Reverse Level Order Traversal

March 11, 2013

19 Comments | Filed under Trees

We have discussed level order traversal of a post in previous post. The idea is to print last level first, then second last level, and so on. Like Level order traversal, every level is printed from left to right.

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Find a pair with given sum in a Balanced BST

March 10, 2013

47 Comments | Filed under Trees

Given a Balanced Binary Search Tree and a target sum, write a function that returns true if there is a pair with sum equals to target sum, otherwise return false.

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Find if there is a triplet in a Balanced BST that adds to zero

March 9, 2013

20 Comments | Filed under Trees

Given a Balanced Binary Search Tree (BST), write a function isTripletPresent() that returns true if there is a triplet in given BST with sum equals to 0, otherwise returns false.

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Iterative Postorder Traversal | Set 2 (Using One Stack)

February 25, 2013

14 Comments | Filed under Trees

We have discussed a simple iterative postorder traversal using two stacks in the previous post. In this post, an approach with only one stack is discussed.

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Iterative Postorder Traversal | Set 1 (Using Two Stacks)

February 23, 2013

8 Comments | Filed under Trees

We have discussed iterative inorder and iterative preorder traversals. In this post, iterative postorder traversal is discussed which is more complex than the other two traversals (due to its nature of non-tail recursion, there is an extra statement after the final recursive call to itself).

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Dynamic Programming | Set 26 (Largest Independent Set Problem)

February 17, 2013

29 Comments | Filed under Trees

Given a Binary Tree, find size of the Largest Independent Set(LIS) in it. A subset of all tree nodes is an independent set if there is no edge between any two nodes of the subset. For example, consider the following binary tree. The largest independent set(LIS) is {10, 40, 60, 70, 80} and size of […]

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Segment Tree | Set 2 (Range Minimum Query)

January 29, 2013

13 Comments | Filed under Trees

We have introduced segment tree with a simple example in the previous post. In this post, Range Minimum Query problem is discussed as another example where Segment Tree can be used

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All permutations of a given string
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Minimum Query problem is discussed as another example where Segment Tree can be used.

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Segment Tree | Set 1 (Sum of given range)

January 16, 2013

44 Comments | Filed under Trees

Let us consider the following problem to understand Segment Trees. We have an array arr[0 . . . n-1]. We should be able to 1 Find the sum of elements from index l to r where 0 < = l

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Ternary Search Tree

January 13, 2013

33 Comments | Filed under Trees

A ternary search tree is a special trie data structure where the child nodes of a standard trie are ordered as a binary search tree.

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Linked complete binary tree & its creation

January 6, 2013

18 Comments | Filed under Trees

A complete binary tree is a binary tree where each level ‘l’ except the last has 2^l nodes and the nodes at the last level are all left aligned. Complete binary trees are mainly used in heap based data structures.

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Morris traversal for Preorder

January 3, 2013

11 Comments | Filed under Trees

Using Morris Traversal, we can traverse the tree without using stack and recursion. The algorithm

for Preorder is almost similar to Morris traversal for Inorder.

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Convert a BST to a Binary Tree such that sum of all greater keys is added to every key

January 1, 2013

14 Comments | Filed under Trees

Given a Binary Search Tree (BST), convert it to a Binary Tree such that every key of the original BST is changed to key plus sum of all greater keys in BST

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Iterative Preorder Traversal

October 22, 2012

19 Comments | Filed under Trees

Given a Binary Tree, write an iterative function to print Preorder traversal of the given binary tree.

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Floor and Ceil from a BST

October 17, 2012

16 Comments | Filed under Trees

There are numerous applications we need to find floor (ceil) value of a key in a binary search tree or sorted array.

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Neha I think that is what it should return as, in...

Find depth of the deepest odd level leaf node · 2 hours ago

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