CSCI212 Spring 2018
Lab-1

Goals

- To write the first java program in Unix/linux/mac terminal.
- Compile and execute the program using *javac* and *java* commandline instructions.
- You need to learn to write programs without the help of IDE because you will be given exams where you have to write the java code on paper.
- Write the same program using Eclipse IDE and run it.
- **Those of you that do not complete the task, should go home and complete this work by Wednesday and I will see it in the lab.**

Requirements

1. Your username (First 2 letters of your last name followed by the first two letters of your first name followed by the last 4 digits of your CUNYFirst ID#) and password (all 8 digits of your CUNYFirst ID#) to login to Venus server.
2. You need to download Eclipse Oxygen from Eclipse.org to for writing the program.

Important Notes

- Students with mac do not have to work on venus as the terminal on mac is a Unix terminal.
- Those who have windows machine can use venus by logging into venus.
- From the very first day, get into the habit of naming your java file with the same name as the java class name and both names should begin with the uppercase letter.
- Those who ignore this java programmers' convention are going to lose 10 points from the homework assignment.
- Please do not set tabs. Just use 4 spaces to clearly show the indentation in your program.

Type this program in Eclipse or on the terminal.

```
import java.util.Scanner; //Scanner class is in java.util. pacakge in Java API

public class MyFirstJavaProgram{
   public static void main(String[] args){
      System.out.println("Welcome to Java Lab");

      Scanner kb = new Scanner(System.in); //we have to create a Scanner
                                   // object called kb to be able to read
                                   // the input data from the keyboard

      int num1, num2, sum;
      double average1, average2, x, y, total;

      System.out.println("To begin wth enter two integers");
      num1 = kb.nextInt();
      num2 = kb.nextInt();
      sum = num1 + num2;
      average1 = (double)sum/2;

      System.out.println("The sum of " + num1 +" and " + num2 + " is: " + sum);
      System.out.println("The average of " + num1 + "and " + num2 + " is: "
                       + average1 ); //You could also directly write the
                                     //expression as (double)(x + y)/2;

      System.out.println("Now enter two double values ");
      x = kb.nextDouble();
      y = kb.nextDouble();
      total = x + y;
      average2 = total/2;

      System.out.println("The sum of " + x + " and " + y + " is: " + total);
      System.out.println("The average of " + x + " and " + y + " is: "
                          + average2);
      kb.close();
      }
}
```

Compiling and running using Eclipse

- Once you typed the program, click on the Run tab.
- You see a set of options.
- The first time click on Run as the arrow points to Java application.
- Once you typed the program, click on the Run tab.
- You see a set of options.
- The first time click on Run as option. When the arrow points to Java application, click on it.
- You then have to move the cursor to the console section to enter data.
- That's where you will see the results.

Compiling using commandline on Venus server or Mac terminal

- If you typed your program on venus server, you need to first compile the program using the following commandline instruction.
- javac MyFirstJavaProgram.java and press enter.
- This step compiles your program.
- If there are any syntax errors, your program will not compile until you fix your errors.
- The compiled file will be saved as .class file.
- This file has bytecode for Java Virtual Machine.
- Now type the following command to excecute the file.
- java MyFirstJavaProgram and press enter.
- This is where you will enter the data and look the results.