

# GridWorld Part 1 Lab 3 Extensions

Monday, August 27, 2012  
10:17 AM

Once you have completed GW: Part 1 Lab 3, try some of these extensions

**Extension 1:** Comments: There are three types of comments:

// creates a single line of comments

/\* will create a comment that spans many lines

\* you will often see these are the start of the program or parts of the program.

\*/

/\*\*

\*This type of comment is used to generate "javadoc" comments. They

\* generate web pages. We will look more at these later in the semester.

\*/

Modify your code by removing unnecessary comments and adding more appropriate comments.

- Add a comment for your name, and the date
- The top comments describe what the first BugRunner project is about. Alter these to reflect what this project does.
- Add one line comments throughout the main to make your code more organized by separating the code that creates each bug or rock.

**Extension 2:** Add code to BugRunner3 that will allow the user to enter 3 more integers between 0 - 255 for the amounts of red, green and blue in a color. Create that color by using the following model:

Color myColor = new Color (red, green, blue);

- Use an appropriate and descriptive name for the Color identifier.
- Add the following to the import line:  
import java.awt.Color;
- To change the Color of a Bug, use the Bug constructor that takes in a parameter  
new Bug (myColor)

**Extension 3:** Modify your prompt for input to include the parameters of the grid, so that we avoid going out of bounds.

For example: Rather than stating "Enter the row value" you would say,  
"Enter a value for the row between 0 and number of rows - 1."

Look at the Quick Reference, can you find a method that we could use to get the number of rows and the number of columns in the Grid?

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In order to use this method, you need to have an object of the Grid class.

- Add the following two imports to the top.  
`import info.gridworld.grid.Grid;`  
`import info.gridworld.actor.Actor;`
- The ActorWorld class has a `getGrid` method that will return the Grid.  
`Grid<Actor> gr = world.getGrid();`
- Add a variable to hold the number of rows and number of columns.
- Use the method to assign these variables to the number of rows and columns in the Grid.
- Use this variable in your prompt.