Name: *JC Maes*

Assignment: 9

Submission and Compilation

- Builds and Compiles Successfully

Complete & Correct: 25/25

- Unit Test Results:

```
[==========] Running 13 tests from 2 test suites.
[----------] Global test environment set-up.
[----------] 10 tests from RBTCollectionTest
[ RUN      ] RBTCollectionTest.CorrectSize
[       OK ] RBTCollectionTest.CorrectSize (0 ms)
[ RUN      ] RBTCollectionTest.SimpleFind
[       OK ] RBTCollectionTest.SimpleFind (0 ms)
[ RUN      ] RBTCollectionTest.SimpleRemove
[       OK ] RBTCollectionTest.SimpleRemove (0 ms)
[ RUN      ] RBTCollectionTest.SimpleRange
[       OK ] RBTCollectionTest.SimpleRange (0 ms)
[ RUN      ] RBTCollectionTest.SimpleSort
[       OK ] RBTCollectionTest.SimpleSort (0 ms)
[ RUN      ] RBTCollectionTest.CopyAndAssignment
[       OK ] RBTCollectionTest.CopyAndAssignment (0 ms)
[ RUN      ] RBTCollectionTest.RemoveNodeWithTwoChildrenRightCases
[       OK ] RBTCollectionTest.RemoveNodeWithTwoChildrenRightCases (0 ms)
[ RUN      ] RBTCollectionTest.RemoveNodeWithTwoChildrenLeftCases
[       OK ] RBTCollectionTest.RemoveNodeWithTwoChildrenLeftCases (0 ms)
[ RUN      ] RBTCollectionTest.AddRebalanceCheckLeftCases
[       OK ] RBTCollectionTest.AddRebalanceCheckLeftCases (0 ms)
[ RUN      ] RBTCollectionTest.AddRebalanceCheckRightCases
[       OK ] RBTCollectionTest.AddRebalanceCheckRightCases (0 ms)
[----------] 10 tests from RBTCollectionTest (0 ms total)

[----------] 3 tests from BasicListTest
[ RUN      ] BasicListTest.RemoveRebalanceChecksLeftCases
[       OK ] BasicListTest.RemoveRebalanceChecksLeftCases (0 ms)
[ RUN      ] BasicListTest.RemoveRebalanceChecksRightCases
[       OK ] BasicListTest.RemoveRebalanceChecksRightCases (0 ms)
[ RUN      ] BasicListTest.RemoveRoot
[       OK ] BasicListTest.RemoveRoot (0 ms)
[----------] 3 tests from BasicListTest (0 ms total)

[----------] Global test environment tear-down
[==========] 13 tests from 2 test suites ran. (0 ms total)
[  PASSED  ] 13 tests.
```

- Performance Tests:

  - Test 1: Finished in 6.1273 s
  - Test 2: Finished in 8.4829 s
  - Test 3: Finished in 6.0276 s
  - Test 4: Finished in 10.6882 s
  - Test 5: Finished in 16.7503 s
  - Test 6: Finished in 4.7242 s

Testing: 3/5

Format and Comments: 5/5

Discussion and Analysis: 3/5

- find range and sort are $O(n)$

Total Score: 36/40