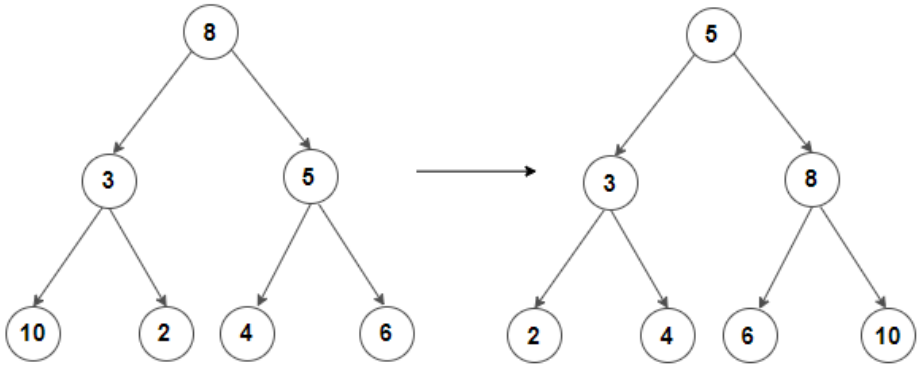
CS102 - Lab 10 - 05/07/2023

problem1

Write a C program to generate a Binary Search Tree (BST) from a given Binary Tree (BT). The program should take the root of the Binary Tree as input and construct a new Binary Search Tree by rearranging the nodes in such a way that the resulting tree satisfies the properties of a BST. You can assume that the Binary Tree does not contain any duplicate values.



problem2

Write a C program to check if a given binary tree is a valid binary search tree, where the values of nodes in the left subtree are less than the node value and values in the right subtree are greater.

problem3

Given a Binary tree, write a C program to invert a binary tree, i.e., swap the left and right children of every node.

problem4

Considering the graph below, write a C program to generate the BFS and DFS traversals.