

# Java Object-Oriented Concepts Unit

Lesson 10 Lab 1: AddressBook Version 2

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The Learning House

427 S 4<sup>th</sup> Street #300

Louisville KY 40202

## Lesson 10 Lab 1: AddressBook Version 2

### Objective:

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The objective of this lab is change the implementation of the first version of AddressBook to take advantage of the new Lambda, Stream, and Aggregate features of Java 8.

### Requirements:

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In this lab, you will add the following features to your address book:

1. Your address book must be able to handle multiple address entries with the same last name.
2. Searching by last name must return some sort of Collection or array of Address objects.
3. The user must be able to search addresses by City.
4. The user must be able to search addresses by State.
  - a. When searching by state, the results must be sorted into separate data structures by City.
5. The user must be able to search addresses by Zipcode.
6. You must use an ArrayList rather than a HashMap to hold the Address objects.
7. You must create an Interface for the AddressBook API (i.e. your DAO) that contains all of the methods specified here and in AddressBook Version 1.
8. You must create an AddressBookImpl class that implements the AddressBook interface and uses Lambdas, Streams, and Aggregates.