Extends

Robot

- serialnumber: string
- model: string
- alias: string
- comment: string
- productiondate: string

//constructor

//destructor

+ getSerialNumber(): String

+ getModel(): String

+ getAlias(): String

+ getComment(): String

+ getProductionDate(): String

+ setSerialNumber(string): bool

+ setModel(string): void

+ setAlias(string): void

+ setComment(string): void

+ setProductionDate(string): void

HashTable

- hasharray: ItemType[]

//constructor

//destructor

+ insertHash(): void

+ deleteHash(): void

+ searchHash(): ItemType

+ printHash(): void

+ destroyHash(): void

+ buildHash(): bool

Binary Tree

- root: BinaryNode*
- count: int

//constructor

//destructor

+ isEmpty(): bool

+ size(): int

+ clear(): void

+ preOrder(void visit(ItemType&)): void

+ postOrder(void visit(ItemType&)): void

+ inOrder(void visit(ItemType&)): void

+ breadthOrder(void visit(ItemType&)): void

+ virtual insert(ItemType&): bool

+ virtual remove(ItemType&): bool

+ virtual getEntry(ItemType&): bool

- destroyTree(BinaryNode<ItemType>*): void

- _preOrder(void visit(ItemType&, BinaryNode<ItemType>*)): void

- _inOrder(void visit(ItemType&, BinaryNode<ItemType>*)): void

- _postOrder(void visit(ItemType&, BinaryNode<ItemType>*)): void

- _breadthOrder(void visit(ItemType&, BinaryNode<ItemType>*)): void

Binary Search Tree

- root: BinaryNode*
- count: int

//constructor

//destructor

+ insert(ItemType&): bool

+ remove(ItemType&): bool

+ getEntry(ItemType&): bool

- _insert(BinaryNode*, BinaryNode*): BinaryNode*

- _remove(BinaryNode*, ItemType, bool): BinaryNode*

- deleteNode(BinaryNode*): BinaryNode*

- findNode(BinaryNode*, ItemType&): BinaryNode*

Binary Node

- item: ItemType
- leftPtr: BinaryNode<ItemType>*
- rightPtr: BinaryNode<ItemType>*

//constructor

//destructor

+ setItem(ItemType&): void

+ setLeftPtr(BinaryNode<ItemType>*): void

+ setRightPtr(BinaryNode<ItemType>*): void

+ getItem(): ItemType

+ getLeftPtr(): BinaryNode<ItemType>*

+ getRightPtr(): BinaryNode<ItemType>*

+ isLeaf():bool