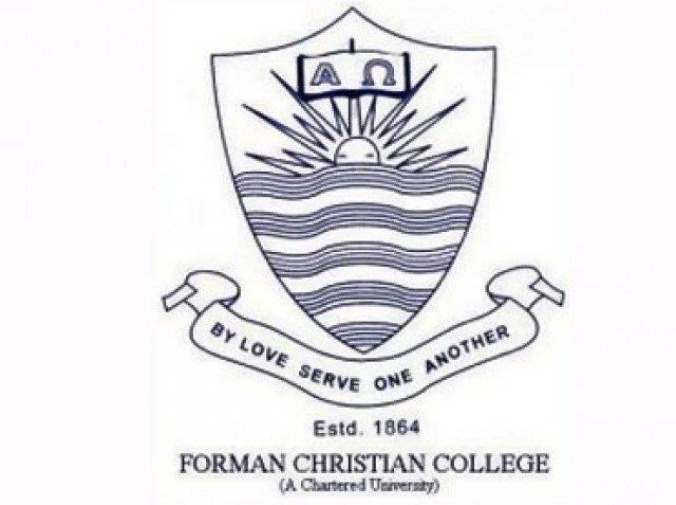
Data Structures and Algorithms

Comp 200

Fall 2022



Department of Computer Science

Forman Christian College University

Lab 10
Binary Search Tree

In Lab Problems

Question 1:

Create a class **BST** using the class **BSTNode** having **key, data, left, and right** data fields. The class **BST** should have the data field **root** of type **BSTNode** and size. It should implement the following methods:

id	*Method*	*Comments*
1	**`__init__(self)`**	Initialize the BST
2	**`insert(self,key)`**	Insert data into BST
3	**`Delete(self,key)`**	Delete the data from BST
4	**`Search(self,key)`**	Search the data and return BSTNode
5	Inorder(self)	Print the keys in inorder
6	Preorder(self)	Print the keys in preorder
7	Postorder(self)	Print the keys in postorder
9	**`GetParent(self,key)`**	Return the parent of the given key
10	**`Height(self)`**	Returns the height of the Tree