

Declare and implement a class that provides the following interface EXACTLY.

You will create 2 new files, `bs_tree.h` and `bs_tree.cpp`

You will also need to use your `bst_node.h` and `bst_node.cpp` from the previous exercises.

Class Name: `BSTree`

Private Members:

```
bool Insert(int, BSTNode*&)
    --creates a new BSTNode, inserts it into the tree, and returns true
    if the integer is already in the tree, does not insert, and
returns false
```

```
void Clear(BSTNode*&)
    --clears the entire contents of the tree,
    freeing all memory associated with all nodes
```

```
string InOrder(BSTNode*)
    --creates a string of the data in all nodes in the tree, in
ascending order
    separate by spaces (there should be a space after the last output
value)
```

```
BSTNode* root_
    --points to the root node of a binary search tree
unsigned int size_
    --holds the number of nodes in the tree
```

Public Members:

```
Default Constructor
    --sets root_ to NULL
    sets size_ to 0
```

```
Destructor
    --calls Clear()
```

```
bool Insert(int)
    --calls private function Insert(int, root)
```

```
void Clear()
    --calls private function Clear(root)
```

```
unsigned int size() const
    --Accessor for size_
```

```
string InOrder()
    --calls private function InOrder(root)
```