

CSCA48 TUTORIAL WEEK #5

TUT 0006

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ADMIN STUFF

Regarding quiz

Regarding exercises/assignment

Regarding term test

ADMIN STUFF

Quiz:

- I have to hold your quiz for (at least) one week

Exercise/Assignment:

- No remarks will be processed for crashing the auto-tester due to non-UTF8 characters copied into your assignment/exercises. Any outstanding remarks already will be processed as normal.
- No remarks will be processed for small mistakes in exercises, e.g. wrong file name, wrong function name, etc.

ADMIN STUFF

Term Test 1:

- Friday February 3rd @ 3:00pm

Last Name	Room
A - C	SW 319
D - J	SY 110
K - N	AA 112
O - SL	HW 216
SO - Z	IC 130

THIS WEEK

I don't know what to talk about (a few hours ago)

Tree traversals

Coding example: Finding an item in a tree



THIS WEEK

Introduction to Trees

Tree traversals

(Enough information to do exercise 3!)

TREES

Tree:

A linked data structure consisting of a root node, and each of its nodes can have multiple pointers to child nodes.

Binary Tree:

A tree where the maximum number of child nodes is 2.

Binary Search Tree (BST):

A binary tree where for each node, every value in its left subtree is less than (or equal to) the value in the node itself, and every value in its right subtree is greater than (or equal to) the value in the node itself.

TREES

Example: Insert [F B G A D C E I H] into a BST.

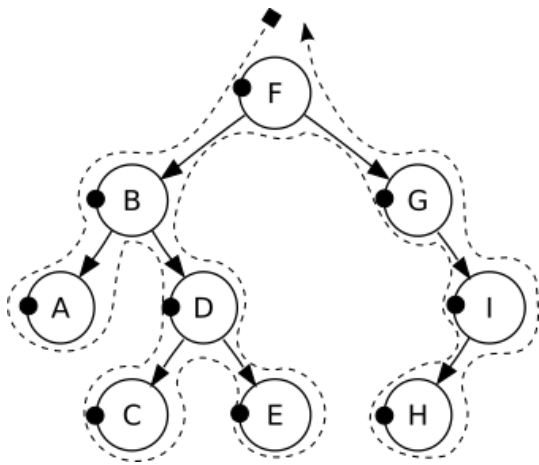
TREE TRAVERSALS

Visiting each node in a tree exactly once

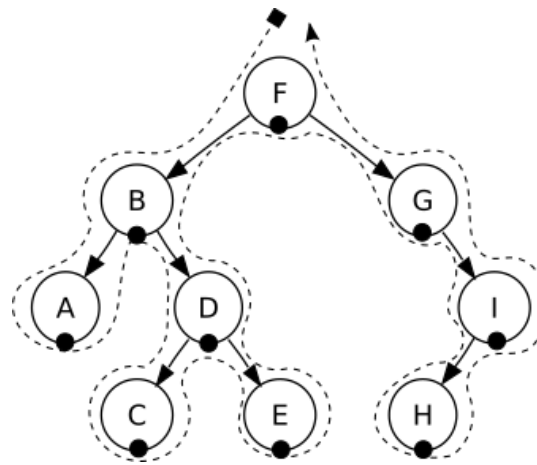
- Pre-order
- In-order
- Post-order

To the board!

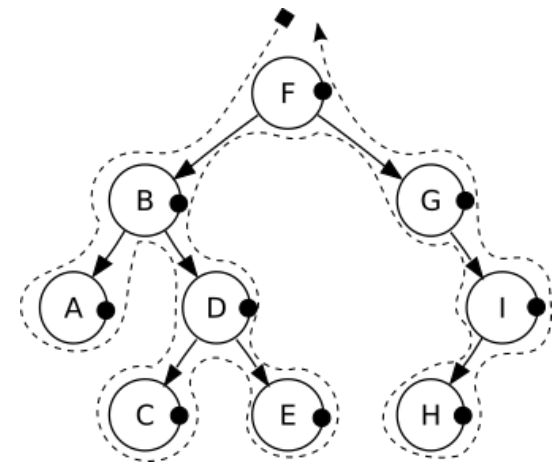
TREE TRAVERSALS



Pre-order



In-order



Post-order

Exercise: Insert [1, 13, 11, 14, 19, 18, 3, 16, 17] into a BST, then traverse the BST in pre-order, in-order, and post-order.

REMINDERS

Exercise 3 dues Friday February 3, 2017. 11:55pm

Term test 1 is Feb 3rd, 3:00 - 4:30pm