

## Data Structures and Algorithms Lab

### 07. Trees

**Subject Code:** 17ECSP201

**Lab No:** 07

**Semester:** III

**Date:** 3 & 5 Oct, 2017

**Batch:** C1&C2

**Question:** Computer Representation of a Binary Search Tree

**Objective:** Usage of list representation to implement a BST and its operations

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For the project in which you have already started implementing a Binary Search Tree, add the following:

- Comment the code
- Provide a menu in main for
  - Insertion into BST
  - Pre-order Traversal
  - In-order Traversal
  - Post-order Traversal
  - Delete from a BST
- Along with that, also add the following functions to the main menu:
  - Write a function to count the total number of nodes in a BST
  - Write a function to count the total number of leaf nodes in a BST
  - Write a function to sort and print the data from BST
  - Write a function to search a node in a BST
  - Write a function to find the in-order successor of the given node

**\*\* Happy Coding \*\***