

**Lab Goal :** This lab was designed to teach you more object oriented programming and how to write a very simple game.

**Lab Description :** Complete the code for the Grid class located in Grid.java. Test Grid using the GridTester.java file. Grid will store Cell references. Cell is an abstract class used to make ColoredCells and Pieces that can be used to write Games and Graphical projects.

```
public class Grid
{
    private Cell[][] grid;

    public Grid()
    {
        setSize(0,0);
    }

    public Grid(int rows, int cols)
    {
    }

    public void setSize(int rows, int cols)
    {
    }

    public void setSpot(int row,int col, Cell val){
    }

    public Cell getSpot(int row, int col){
        return grid[row][col];
    }

    public int getNumRows() {
        return 0;
    }

    public int getNumCols(){
        return 0;
    }

    public boolean drawGrid(Graphics window){
        boolean full=true;

        //for loop for row
        for(int r=0;r<grid.length;r++)
        {
            //for loop for col
            for(int c=0;c<grid[r].length;c++)
            {

                //get current Cell

                //if it is not null
                //draw it

                //if it is null mark full as false
            }
        }
        return full;
    }

    //toString
}
```

### Sample Output ( GridTester.java )

```
2
2
3 3 5 5 false java.awt.Color[r=0,g=0,b=255] null
null null

3 3 5 5 false java.awt.Color[r=0,g=0,b=255] null
null 100 100 4 4 true java.awt.Color[r=0,g=0,b=255]

3 3 5 5 false java.awt.Color[r=0,g=0,b=255] null
null 200 200 20 20 false java.awt.Color[r=255,g=0,b=0]

null
```

### Files Needed ::

**Locatable.java**  
**Cell.java**  
**ColoredCell.java**  
**Grid.java**  
**GridTester.java**