10-3-2016

(1) Final Exam:— 12/12   time & room : To be Confirmed

(2.) Midterm Review :   Oct 17

Topic :   Trees —— rooted trees
                      —— Binary trees

                left /\ right.

                              ———→ Implement

Dictionary
↑
insert
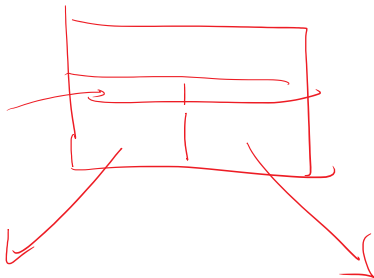remove
Search

Extended Binary Trees

→ PR
brackets

Threaded trees

Node structure
bit
(Thread)
or not

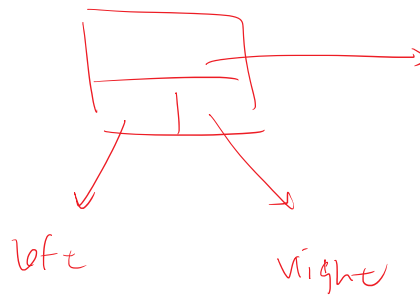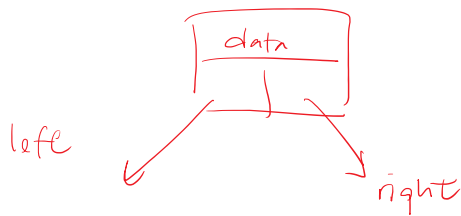Set up for a threaded trees :——

→ first node
   → with respect to inorder.

→ form a next function

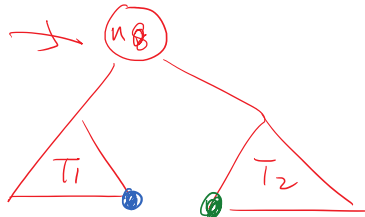→ form a prev function

   n   node.
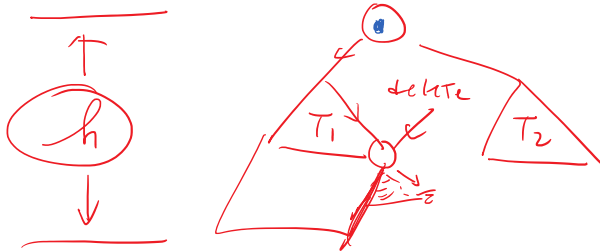 ↙ ↘   n   next (n)
 ⊨ ⊨

        not null

    n
   ↙
  /\
 /__\
  1
  0

Binary Search Trees

data

left   right
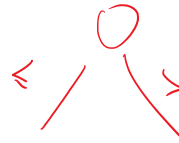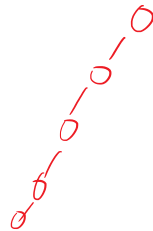
left   right

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delete → n

immediate pred of n
immediate succ of n

T₁   T₂

h

Remark: Be Careful
if there are
multiple nodes
with the same key.

delete

T₁   T₂

Worst Case
of these →
Operations
$O(n)$

→ "Balanced" Binary Search
Trees

Tree Operations   → 5 ← Store information

5   4 ← Store information
4

3 ←

f → 2 ←
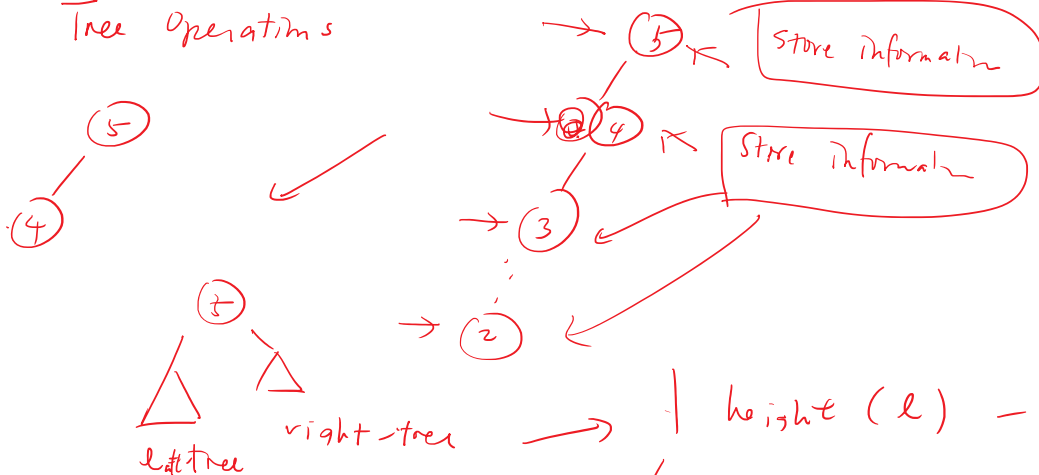
left tree   right tree → | height(l) − height(r) |

for AUL tree (one version
of balanced binary Search
tree)

Want to keep

of balanced binary search tree)

Want to keep ≤ 1 at every node.