
Trees, Heaps, HEAP-SORT, Hashing, and amortization.

Exercise Session

1. Discuss <http://java.sun.com/javase/6/docs/api/java/util/HashMap.html>
and <http://java.sun.com/javase/6/docs/api/java/util/HashSet.html>
2. GT C-2.23 p. 135
3. GT C-2.29 p. 135
4. GT C-2.32 p. 135
5. GT C-1.31 p. 53

Problems For Self-Study

1. GT R-2.19 p. 132, GT R-2.24 p. 132
2. GT R-2.20 p. 132 (read about linear probing in the book p. 1230)
3. For the tree of Fig. 5 in the lecture note on trees (Episode 10), write out the keys of nodes using the in-order and post-order traversal.
4. GT Exercise C-1.1 p. 50 (amortization)

Homework Assignment

GT Exercise C-2.2 p. 133 and GT Exercises C-1.7 p. 50 [ca. 3-4 hours]

Hint: First try to design a queue using two stacks, and then prove the amortized complexity for it. Do not try to do the two things at the same time.

Deadline: before the lecture on February 28.