

1. Design BST data structure and implement the following methods
 - a. Check BST is empty
 - b. Get count of nodes in BST
 - c. Add node to BST
 - d. Search node in BST
 - e. Tree traversal
 - i. In-order
 - ii. Pre-order
 - iii. Post-order
 - iv. Level-order
 - f. Delete specified node
 - g. Find height of BST
 - h. Count number of terminal nodes in BST.
2. Modify a BST so that each node stores an **extra field: size of its subtree**.
3. Develop an application for managing events using BST. It is assumed that only two events can be scheduled in any given day, Max time allotted for each event is 5 hours. Minimum time between two events is 3 hours. Data need to be captured are event data and time, event name and number of guests expected. Provide methods to add event, provision to cancel event, display the events in descending order and delete the events which are completed. Take event date and time as unique parameter.