ListADT

- elements : ListElement [ ]

- numItems : int

- current : int

- exists : boolean

+ ListADT(void)

Default constructor: Initializes the ListADT to an unusable state.

+ ListADT(specifiedSize : int)

Parameterized constructor: Establishes a new "list" of a specified capacity that will be in an empty and usable state.

+ Add(providedElement : ListElement) : boolean {success}

Adds a copy of the provided element to the list.

+ AtEnd(void) : boolean {end}

Identifies if we are beyond the end of the list data.

+ Count(void) : int {numItems}

Gives back the number of elements in the ListADT.

+ Create(specifiedSize : int) : void

Establishes a new "list" of a specified capacity that will be in an empty and usable state.

+ Delete(searchValue : String) : boolean {deleted}

Locates the matching element and removes it if found.

+ Destroy(void) : void

Sets the list back to an unusable state.

+ Exists(void) : boolean {exists}

Identifies if the list was "created".

+ GetNext(void) : boolean {success}

Sets the "current" list location to the next element.

+ IsEmpty(void) : boolean {empty}

Identifies if the list is empty.

+ IsFull(void) : boolean {full}

Identifies if the list has no remaining capacity.

+ Reset(void) : void

Sets the "current" list location to the first element.

+ Retrieve(void) : ListElement {currentElement}

Gives back a copy of the "current" list element.

+ Search(searchValue : String) : boolean {found}

Locates an element within the ListADT whose "key" matches the given searchValue.

ListElement

- vehicleID : String

- year : String

- make : String

- model : String

- miles : double

- classification : String

- price : double

+ Set(String userVehicleID, String userYear, String userMake, String userModel, double userMiles, String userClassification, double userPrice) : void

Sets all attributes with user specified values.

+ GetKey(void) : String {vehicleID}

Gives back the key (vehicleID) attribute.

+ GetYear(void) : String {year}

Gives back the year attribute.

+ GetMake(void) : String {make}

Gives back the make attribute.

+ GetModel(void) : String {model}

Gives back the model attribute.

+ GetMiles(void) : double {miles}

Gives back the miles attribute.

+ GetClassification(void) : String {classification}

Gives back the classification attribute.

+ GetPrice(void) : double {price}

Sets all attributes with user specified values.

Gives back the price attribute.

+ Clone(void) : ListElement {clonedElement}

Gives back a deep copy of this ListElement.

CarInventory

- None.

+ main(String [ ] args) : void

Gets a choice and performs that choice until the userChoice is 'Q'.

+ GetChoice(void) : char {userChoice)

Gets a choice from the user and returns it.

+ PerformChoice(char userChoice, ListADT theInventory) : void

Based upon the userChoice this loads, saves, adds, displays a single, displays with year/class, displays all.

+ Load(ListADT theInventory) : void

Gets the filename from user and then creates a new ListADT and loads it from specified file.

+ Save(ListADT theInventory) : void

Gets the filename from user and then saves the ListADT to the specified file.

+ AddCar(ListADT theInventory) : void

Gets new car information from user and then adds it to the ListADT.

+ RemoveCar(ListADT theInventory) : void

Gets a vehicle ID from user and if it finds matching vehicle, removes it.

+ DisplaySpecifiedCar(ListADT theInventory) : void

Gets a vehicle ID from user and if it finds matching vehicle, displays it.

+ DisplayCarCatYear(ListADT theInventory) : void

Gets a car category and car year displays all cars that match the category and year.

+ DisplayAll(ListADT theInventory) : void

Displays all vehicles in the inventory.