UCS 1312 Data Structures Lab
A6: Applications of Binary Search Trees

--Dr. R. Kanchana

Best Practices to be adapted

- Modular design and coding using versions
- Improve readability of code by making the program self-explanatory, giving meaningful names to your variables and functions
- Design of a good UI

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Write algorithms for applications and trace them with an example. Inspect the steps using the diagrammatic representation of the tree.

1. Create an ADT for a binary search tree (bst.h). (CO2, K3)

   a) Add the following operations:

      Insert, delete, inorder, preorder, postorder, levelorder (optional), search, maximum, minimum

   b) Write an application for the following (a6bst.c)

      I. *Check whether two BSTs are identical*

      II. *Print the number of leaf nodes, non-leaf nodes, total number of nodes*

   c) Demonstrate the binary search tree operations and applications with the following test cases

      Sample Input: 65 34 29 65 10 7 15 1

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