

## Tests Design

### ABB Tests

#### Scenarios setup:

Name	Class	Scenario
setup1	BinarySearchTree	A BinarySearchTree of integers which will have the following numbers added to it.  1, 42, -23, -25, -6, 6 and 11.

#### Tests cases design:

**Test objective:** Verify the correct functionality of the insert method of the BinarySearchTree.

Class	Method	Scenario	Input values	Result
Binary Search Tree	insert		1	Integer was added to the binary tree and is now the root of the tree.
Binary Search Tree	insert		42	Integer was added to the binary tree as the right child of the root.

Binary Search Tree	insert		-23	Integer was added to the binary tree as the left child of the root
Binary Search Tree	insert		-25	Integer was added to the binary tree as the left child of the node with a value of "-23"
Binary Search Tree	insert		-6	Integer was added to the binary tree as the right child of the node with a value of "-23"
Binary Search Tree	insert		6	Integer was added to the binary tree as the left child of the node with a value of "42"
Binary Search Tree	insert		11	Integer was added to the binary tree as the right child of the node with a value of "6"

**Test objective:** Verify the correct functionality of the Search method of the BinarySearchTree.

Class	Method	Scenario	Input values	Result
Binary Search Tree	search	setup 1	1	True (Was found)
Binary Search Tree	search	setup 1	9	False (was not found)
Binary Search Tree	search	setup 1	42	True (Was found)
Binary Search Tree	search	setup 1	-100	False (Was not found)
Binary Search Tree	search	setup 1	11	True (Was found)
Binary Search Tree	search	setup 1	6	True (Was found)
Binary Search Tree	search	setup 1	7	False (Was not found)

**Test objective:** Verify the correct functionality of the Delete method of the BinarySearchTree.

Class	Method	Scenario	Input values	Result
Binary Search Tree	delete	setup 1	0	False(Was not deleted because is not in the tree)
Binary Search Tree	delete	setup 1	11	True(was deleted and relations with other objects were severed)
Binary Search Tree	delete	setup 1	42	True(was deleted and relations with other objects were severed)
Binary Search Tree	delete	setup 1	-23	True(was deleted and relations with other objects were severed)
Binary Search Tree	delete	setup 1	1	True(was deleted and relations with other objects were severed)