COSC 2007T

Programming Lab 3 (Binary Search Trees)

Problem Specification:

1. Write a Java program to construct a Binary Search Tree by inserting the following elements 3, 8, 1, 4, 6, 2, 10, 9, 20, 25, 15, 16. 3 is the root node. Also Perform the following operations

- Display the tree elements in increasing order
- Check whether a node with value 4 exists
- Delete Node (2) with no children
- Delete Node with one child (4)
- Delete Node with two children (10)

Submission Instructions:

Please ensure you submit an original work and should not be copied or zero will be given for copying.

Please record a one minute video, showing the program execution (code and output). You must show your face and introduce yourself in the first 5 seconds of video. Longer videos cannot be uploaded therefore keep your recordings short. You can use any screen recording software which captures your face and the screen or you may start a meeting keeping only yourself in Google Meet and record.

Ensure that your code follows Java language programming style and guidelines. Your code must compile without errors and execute as per the specifications in the problem description.

Carefully write comments in the source code to have an understanding.

Marking Scheme:

Introduction	3
Complete program with comments, no compile/logical error, and correct output:	7