

Tips of Eclipse

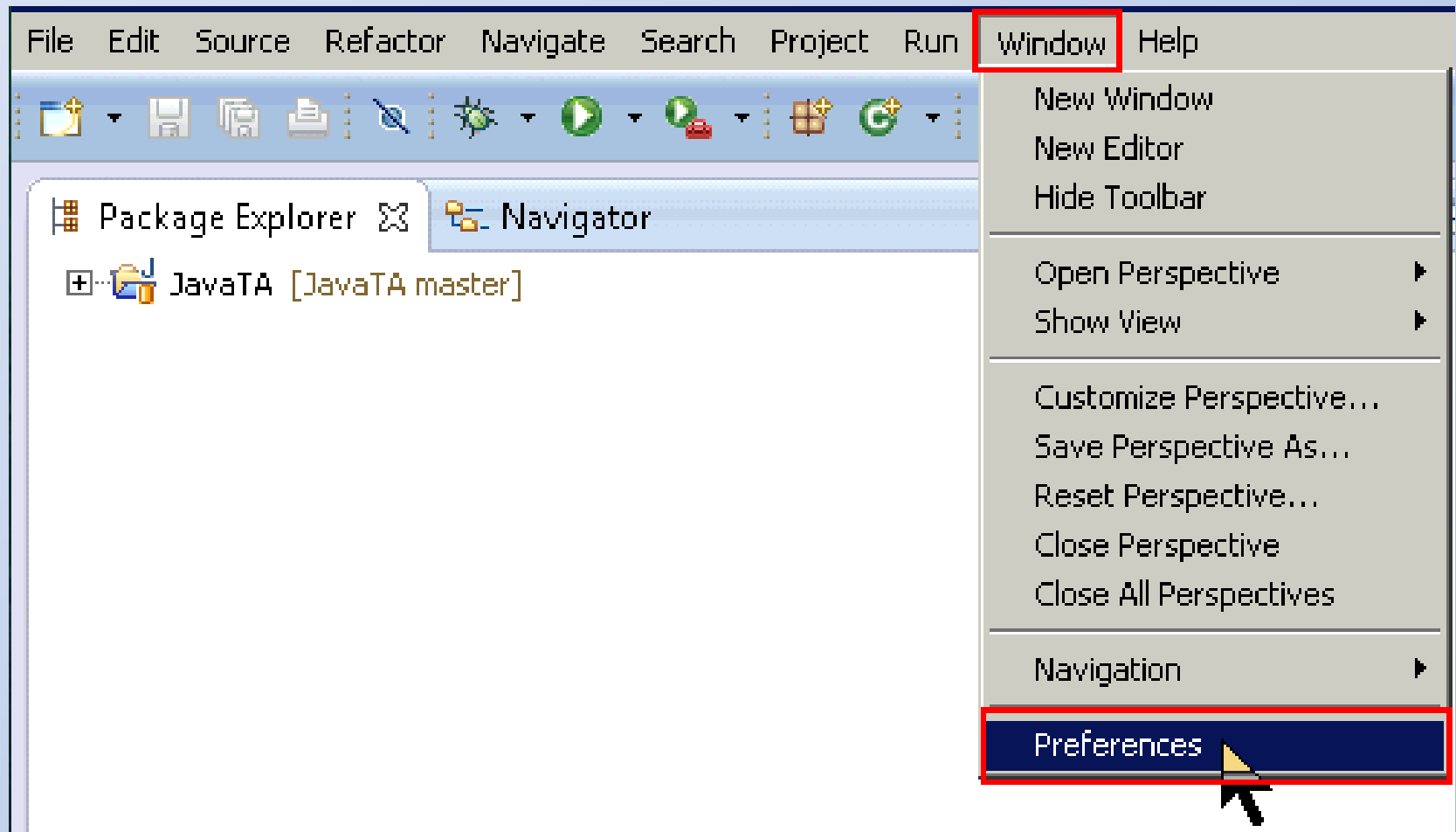
TA: Jimin Hsieh

Agenda

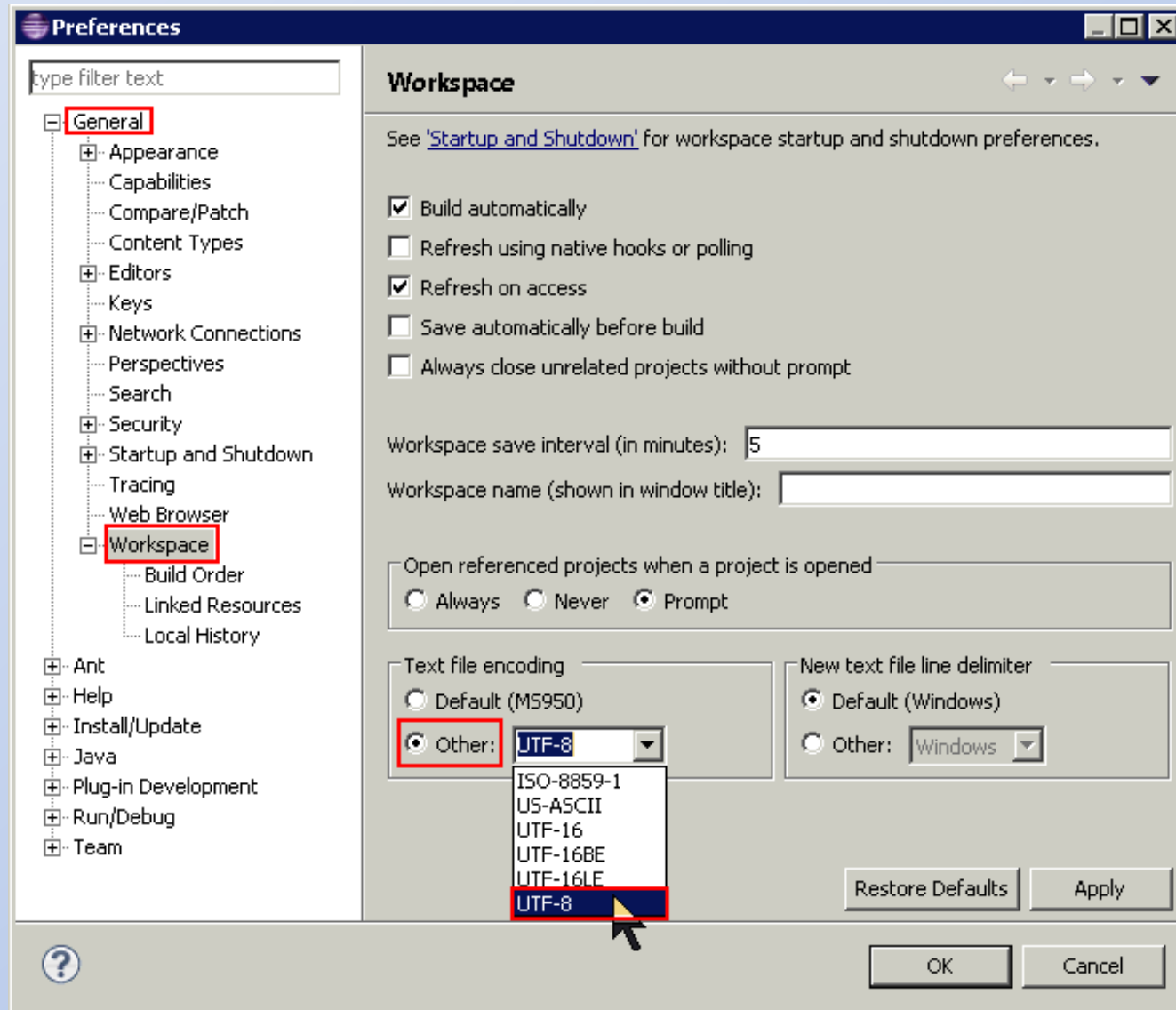
- Text file encoding
- Change Background Color
- Line Number
- Refactor
- Debugging

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Text file encoding



Text file encoding



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Change Background Color

Before

```
+import java.util.Iterator;

public class Dequeue<Item> implements Iterable<Item> {
    private int N;
    private Node first;
    private Node end;

    // circular linked list class
    private class Node {
        private Item item;
        private Node next;
        private Node previous;
    }

    public Dequeue() {
        // construct an empty deque
        first = null;
        N = 0;
        assert check();
    }

    public boolean isEmpty() {
        // is the deque empty?
        return size() == 0;
    }
}
```

After

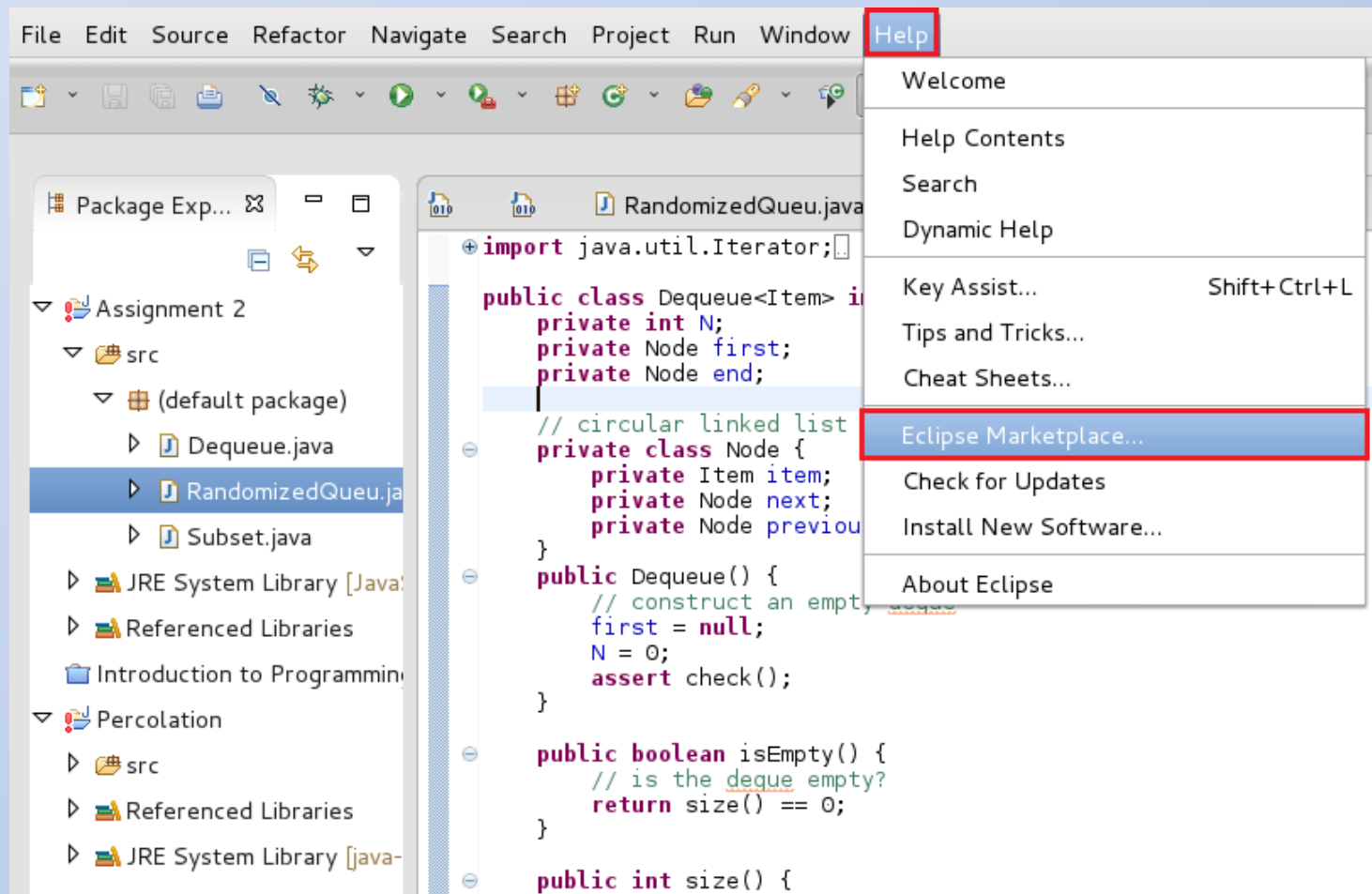
```
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```

- For Newest Eclipse (4.3)



Eclipse Marketplace

Eclipse Marketplace


Select solutions to install. Press Finish to proceed with installation.
Press the information button to see a detailed overview and a link to more information.

Search Recent Popular Installed January 01/14

Find: theme All Markets All Categories Go


theme e4 customize background color color

★ 108 Installs: 58.0K (4,522 last month) Install

 eTheme is a eclipse plugin for change style in linux. Convenient, fast, does not affect other applications Style.Select linux theme, restart and run eclipse.sh.
[more info](#)

by www.bsdn.org, EPL
eTheme 0.1.1 Etheme





★ 3 Installs: 0 (0 last month) [Learn more](#)

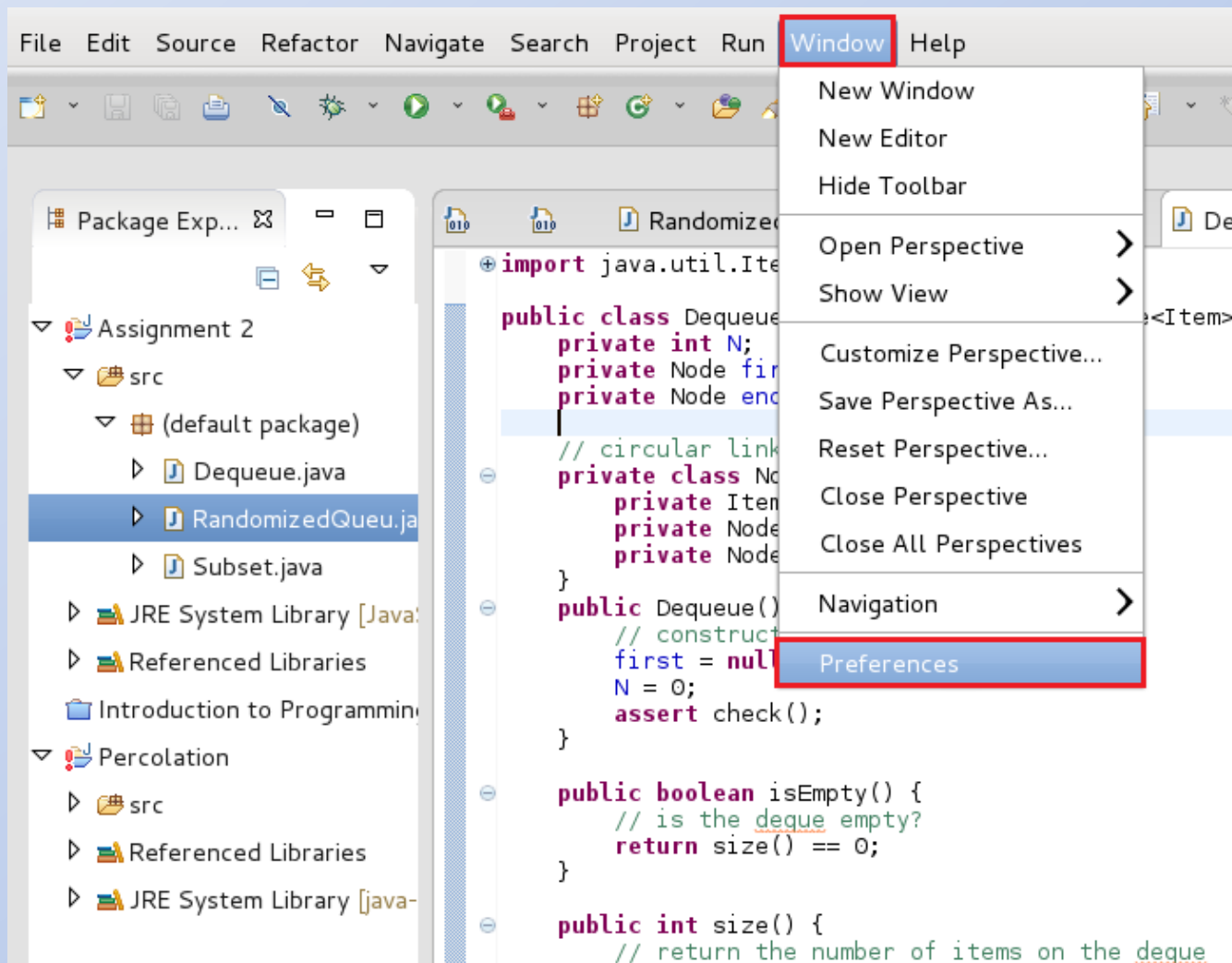
 Eclipse Color Theme makes it possible to switch color themes conveniently and without side effects. After the installation, go to... [more info](#)

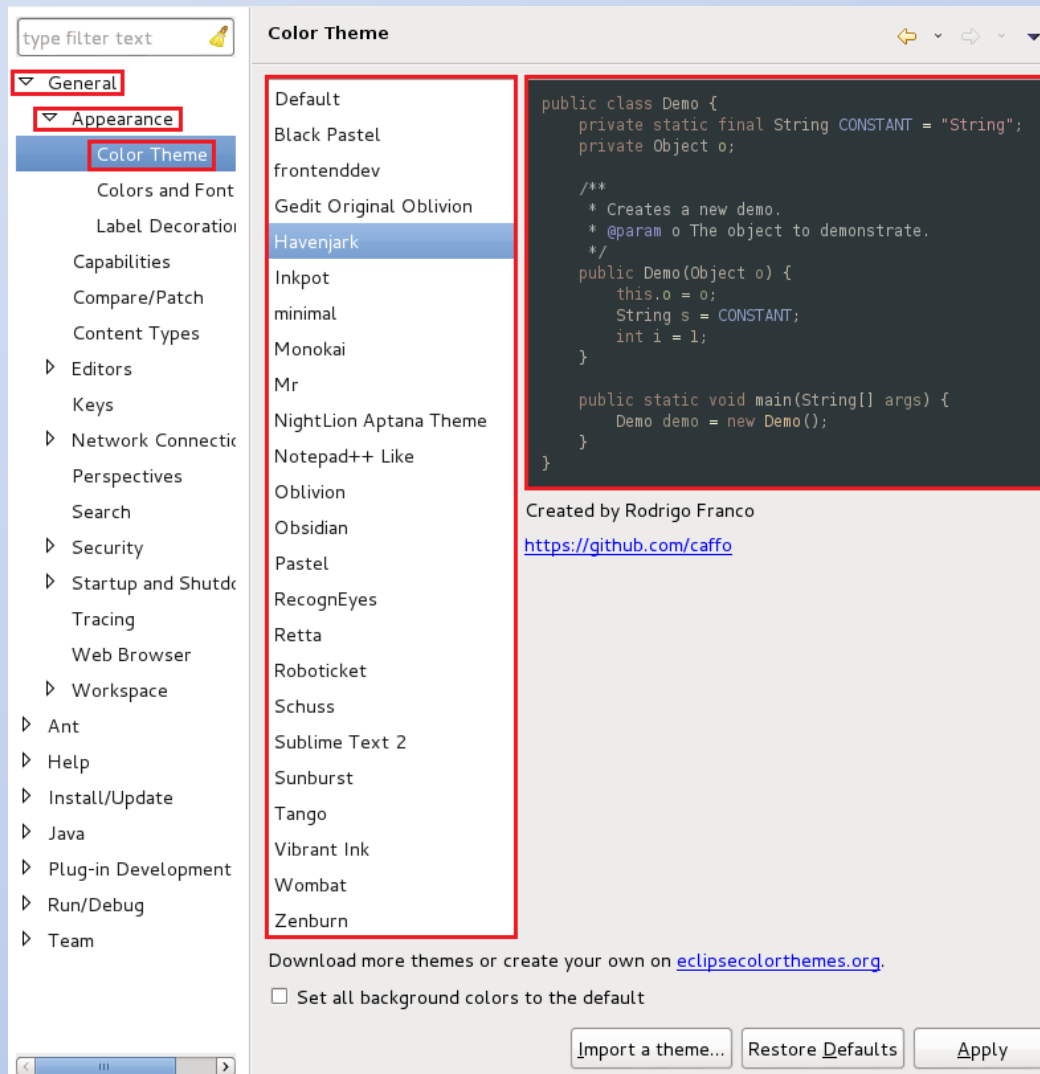
by Felix H. Dahlke and Roger Dudler, EPL
theme editor color aa themes

★ 258 Installs: 344K (16,745 last month) Update Uninstall

Marketplaces

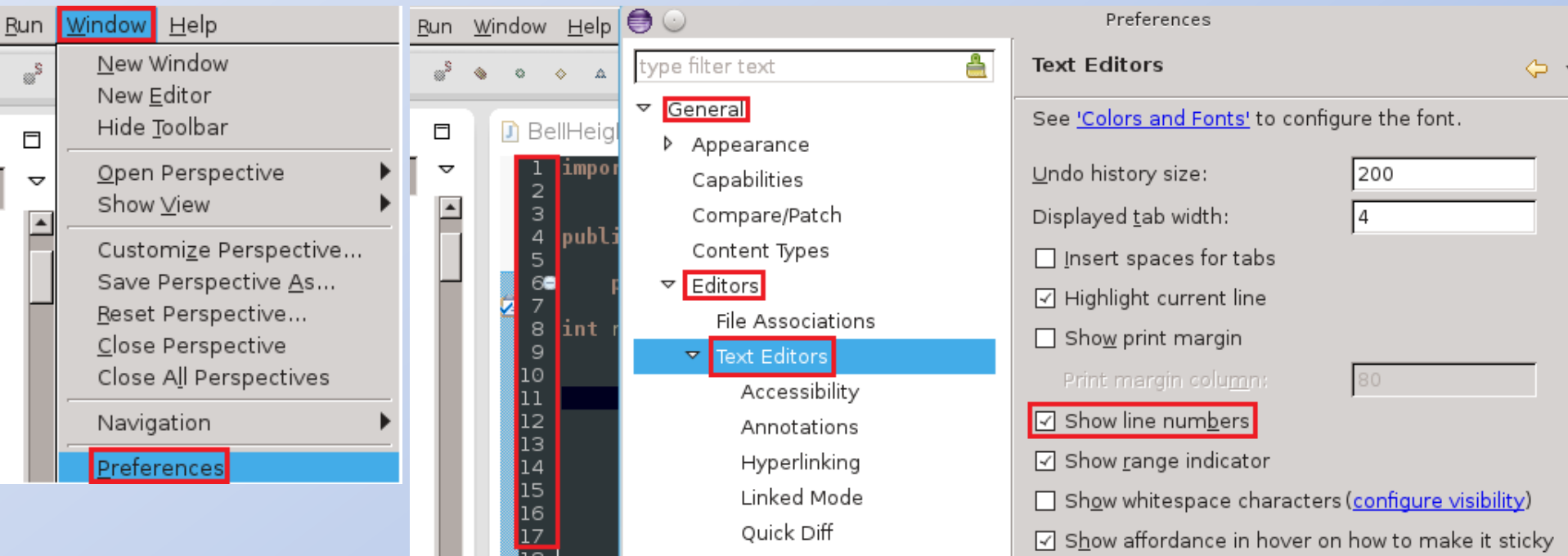






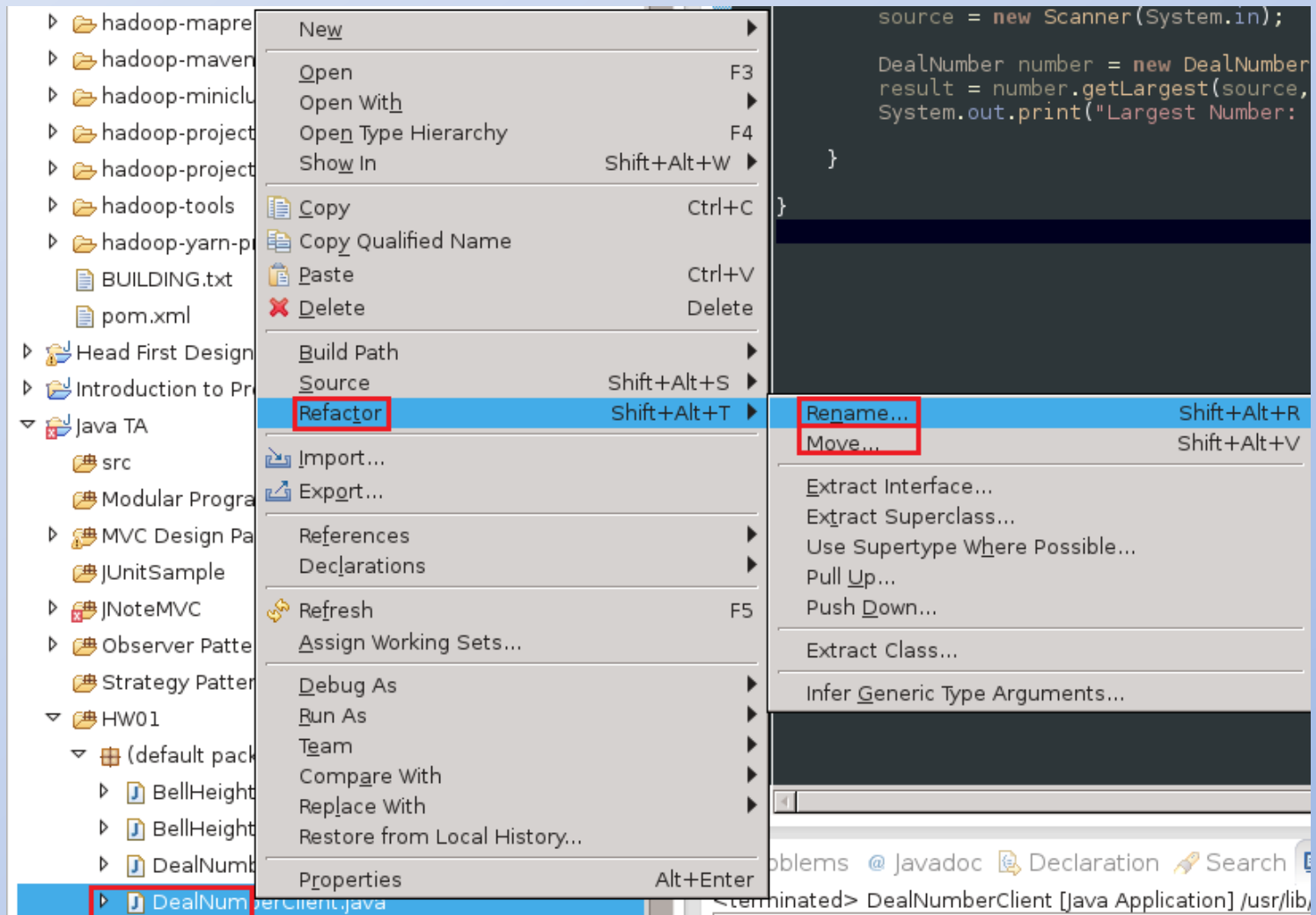
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Line Number



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Refactor



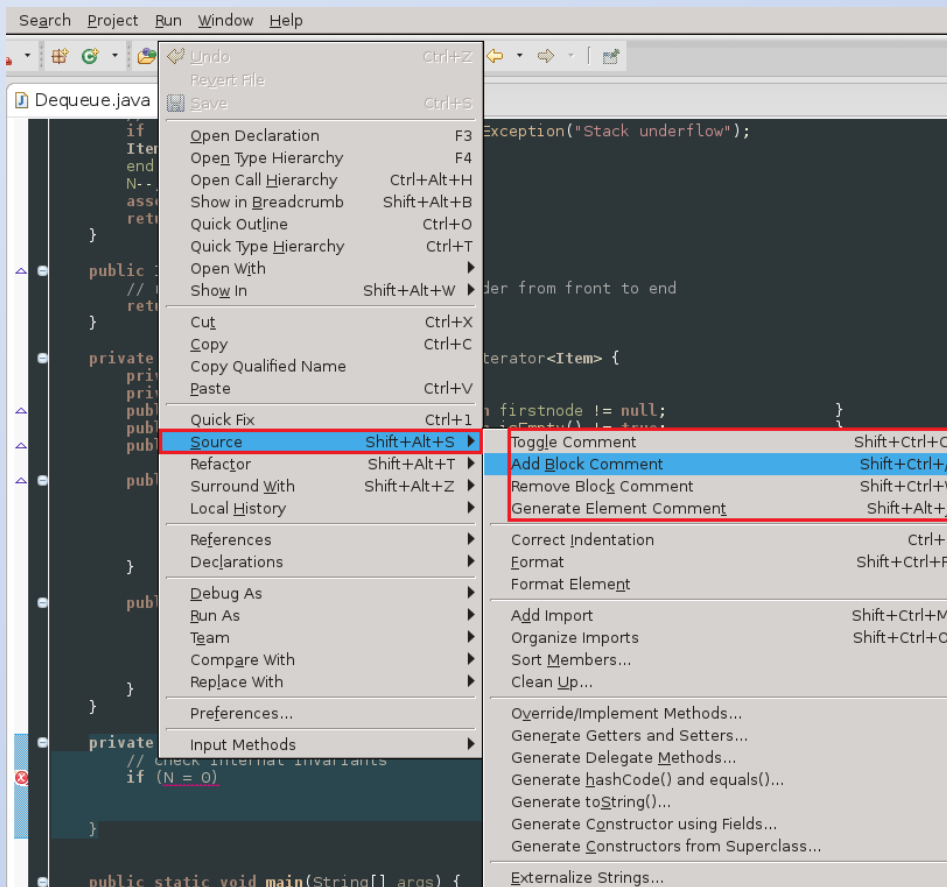
Refactor

- What is refactor?
- You can't find this word in any dictionary!
- It's a verb.
- Definition: Refactoring is the process of changing a software system in such a way that it does not alter the external behavior of the code yet improves its internal structure.

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Comment

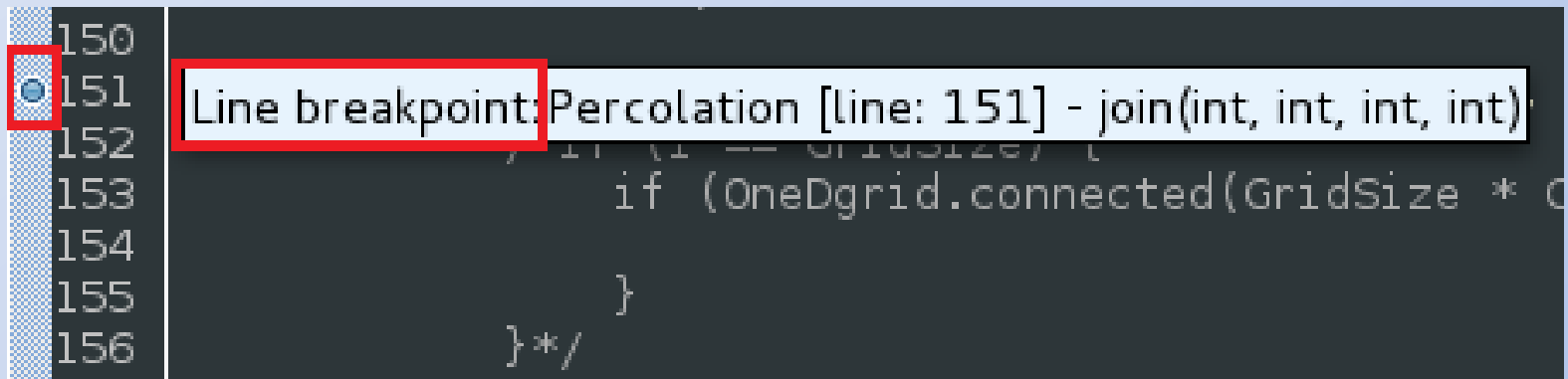
1. Select which part of code you want to Comment
2. Right-Click
3. Source -> (Toggle/Add Block/Remove/Generate Element) Comment



Enable Debugging Feature

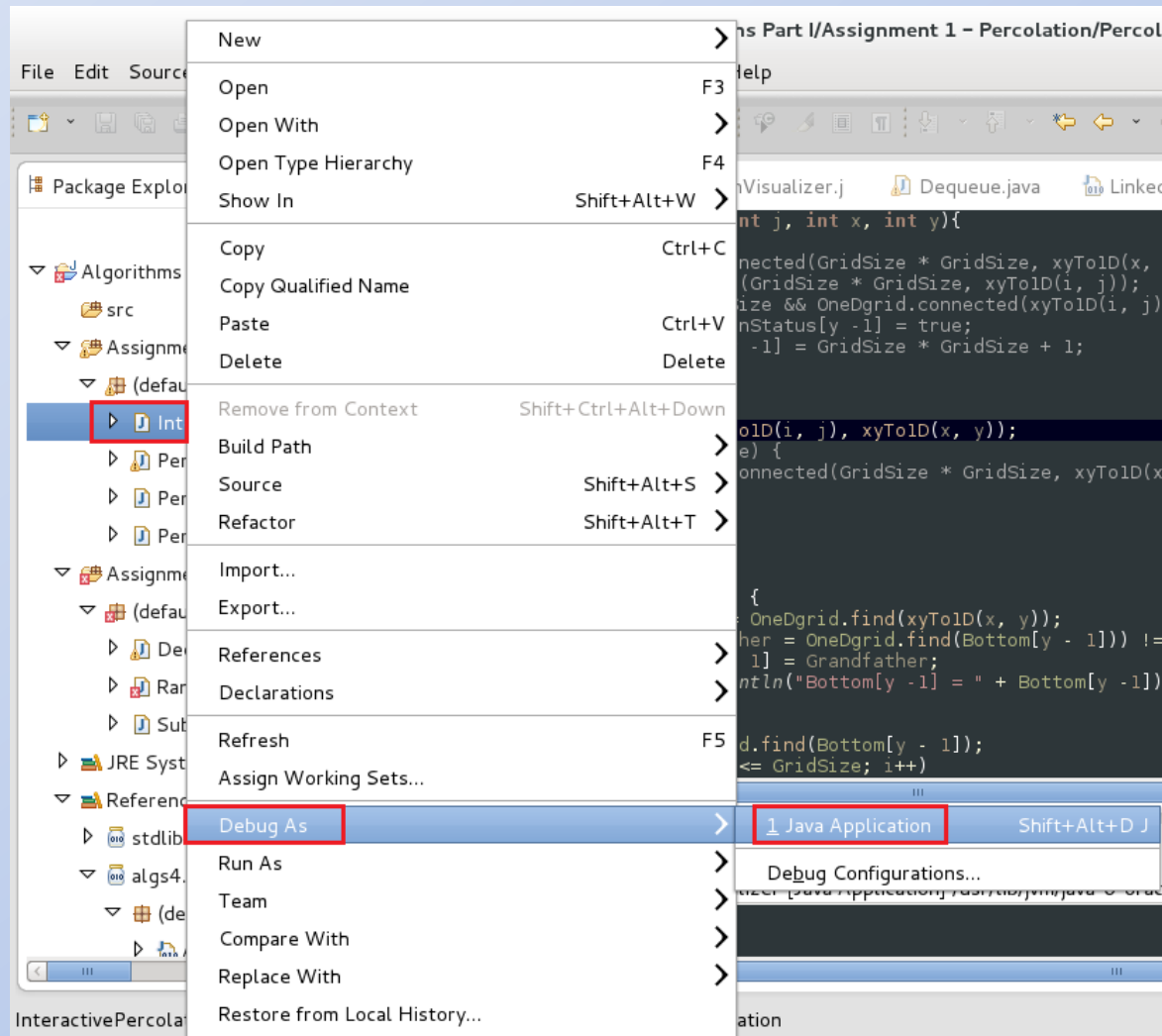
- 1. Set breakpoint
- 2. Enable debug

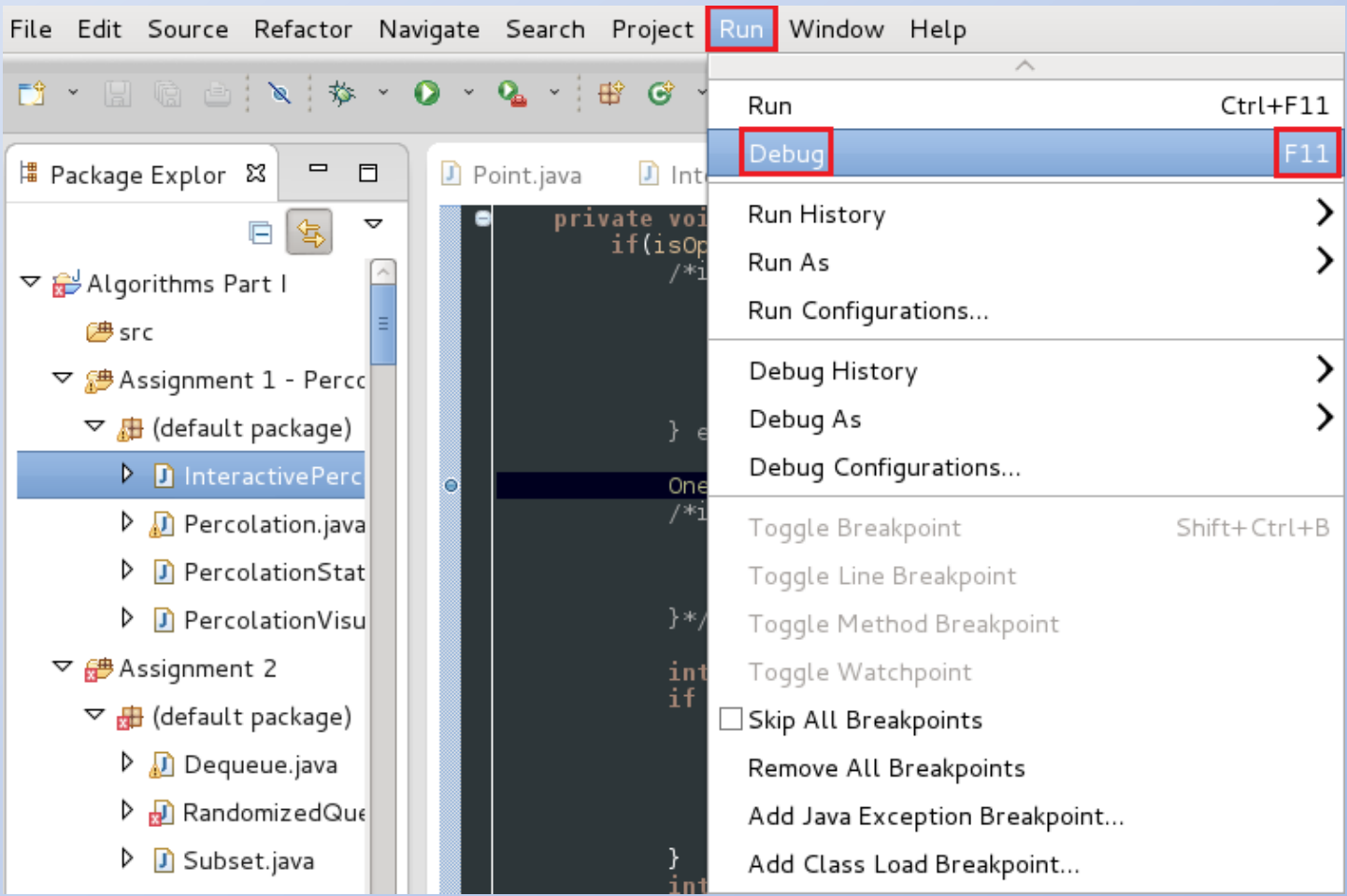
Set Breakpoint



- Double Click
- Indicate which line you want to set, then send "Ctrl+Shift+B"

Enable Debug





Debug Perspective

The screenshot displays the Eclipse IDE in the Debug Perspective. The interface includes a menu bar at the top, a toolbar with icons for file operations and debugging, and several panels for monitoring the program's execution.

Program Execution Controls: Located in the top toolbar, this section contains icons for starting, pausing, and stepping through the code. A red box highlights these controls, with an arrow pointing to the label.

Debug Perspective: The overall view of the IDE, which allows for monitoring the execution of a program. A red box highlights the 'Debug' button in the top right corner, with an arrow pointing to the label.

Execution Stack: A panel on the left side of the IDE showing the call stack of the current thread. It lists the following frames:

- Thread [main] (Suspended (breakpoint at line 151 in Percolation))
- Percolation.join(int, int, int, int) line: 151
- Percolation.open(int, int) line: 40
- InteractivePercolationVisualizer.main(String[]) line: 47
- Daemon Thread [AWT-XAWT] (Running)

A red box highlights the stack, with an arrow pointing to the label.

Variables Inspector: A panel on the right side of the IDE showing the current state of variables. It displays a table with the following data:

Name	Value
this	Percolation (id=21)
i	7

A red box highlights the inspector, with an arrow pointing to the label.

Breakpoint: A red icon in the left margin of the source code editor indicates a breakpoint set at line 151 of Percolation.java. A red box highlights the icon, with an arrow pointing to the label.

Console: A panel at the bottom of the IDE showing the output of the program. It displays the following text:

```
InteractivePercolationVisualizer [Java Application] /usr/lib/jvm/java-6-oracle/bin/java (Feb 20, 2014, 1:43:43 PM)
7 5
Open 7/5
```

A red box highlights the console, with an arrow pointing to the label.

Terminate: A red icon in the bottom right corner of the toolbar, used to stop the debug session. A red box highlights the icon, with an arrow pointing to the label.

Outline: A panel on the right side of the IDE showing the class hierarchy and methods. It lists the following methods:

- isOpen(int, int) : boolean
- isFull(int, int) : boolean
- percolates() : boolean
- validateBound(int, int) : void
- xyTo1D(int, int) : int
- join(int, int, int, int) : void

Program Execution Controls



- Step into: jump into method/function
- Step over: pass through method/function
- Step return: when you are into a method, then pass through the remainder of code

Debugging - Exercise

- Please download source code from ftp server
 - File Name: DebugError.java
- Try to use the skill I teach to find the bug

Q&A

Thanks for you attentions!