

CO322: Data Structure and Algorithms

Lab3– Part 2: Binary Search Trees

April 28, 2016

Exercise 1

1.1. Implement Binary Search Tree (BST) ADT, which have the following functions:

- *createBST* (create the BST Data Structure)
- *destroyBST* (destroy/clean BST Data Structure)
- *copyBST* (create a copy of the BST)
- *addBST* (add/insert an item into the BST)
- *deleteBST* (find and delete an item from the BST)
- *FindBST* (find a given element in the BST)
- *FindMax*
- *FindMin*
- *printOrderedList* (print the ordered list of items in the BST)

Note: Your implementation should implement and utilize basic traversal functions (e.g., preorder, inorder and postorder traversal) where necessary.

1.2. Write a program to demonstrate the functionality of your BST implementation.