

CSC207 Lab 3 — Getting started with Java

To earn lab marks, you must arrive on time and actively participate for the entire session.

1 Overview

This week, you are going to implement two Java classes. You'll also document the classes by providing doc comments for the Javadoc tool.

2 Log in and get things set up

s1 drives and s2 navigates.

1. Update your subversion repository to get the newly created **lab3** directory.
2. Start Eclipse and select **lab3** as a workspace to work in today.
3. Create a new Java Project called **Week3Lab** and a new package named **week3lab**.
4. In package **week3lab**, create classes named **Author** and **Book** as described below.

3 Class Author

Implement the **Author** class and include Javadoc comments.

This class should have two **private** instance variables of type **String** — one for the author's first name and another for the author's last name.

It should also have the following methods (I suggest you use Eclipse to generate these for you!):

1. The constructor that takes a first name as the first argument and a last name as the second argument.
2. Getters and setters for the two instance variables called **getFirstName()**, **setFirstName()**, **getLastName()**, and **setLastName()**.
3. Override **toString()** so that it returns a **String** representation of this **Author**. For example, if the author is named Russel Winder, it returns the string "Winder, Russel".

4 Class Book

Switch roles!

Implement the **Book** class and include Javadoc comments.

This class should have four **private** instance variables: a **String** to store the book title, an array of **Authors** to keep track of the book's authors, a **String** for the book's ISBN, and a **double** for the book's price.

It should also have the following methods:

1. The constructor that takes a book's title, authors, ISBN number, and price, in this order.
2. Getters and setters for the instance variables: **getTitle()**, **setTitle()**, **getAuthors()**, **setAuthors()**, **getISBN()**, **setISBN()**, **getPrice()**, and **setPrice()**.
3. Override **toString()** so that it returns a string representation of the **Book** as follows: for a book titled "Developing Java Software" with authors Russel Winder and Graham Roberts, ISBN number 978-0470090251, and price 79.75, it returns the string "Developing Java Software (978-0470090251, \$79.75, by Winder, Russel and Roberts, Graham)".

4. The `main` method that creates a `Book` titled “Developing Java Software” with authors Russel Winder and Graham Roberts, ISBN number 978-0470090251, and price 79.75, and then prints the `Book`’s string representation to standard output (using `System.out.println`).

Switch roles!

5 Javadoc

Use Eclipse to generate the html documentation from your Javadocs.

Show your work (including your Javadoc!) to your TA.

Using a text editor (e.g., `nedit`, `kate`, or `pico`), in your `lab3` directory create a file named `partner.txt`. In that file there should be exactly one line and that line should contain only the CDF username of `s2` (assuming you are using `s1`’s repository during this lab).

Add and commit the directories `Week3Lab`, `src`, and `week3lab`, and the two Java files to your repository. **Do not include** the `bin` folder or any of the “hidden” files generated by Eclipse.