Red-Black Trees

1. Map (dictionary) data structure: public Map<Key, Value>
   a. Hash Map vs. Binary Tree Map

2. Red-Black Trees (Guibas and Sedgewick, 1978)
   a. Guarantees
      b. Worst case

3. Properties of Red-Black Trees

4. Proof of bounds

5. Maintaining approximate balance

6. Implementation & software engineering

7. Left-Leaning Red-Black Trees (Sedgewick 2008)