**CS 249**

**Project #3**

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Code Execution

Contained in the zip are Matrix.src, MatrixApp.src and Node.src (I failed to finish the two recursive parts of the project; B and C). Run the MatrixApp.src and then you can follow the instructions to create a matrix and use the manipulation methods in Matrix.src. Node.src is the makeup of a nodes used in the Matrix class.

Efficiency

Class: Matrix.java

Matrix(int h, int w) //height and width

This method uses two for loops to create nodes in the matrix. The efficiency hit for a loop inside a loop is O(n^2), otherwise the comparisons are probably negligible.

insertMatrix(int x, int column, int row)

This method also uses two for loops to search for a specific coordinate, costing it O(n^2).

displayMatrix()

This method uses two for loops to display each node of the matrix. O(n^2).

sumMatrix() and fillMatrix() are also O(n^2), for the double for loops.

Class: Node.java  
displayNode()

One line, O(1).

I did not collaborate.