Session 3 (Java 1) Instructor Notes

1. Review homework 2

2. Ask: any review topics to cover?

3. New material:
   final
   Packages and imports
   Instance and static initializers
   Pass by value vs. pass by ref

4. In-class exercise: Develop blackboard inheritance tree from **Animal** to **SiameseCat**
   Coding exercise: SiameseCat and ancestor classes; use initializers and override/overload
   SiameseCat class
   Create an *animal* package. Put (3) classes into it: **Fish**, **Mammal**, and **Reptile**. Add one attribute and one behavior to each. Create a *animal.cat* package. Put (2) classes into it: **Bobcat** and **Siamese**. Add a protected boolean to Mammal called eggs and set to false. Set eggs to true in Reptile. Siamese should have a parent of **Mammal**. Use an import for Mammal. Add the following to **Siamese**: (3) static final fields: blue eye color and brown fur color, and a String array with (3) names of your choice. Initialize the names with a static initializer. Create a main() method. Have a constructor that initializes a name attribute. Create and instance of Siamese using the name constructor and print the value of eggs.

5. “Truthiness” in Java. What's in a format string: review java.util.**Formatter**

   Coding exercise: **Truthiness** class to test int 0, empty string, null, and false using %b format

6. Never lost: Stalking the Java API
   Have students find some random classes
   Focus on java.lang package, in particular the **System** class for how to read API doc

7. Junit and TDD intro
   Quick overview of a simple test snippet

8. Github intro: how to get class assignments