

Lab 2

Eclipse and Java Introduction

Objectives of this Lab

1. Configure zyBooks with your EID.
2. Install Eclipse and Java on your personal computer (it is already installed on department machines!)
3. Get Eclipse set up and running on your Linux account
4. Set up your GitHub Account
5. Write a very simple Java program
6. Know how to submit your programs to GitHub Classroom
7. Learn about preliminary (and final) testing

PLEASE BRING YOUR PERSONAL COMPUTER FOR THIS LAB!!

Configure zyBooks

In order for zyBooks to talk to Canvas (which is where your grade will be stored), your EID MUST be in zyBooks. This is entered in the “Student ID” field when registering. This must be your EID and NOT your CSUID. Your EID is the username you typed to log on to the CS Linux systems and to log into Canvas. Your CSUID is a 9-digit number that is on the front of your student ID card. Treat your username with the same privacy you would treat your e-mail address. Treat your CSUID with the same privacy as a Social Security Number (SSN).

Installing Eclipse

Eclipse makes programming easier by compiling and running your Java programs within a very sophisticated software application called an IDE (Integrated Development Environment). Your TA will show you how to install Java and Eclipse on your personal computer. A personal computer is not required for this course, all work can be done on department machines, but it can be convenient at times to work from home. Here are a few hints:

- Always install the Java programming language before Eclipse.
- Versions of Java and Eclipse exist for Windows, MacOS, and Linux.
- Java is free from here:
<https://www.oracle.com/technetwork/java/javase/downloads/index.html>
- The Java Runtime Environment (JRE) is only what is required to run Java programs.
- The Java Development Kit (JDK) is needed to write and compile Java programs.
- We are currently using Java 8, also known sometimes as version 1.8
- Now you are ready to download the Eclipse IDE.

- Eclipse is free from here: <https://www.eclipse.org/downloads/packages/>

Using Eclipse

For the remainder of the lab, please use the Linux system, if provided. Your TA will help with any problems you encounter.

- To start Eclipse, open a terminal and type `eclipse.sh`
- You must do this every time you launch Eclipse.
- Close the window that welcomes you to Eclipse.
- Select the (Window-> Open Perspective -> Java).
- You can change perspectives as needed to fit your workflow.
- If your perspective gets messed up, you can reset it by going to (Window-> Reset Perspective).
- Close the “Welcome” window if it doesn’t disappear automatically.
- Create a default comment header with your name and other information by going to (Window->Preferences->Java->Code Style-> Code Templates->Code -> New Java Files) and putting a line for project name, your name, the class, the date, and your email.

For detailed information on Eclipse, check out the Eclipse website.

Starting the Assignment

Your TA will guide you in creating a project called P1 and class for starting the first week assignment:

- Create a new Java project using the (File->New->Project) and name it P1.
- Right click on P1 in the Package Explorer tab and choose (New->Class).
- Each class in Java has an associated file of the same name.
- Check the box to have Eclipse add main to your program.
- Name it “P1” (Eclipse will add “.java” automatically) and type the code shown below:

Your code should look like this, except with your name and email in the comments:

```
//P1 Assignment
// Author: Cam T. Ram
// Date: 6/18/2019
// Class: CS 163
// Email: eid@cs.colostate.edu

public class P1 {
    public static void main (String [] args) {
        System.out.println("Java programming is great!");
    }
}
```

```
}
```

- You can now run your program by clicking the green “Play” shaped button on the toolbar.
- Note that the output will appear in the Console window at the bottom.
- You should see the program print a line of text to the console.

Submit your program

Your TA will now walk through submitting your code to GitHub Classroom. You will do this for all quizzes and for your final projects at the end. We will be using zyBooks in the lab this semester.

Grading

You will be graded on this Lab for your participation and your submission.