Lab Sheet – Refactoring

You know by now that the much of a developer's time is not spent coding but rather used in designing, selecting algorithms, exploring new APIs, and so on. Another major activity is to keep up to date by reading articles and even sometimes research journals. It is always a good idea to keep learning and become better at what you do! Your assignment today will consist in reading a very good online article on refactoring in Eclipse:

http://www.ibm.com/developerworks/library/os-ecref/?ca=den-schol

The best way to truly benefit from its content is to have Eclipse open while reading it, to copy-paste the code in the article and to follow the steps that are described. When you are doing the examples in the article, these tips may come in handy:

- For the BagExample, you will need to create an interface called Bag (that defines the get and set methods) and a class MessagePipe (the method in the class does not need to do anything), otherwise you may get an error complaining about compilation errors.
- "Convert Nested Type to Top Level" may actually be called "Move type to new file…", depending on your Eclipse version

Improving AddressBook

1. If it is not already the case, change the BuddyInfo's toString() method so that a BuddyInfo is displayed on a single line, with each attribute of the BuddyInfo separated from one another using a special character. For example, the String could look like this: *"Mr. Buddy$111 Fake Street$613-555-5555"*.
2. The export() method of AddressBook should save each BuddyInfo on a separate line and use BuddyInfo's toString() method.
3. Create a static import() method in BuddyInfo that takes a string parameter and returns a new BuddyInfo object. This type of method is called a Factory Method. Hint: Look at the API for the Scanner class and try using it.
4. *Extra:* Try to create an import() method that reads your exported file and recreates the AddressBook. Hint: To export we used a BufferedWriter so look at the API/examples for BufferedReader to import.

Deliverables:

- The source code you create while working through the refactoring article.
- Your updated AddressBook and BuddyInfo source code