Dealership Project - ICS372

Software Requirements:

The software shall retain vehicle and dealership information entered the system after every change.

The software shall load existing vehicle and dealership information when starting the application.

The software shall accept vehicle information from new dealerships using their existing data format.

The software shall verify the accuracy of vehicle information received from new dealerships.

The software shall be able to read and write both JSON and XML files.

The software shall be able to read from JSON files.

The software shall be able to read from XML files.

The software shall be able to write to JSON files.

The software shall include the dealership’s name in the system’s data.

The software shall allow the user to modify new and existing dealership names.

The software shall allow dealerships to temporarily rent out vehicles from that dealership’s inventory.

The software shall prohibit Sports Cars from being rented.

The software shall track which vehicles are currently rentable, and which are for sale.

The software shall prohibit the sale of vehicles that are currently being rented

The software shall allow the user to change a vehicle for rent to a sellable vehicle

The software shall allow vehicles to be transferred between dealerships.

The software shall allow users to manually enter a vehicle into a dealership’s inventory.

The software shall allow users to be able to remove vehicles from a dealership’s inventory.

The software’s GUI shall be able to display the company inventory in table form and sorted by dealership.

Features:

*New feature 1: We have 3 new dealers using the software. Some of those dealers rent out the cars they have on a temporary basis. They would like to be able to track which cars are loaned out and thus not available for sale. Because of the amount of joy riding that has occurred, sports cars are not allowed to be rented. The actual loaning is handled by separate software (does not need to be implemented in your application).*

* There are 3 new dealers using the software
* Some of these dealers can now rent vehicles in inventory on a temporary basis.
  + Sports Cars cannot be rented.
  + Rented vehicles are not available for sale.
* Rented vehicles need to be tracked
* (Note: DNI) Rental details are handled by separate software

*New feature 2: The system currently loses its state every time the program is stopped, please retain the vehicles and dealer data that were previously entered when the program starts up.*

* The system is currently losing its state when stopped.
  + Retain vehicle information
  + Retain dealer data
* Program needs to load dealer and vehicle information on startup

*New feature 3: The recently acquired dealers already have their own data format for storing vehicle data. That system already publishes data in XML format (also their system has a lot of bugs, so sometimes the data has issues). These should be importable into our software. The dealer name should be included in the data. Previous records should be able to have the dealer name edited/added.*

* The new dealers use their own data format for storing vehicle data.
  + Data is in XML format
  + Data may be inaccurate (due to existing bugs in their system)
  + Data should be able to be imported into our software
* Dealer name needs to be included in the data.
  + Dealer name can now be added to existing records.
  + Dealer name can now be edited.

*New feature 4: Dealers would like to be able to transfer inventory from one dealer to another.*

* Dealers can now transfer vehicles between dealerships.

*New feature 5: We’d like a graphical interface for the system so users can point and click to perform operations*.

* The software now has a GUI, allowing users to perform operations.

The management team is also concerned about demonstrating the reliability of the code, so **unit tests**

should start to be part of the code provided.

* Unit tests need to be implemented in the code moving forward.
  + Management would like to demonstrate the reliability of the code.