

getRoot(BST)

"Returns the element of the root"

{pre: this.root.getElement() }

{post: (element) }

Search(BST, goal)

"Search the element in the BST"

{Pre: TRUE }

{post: (element) }

insert(BST, Key, Element)

"Insert a new element to the tree"

Pre:  $(key, Element) \wedge (Element \neq Null)$

Post: (New element)

inOrder(BST)

"Returns the key of the elements, ordered from minor to major"

{Pre: True }

{post: <keys> }

delete(BST)

"Delete a element of the BST"

Pre: node  $\neq$  null

Pos: node = null

## Tipo Abstracto de Datos BST

$BST = (root \langle key, element \rangle)$

Invariante:  $Right \geq Node$  &  $Left < Node$

Primitive operations:

$getRoot(): \rightarrow Node$

$Search(): \rightarrow Node$

$Insert(l): \rightarrow Node$

$Delete: \rightarrow Node$

$inOrder(): \rightarrow String (texto)$