CAB302 – Assignment 2 ToArray Psuedocode

**ALGORITHM** *IsEmpty()*

// Check if this member collection a binary search tree is empty

//

**If** *root = null*

**return *true***

**else**

**return *false***

**ALGORITHM** *InOrderTraverse(root, members, index)*

//Traverses a binary search tree and fills the array 'members' with sorted member elements.

// Input: root, members, index

// root: The first node in the binary search tree (BTreeNode).

// members: The array in which nodes will be placed, sorted alphabetically by their names.

// index: A variable that tracks the current position in the members array (passed by reference).

//Output: An array that contains sorted list of IMembers by their names.

**If** *root null* **do**

*InOrderTraverse(root.lchild, members, index)*

*members[index] ← root.member*

*index ← index + 1*

*InOrderTraverse(root.rchild, members, index)*

**ALGORITHM** *ToArray()*

// Returns an array that contains all the members in this member collection.

// The members in the array are sorted in alphabetical order by full name.

**If** *IsEmpty()*

***return*** *null*

MemberArray 🡨 IMember [*0…count - 1]*

*Index 🡨 0*

*InOrderTraverse(root, MemberArray, index)*

**return** memberArray[]