**Black White Grid**

import java.util.\*;

/\*\*

\* Write a description of class Grif here.

\*

\* @author (your name)

\* @version (a version number or a date)

\*/

public class Grid

{

private boolean[][] grid;

public Grid(boolean[][] grid)

{

this.grid = grid;

}

public void alter(int row, int col)

{

//Checks for bounds and if the location is black

if ((row >= 0 && row < grid.length) && (col >= 0 && col < grid[row].length) && !(grid[row][col] == false))

{

grid[row][col] = false;

alter(row, col - 1); // left

alter(row - 1, col); // up

alter(row, col + 1); // right

alter(row + 1, col); // down

}

}

public int countComponent(int row, int col)

{

if (col == grid[0].length)

{

col = 0;

row++;

}

if (row >= grid.length)

{

return 0;

}

if (grid[row][col])

{

alter(row, col);

return 1 + countComponent(row, col + 1);

}

else

{

return 0 + countComponent(row, col + 1);

}

}

public String toString()

{

String g = "";

for (int i = 0; i < grid.length; i++)

{

g += "[" + grid[i][0];

for (int j = 1; j < grid[0].length; j++)

{

g += ", " + grid[i][j];

}

g += "]";

System.out.println();

}

return g;

}

}

**Client**

import java.util.\*;

//Client credit goes to Hugo - appreciate it man

//really saved me from writing all the false and trues

public class GridClient {

public static void main(String[] args) {

boolean[][] image1 = { {false,false,false,false,false,false,false,false,false},

{false,true, true, true, true, true, true, true, false},

{false,true, false,false,false,false,false,false,false},

{false,true, false,true, false,true, false,true, true},

{false,true, false,true, false,false,false,false,true},

{false,true, false,true, true, true, true, false,false},

{false,true, false,false,false,false,true, false,false},

{false,true, true, true, true, false,true, true, true},

{false,false,false,false,false,false,true, false,false}};

boolean[][] image2 = { {true,true,false,false,false,false,false,false,false},

{false,true, true, true, true, true, true, true, false},

{false,true, false,false,false,false,false,false,false},

{false,true, false,true, false,true, false,true, true},

{false,true, false,true, false,false,false,false,true},

{false,true, false,true, true, true, true, false,false},

{false,true, false,false,false,false,true, false,false},

{false,true, true, true, true, false,true, true, true},

{false,false,false,false,false,false,true, false,false}};

Grid grid1 = new Grid(image1);

Grid grid2 = new Grid(image2);

System.out.println("Before");

System.out.println(grid1);

grid1.alter(5,1);

System.out.println("After alter(row=5,col=1)");

System.out.println(grid1);

System.out.println("grid2");

System.out.println(grid2);

System.out.println("There is "+grid2.countComponent(0,0)+" cells in g2");

}

}