Instructions

This should be a very easy review for you. When you’re done, go on to the in-tutorial exercise.

Run Java

This first exercise will make sure that you know how to create and run Java programs on the machine of your choice. (If you have done that before, you can skip down to the next exercise, “Using Some Classes”.)

If you are working at our cdfpc lab, have handy your PC00 guide, and also the CodeWarrior Survival Guide on the 148 web page at http://www.cs.toronto.edu/~diane/h/148/00f/java.html

1. Download classes Flyer.java and Mailroom.java from the 148 web site at http://www.cs.toronto.edu/~diane/h/148/00f/tut/1
   and add them into a new project called tutorial1. (Refer to the CodeWarrior Survival Guide for instructions.)

2. Type in the following class, which contains a main program that uses both Flyer.java and Mailroom.java.

   ```java
   public class NotMuch {
       public static void main(String[] args){
           Flyer f = new Flyer("Save Our Planet!");
           Mailroom m;
           System.out.println("This program doesn’t do much.");
           System.out.println(f);
       }
   }
   ```

3. Compile and run NotMuch.

4. Print the output from running NotMuch.

Use Some Classes

Now you’re going to write a slightly more interesting program that uses classes Flyer and Mailroom. Note that you don’t have to understand how they work in order to use them (although it’s pretty simple). All you have to understand is the heading and comment for each public method.

5. Write a class called Annoy that creates a Mailroom with 10 slots, and annoys everyone by putting a flyer that says “Diane for President!” in each slot. Then change the flyer in mailbox 8 to read “Marsha for Prez!”.
   (Try to do this in one line of code.) Finally, print out what’s in every slot.

6. Compile and run Annoy.

7. Print your class Annoy.
Look Inside the Classes

Now look inside the classes and answer these questions about how they work.

8. How many Flyer objects does your Annoy program create?

9. Write a line or two of code that will not work, simply because variable slots in class Mailroom is declared to be private.

10. State 1 practical advantage of making it private.

11. Why does Flyer need both method Flyer() and method revise()? They do the same thing: set the message to the given string.

12. How can Flyer’s contents() method both return the flyer in a slot and leave it in the slot?

13. Why doesn’t empty() just say:

   ```java
   return slots[i];
   slots[i] = null;
   ```

14. Write down the header for the constructor in class Mailroom. When does it get called?

15. Now that you’ve done these exercises, list any questions you have about Java. Be sure to get answers to your questions in office hours, lecture, or tutorial.