CISC 181 Fall 2013
Practice Set 0
Assigned: August 28
Due: September 3 at 11:55PM on Sakai

Practice sets are to be completed individually. You are free to consult other students to help complete the practice sets (see syllabus for collaboration policy). However, keep in mind that each practice set is designed to cover basic material on which you will be quizzed and tested.

This practice set has 3 parts.

Part A: Installing Eclipse with Android Toolkit

1. Download the Java JDK (not the JRE) that is appropriate for your platform.
    a. http://www.oracle.com/technetwork/java/javase/downloads/index.html
    b. Click the Download button under JDK:

    c. Check the acceptance box. Then click the appropriate link to download for your operating system (most likely this is either Mac OSX x64 or Windows x64

2. Install the Java JDK. Open the file that is downloaded and follow the instructions. This should install the files in a default location:

    Mac: /Library/Java/JavaVirtualMachines/jdk1.7.0_25.jdk/Contents/Home
    Windows: C:\Program Files\Java\jdk1.7.0_25\bin

    * Windows users should follow these additional steps to add a PATH variable:
        a. Click Start, then Control Panel, then System.
        b. Click Advanced, then Environment Variables.
        c. Add the location of the bin folder of the JDK installation for the PATH variable in System Variables. The following is a typical value for the PATH variable:

            C:\WINDOWS\system32;C:\WINDOWS;C:\Program Files\Java\jdk1.7.0_25\bin

3. Download and install the Eclipse + Android ADT Bundle.
    a. http://developer.android.com/sdk/index.html
    b. Click the Download button for your platform:

    c. Accept the licensing agreement and download the .zip file. You can either download it to specific folder or move it in the next step.
    d. Move the .zip file to somewhere where you won't lose it and extract it there. I recommend creating a folder:

Mac: create a folder in your "Home" folder called CISC181. After extraction you should find the Eclipse.app in /Users/yourname/CISC181/eclipse.

Windows: create a folder in your root folder called CISC181. After extraction you should find the Eclipse.exe in C:\CISC181\eclipse\Eclipse.exe.

4. Run Eclipse for the first time. You will need to create a new workspace. I recommend putting it in the CISC181 folder you created above:

   Mac: /Users/yourname/CISC181/workspace
   Windows: C:\CISC181\workspace

5. At some point Eclipse will ask you if you want to participate in its data collection effort. I recommend telling it to disable this feature.

6. In the first view of your Eclipse workspace it will show you some tutorial related things. You can follow its tutorial, but I recommend watching the following video:

   http://www.cs.armstrong.edu/liang/intro9e/VideoNote/Eclipse/EclipseTutorial.htm

   You should skip to the 1:00 mark and follow from where the Eclipse intro screen starts.

Part B: Using Eclipse

1. Your workspace is divided into individual projects.

   - To start a new project: File->New->Java Project
   - Give the project a name (call it PS0), allow it to use the default options
   - Click Finish

2. To add a class to the project, push the "New Java Class" button in top tool bar (letter C in circle with '+') or File->New->Class

   - Type in name of class (call it Transition), use defaults for all other options for now
   - Modify your new class to match the Transition class example on page 1 of the transition.pdf
   - In Eclipse, run your Transition class example using Run->Run (this is also the same as the green "play" button on the toolbar).
   - Work through pages 1-5 of the transition guide. Make sure to write down any questions you have about Java syntax and ask them in lecture!

Part C: Translating Code

1. Create a new class in your PS0 project called PS0.
2. Translate the Python/Racket program posted on Sakai (PS0_2.7.5.py or PS0_3.3.2.py or PS0.rkt) into a Java program.
3. Make sure to add some output to your Java main method that prints the results of calling your methods. Run your program to ensure the output matches your expectations.

4. Submit your PS0 project to Sakai as a single archive file (.zip). In Eclipse, click on your project and then choose File->Export, and General->Archive File. In the next dialog your project should already be checked, you just need to specify an archive file to create. Once created, upload this archive file as your submission to Sakai.