

Lab 5

Red-black tree.

Write code for red-black tree.

(1) LEFT-ROTATE(T, x) and RIGHT-ROTATE(T, x); (10%)

(2) RB-TREE-INSERT(T, x); (25%)

(3) RB-TREE-DELETE(T, x); (25%)

(4) RBTree class; (20%)

(5) Document (including a complete use case). (20%)

Note. T points the root of a red-black tree and x points any node in a red-black tree.