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MatrixThread.java

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/*****
/
/   filename:  MatrixThread.java
/
/   description:  This is the thread that does the calculations for the
/                 individual places of the product matrix.
/
/   author:  Paladino, Zac
/   login id: cps346-n1.16
/
/   class:  CPS 346
/   instructor:  Perugini
/   assignment:  PJ #3
/
/   assigned:  March 11, 2009
/   due:  April 15, 2009
/
/*****/
class MatrixThread implements Runnable{

    int row, column, id, size;
    double matrixA[][];
    double matrixB[][];
    double matrixP[][];
    Barrier wall;

    MatrixThread (int r, int c, int s, int si, double matrixa[][],
                  double matrixb[][], double matrixp[][], Barrier w){
        this.row = r;
        this.column = c;
        this.id = s;
        this.size = si;
        this.matrixA=matrixa;
        this.matrixB=matrixb;
        this.matrixP=matrixp;
        this.wall = w;
    }

    public void run(){
        double sum = 0.0;
        for(int i=0; i<3; i++){
            sum += (matrixA[row][i]*matrixB[i][column]);
        }
        matrixP[row][column] = sum;
        wall.waitForOthers();

        if(id == (size-1)){
            for(int i=0; i<2; i++){
                for(int k=0; k<2; k++){
                    System.out.print( matrixP[i][k] + " ");
                }
                System.out.println();
            }
        }
    }
}

```