Lab 8 : Cal program & eclipse

Introduction – FOLLOW THE INTERACTIVE INSTRUCTIONS WITH THE LAB PRESENTER!

This lab will be interactive with a lab presenter. Follow along with the lab presenter. If you run into problems or get behind or otherwise have problems, let the lab proctors know right away so we can all stay together during the lab. Part of this lab is to learn some basics of using eclipse.

One partner will do the lab in his/her cs15u account first with the other partner helping and keeping notes. Then switch roles and do the entire lab again in the other partner's cs15u account using the lab notes as a guide.

The Cal program intends to emulate the main functionality of the GNU cal program - displaying a calendar of either the current month and year (default) or a user-specified month and year. However, the version of the program given to you has some problems. It is your job to fix it so that it meets all the specifications below.

In addition, you must keep an interactive Lab Notes log to show us along with demonstrating your Cal program works properly to get checked off at the end of the lab. These are all relatively minor 1 or 2 line programming fixes; do not redesign the program.

Create a Lab8-Cal directory in your home directory
- copy the 3 Java files from ~/../public/Lab8-Cal/ to your new Lab8-Cal directory

Starting eclipse

Setting indentation and braces code style formatter

Create a new Java project in the workspace importing existing files from ~/Lab8-Cal

Fix errors indicated by eclipse
How do you know there is an error?
How do you quickly navigate to an error?

Using QuickFix
How do you invoke QuickFix (multiple ways)?
Run / Run Configurations with Arguments

Setting a breakpoint

How do you set a breakpoint (multiple ways)?

Debug / Debug Configurations with Arguments

Debug Perspective

Step Into
Step Over
Step Return
Terminate

Bug Fix #1

Bug Fix #2

Refactoring - getters and setters

Precondition checks

How do you invoke Content assist/code completion/suggestion (shortcut)?
How do you invoke Quickfix (shortcut)?

Handle potential exceptions from PrintCal (user input error) in Cal

What would be a good class/object invariant and where should they be put? _____________________________

Quit eclipse, in terminal window navigate to ~/workspace/Lab8-Cal/bin/, and run several tests.

Be sure to keep a running log (Lab Notes) of each observed bug, hypothesize what is wrong, how you fixed it, and how you tested the fix. Be sure to include erroneous hypotheses and non-fixes. Learning from mistakes is as important (if not more important).

Get one of the CSE 15L staff to check you off for the lab. You will need to go through your log describing each bug interaction and demo your fixed version of Cal.