1 * val2))$

Reduce By key

Add All number.

Output:

The output obtained from this file is in the CoordinateMatrix form of (row, col, value) where,

    row: row index of the resultant matrix(0-indexed)

    col: col index of resultant matrix(0-indexed)

    val: result of matrix-multiplication.