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Problem Description

Write a program that will add two matrices together. The program will read the matrices out of a file and then the main program will split the matrices into four subsets. Each subset is put into a thread to be calculated, and then the main method will put all the results together and output the result in a rectangular grid format.

Major Program Components (Classes, Objects, and Methods)

Class: MatrixThread (main)

Class: ThreadOperation

Object: subOne

Object: subTwo

Object: subThree

Object: subFour

Constructor: ThreadOperation (int[][] AMatrix, int[][] BMatrix)

Method: public void run()

UML Diagram

A picture containing table

Description automatically generated

Control Flow (Flow Chart)

Diagram

Description automatically generated

User Execution

The user runs the program with the name of the file with the matrices in it in the command line and is then shown the result of the matrix addition.