

CSE 101 11-14-25

11

Supplemental Lecture

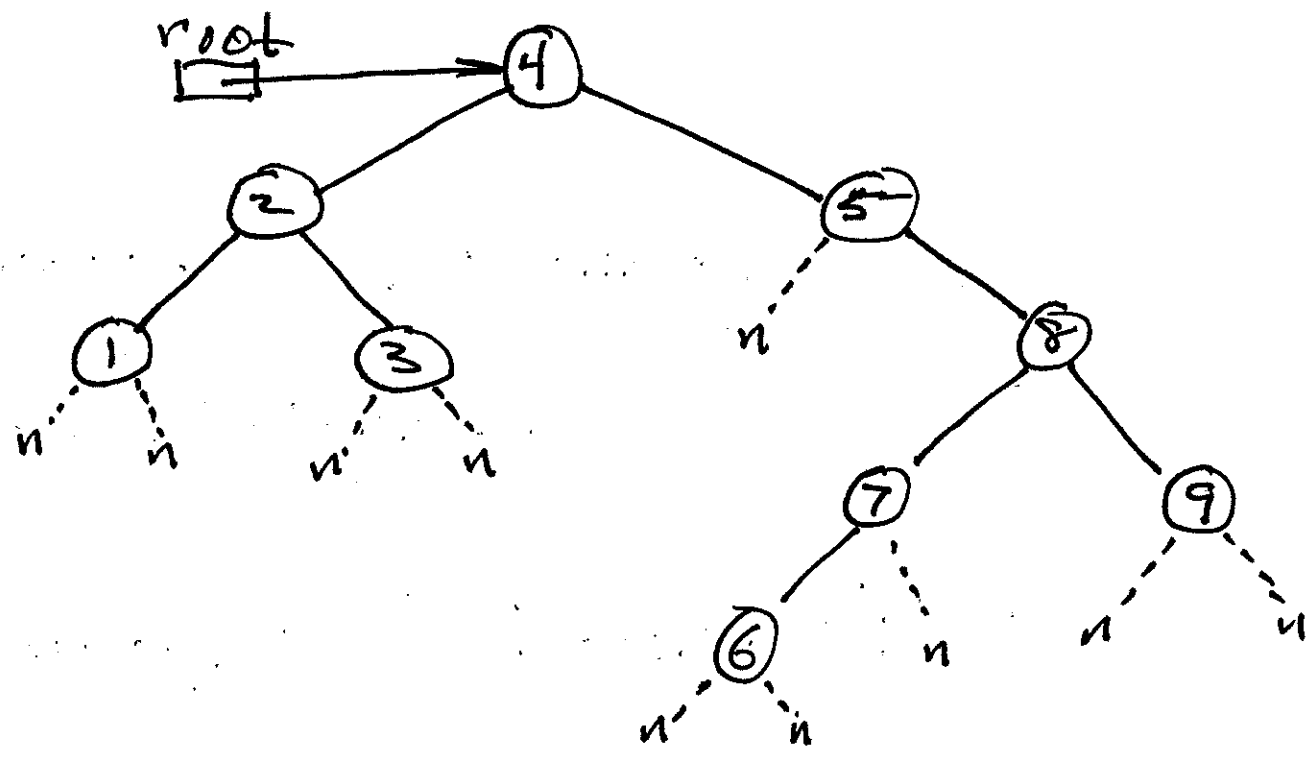
Pa6: Due Monday

Mid2: Thursday

Handout: Dictionary ADT

• Binary Search Trees.

Ex in order tree walk

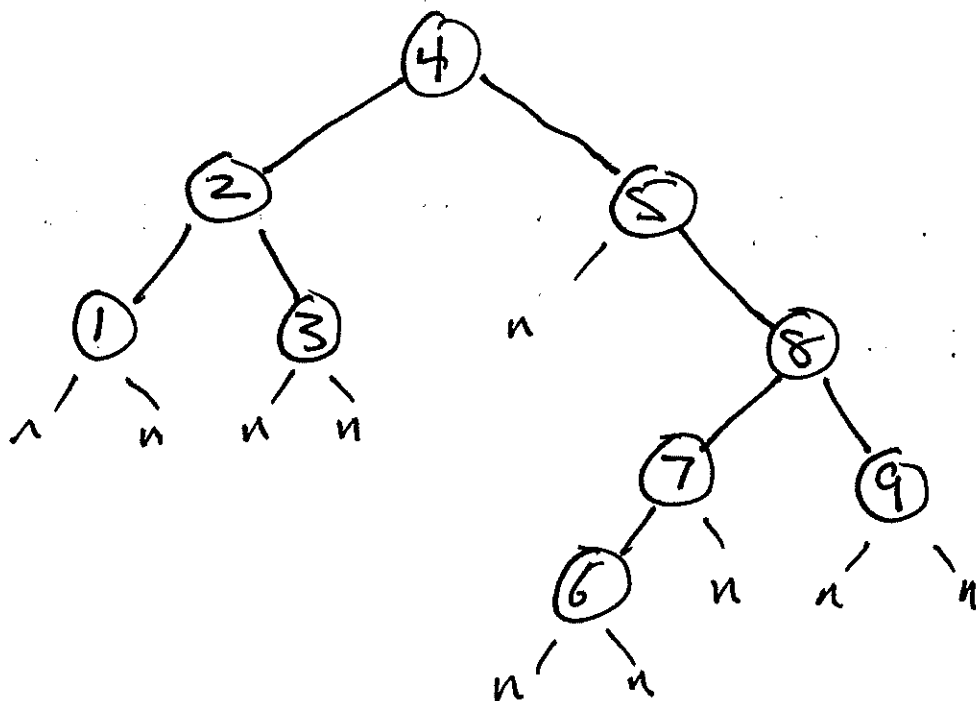
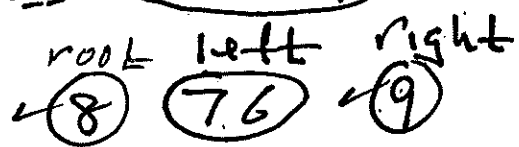
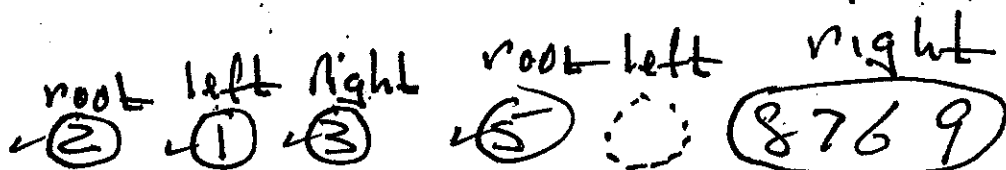
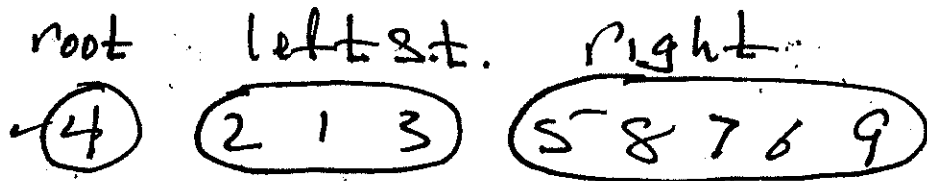


Print : 1, 2, 3, 4, 5, 6, 7, 8, 9

Runtime : $O(n)$, $n = \#keys$
 $= \#nodes$

Ex Pre order tree walk

Print: 4, 2, 1, 3, 5, 8, 7, 6, 9



Defn

5

The height of a BST
T is the length of
the longest line of ancestry,
i.e. the depth of the deepest
leaf.

Runtime of TreeSearch()
(worst case)

Θ (height of tree)

Defn

The Successor of a node x is the next node after x to be processed in an in order tree walk.

Exercise

- define predecessor
- write Pseudo-code for TreePredecessor()