

# HashtableChain Completion

## Due: Day of lab at 11:59PM

### 1 HashtableChain Completion Specification

#### 1.1 Lab Instructions

- This is an *individual* lab.
- Make sure to read through all of the specifications so your submission is complete.
- Follow all the submission steps in the Setup document by the lab deadline.

#### 1.2 Lab Link

The skeleton code for the lab is available at <https://classroom.github.com/a/ockVHXQt>.

#### 1.3 Implementation

This lab introduces a `HashtableChain` class to implement a hash table. The class is the same as we described in class. It also includes a set iterator, which is interesting but not relevant to the lab.

I have provided the textbook code in the `edu.wit.cs.comp2000` package. You will complete two additional methods – `remove` and `rehash`. A description of the method's expected behavior is included in the comments.

For the `rehash` method, refer to the textbook's description of rehashing a table. You will want to interact with each `Entry` in order to implement a successful rehashing.

#### 1.4 Testing

In addition to the `HashtableChain` code, JUnit tests are provided in the `edu.wit.cs.comp2000.tests` package. You can run these tests to see if the `HashtableChain` implementation is performing correctly. The tests that I have provided check that some of the operations are behaving as expected.

For the rest of the provided test methods (the ones that fail as not implemented), implement tests that check if that method works with your hash table implementation. Make sure that you actually call the method that you are testing, and test for a range of results that you might expect, including edge cases.

#### 1.5 Available Resources

- Lecture slides
- Other sections of the provided code
- me
- The textbook
- **DO NOT** refer to or use online implementations

### 2 Double Check:

- Have you implemented the `remove/rehash` methods?
- Have you written two JUnit tests?
- Have you committed/pushed your code from the two files?

### 3 Grading

Each of the 4 **TODO** sections is worth  $\frac{1}{4}$  of the lab grade.

Grades and any comments for the lab will be posted to your project on github. Grades will also be posted to Brightspace, eventually.