Name: Matt Moore

Assignment: 8

## **Submission and Compilation**

• Builds and Compiles Successfully

## Complete & Correct: 25/25

• Unit Test Results:

```
[======] Running 15 tests from 2 test cases.
[-----] Global test environment set-up.
  [ RUN
          ] AVLCollectionTest.CorrectSize
       OK ] AVLCollectionTest.CorrectSize (0 ms)
RUN
           ] AVLCollectionTest.SimpleFind
       OK ] AVLCollectionTest.SimpleFind (0 ms)
RUN
           ] \  \, {\tt AVLCollectionTest.SimpleRemove}
       OK ] AVLCollectionTest.SimpleRemove (0 ms)
 RUN
           ] {\tt AVLCollectionTest.SimpleRange}
       OK ] AVLCollectionTest.SimpleRange (0 ms)
[ RUN
           ] {\tt AVLCollectionTest.SimpleSort}
       OK ] AVLCollectionTest.SimpleSort (0 ms)
RUN
           \tt ] \ AVLCollectionTest.CopyAndAssignment
       OK ] AVLCollectionTest.CopyAndAssignment (0 ms)
RUN
           1 AVLCollectionTest.RemoveNodeWithTwoChildren
       {\tt OK~]~AVLCollectionTest.RemoveNodeWithTwoChildren~(0~ms)}
[ RUN
            {\tt AVLCollectionTest.RemoveNodeWithTwoChildrenWithLeft}
       OK ] AVLCollectionTest.RemoveNodeWithTwoChildrenWithLeft (0 ms)
[ RUN
           ] AVLCollectionTest.AddRebalanceCheck
       OK ] AVLCollectionTest.AddRebalanceCheck (0 ms)
[ RUN
            AVLCollectionTest.RebalanceLeftLeftExtreme
       OK ] AVLCollectionTest.RebalanceLeftLeftExtreme (0 ms)
[ RUN
           ] AVLCollectionTest.RebalanceRightRightExtreme
       OK ] AVLCollectionTest.RebalanceRightRightExtreme (0 ms)
 RUN
            {\tt AVLCollectionTest.RebalanceRightLeftExtreme}
       OK ] AVLCollectionTest.RebalanceRightLeftExtreme (0 ms)
[ RUN
           ] \ \ AVL Collection Test. Rebalance Left Right Extreme
       OK ] AVLCollectionTest.RebalanceLeftRightExtreme (0 ms)
[ RUN
           ] {\tt AVLCollectionTest.HugeOverload}
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
```

```
26000
27000
28000
28000
29000

[ OK ] AVLCollectionTest.HugeOverload (3845 ms)
[-----] 14 tests from AVLCollectionTest (3845 ms total)

[-----] 1 test from BasicListTest
[RUN ] BasicListTest.RemoveRebalanceCheck
[ OK ] BasicListTest.RemoveRebalanceCheck (0 ms)
[------] 1 test from BasicListTest (0 ms total)

[------] Global test environment tear-down
[=======] 15 tests from 2 test cases ran. (3846 ms total)
[ PASSED ] 15 tests.
```

## • Performance Tests:

- Test 1: Finished in 43.6136 s
- Test 2: Finished in 46.3142 s
- Test 3: Finished in 46.1871 s
- Test 4: Finished in 47.2565 s
- Test 5: Finished in 46.704 s
- Test 6: Finished in 12.3933 s

Testing: 5/5

Format and Comments: 5/5
Discussion and Analysis: 5/5

Total Score: 40/40