Name: Scott Tornquist

Assignment: 6

### **Submission and Compilation**

• Builds and Compiles Successfully

## Complete & Correct: 25/25

• Unit Test Results:

```
[======] Running 12 tests from 2 test cases.
            Global test environment set-up.
 [ RUN
          BasicHashTableCollectionTest.CorrectSize
       OK ] BasicHashTableCollectionTest.CorrectSize (0 ms)
 RUN
          BasicHashTableCollectionTest.SimpleFind
       OK ] BasicHashTableCollectionTest.SimpleFind (0 ms)
 RUN
            BasicHashTableCollectionTest.SimpleRemove
       OK ] BasicHashTableCollectionTest.SimpleRemove (0 ms)
 RUN
          ] BasicHashTableCollectionTest.SimpleRange
       OK ] BasicHashTableCollectionTest.SimpleRange (0 ms)
 RUN
            BasicHashTableCollectionTest.SimpleSort
       OK ] BasicHashTableCollectionTest.SimpleSort (0 ms)
 RUN
            BasicHashTableCollectionTest.ResizeTest
       OK | BasicHashTableCollectionTest.ResizeTest (0 ms)
 RUN
            BasicHashTableCollectionTest.CopyAndAssignment
       OK ] BasicHashTableCollectionTest.CopyAndAssignment (0 ms)
        ---] 7 tests from BasicHashTableCollectionTest (0 ms total)
[-----] 5 tests from HashTableCollectionTest
[ RUN
          ] HashTableCollectionTest.DoubleRemove
       OK ] HashTableCollectionTest.DoubleRemove (0 ms)
[ RUN
          ] HashTableCollectionTest.RandNegativeSort
       {\tt OK~]~HashTableCollectionTest.RandNegativeSort~(0~ms)}\\
「 RUN
          ] HashTableCollectionTest.KeysFunction
       OK ] HashTableCollectionTest.KeysFunction (0 ms)
「 RUN
          ] \ \ Hash Table Collection Test. Rapid Add Remove
       OK ] HashTableCollectionTest.RapidAddRemove (0 ms)
 RUN
            {\tt HashTableCollectionTest.AllFunctions}
       OK ] HashTableCollectionTest.AllFunctions (0 ms)
       ----] 5 tests from HashTableCollectionTest (0 ms total)
[-----] Global test environment tear-down
 ======] 12 tests from 2 test cases ran. (0 ms total)
[ PASSED ] 12 tests.
```

- Performance Tests:
  - Test 1: Finished in 35.7463 s
  - Test 2: Finished in 36.0949 s
  - Test 3: Finished in 36.1841 s
  - Test 4: Finished in 35.2864 s
  - Test 5: Finished in 47.0039 s
  - Test 6: Finished in 0.2154 s

#### Testing: 5/5

#### Format and Comments: 3/5

• indentation, etc.

# Discussion and Analysis: 4/5

- $\bullet\,$  max chain length seems off (a bit too high)
- ullet hash table remove and find value are O(1) in our implementation

Total Score: 37/40