

# Holding Objects Lab 1:

## Unit Tests

---

You are expected to write unit tests for your code. Be sure to write the tests before implementing the functionality being tested.

## Instructions:

---

### Part I:

Create a PhoneBook class that holds names and phone numbers in sorted order. You can use an associative data type (one which stores items as keys paired with values).

Your PhoneBook class should have a lookup() method which allows you to look up a person's phone number based on their name. PhoneBook should also have methods to add and remove entries, or to list all names or all entries (names and phone numbers).

### Part II:

Add a `reverseLookup()` method to PhoneBook. This method should allow you to look up names by the phone number associated with them.

### Part III:

Some people have more than one phone number. Refactor your PhoneBook class to map names to lists of phone numbers. You should modify your add() and remove() methods to handle adding or removing individual numbers, and create a removeRecord method for removing an entire entry from your PhoneBook.