Group Assignment 1 - ICS372

DUE: Feb 12, 2025

Introduction

Your assignment is to design and build a tracking system for a company that owns multiple car dealerships. Admins will need to be able to record vehicles that arrive at the various dealers. It will be evaluated against the following requirements:

1. ***The software shall read a file that is in JSON format containing various vehicle information.***
2. ***The software shall support 4 different types of vehicles in the input file: suv, sedan, pickup, and sports car.***
3. ***The software shall read and store the vehicle ID, manufacturer, model, acquisition date, and price for each entry and associate it with the specified dealer ID.***
4. ***The software shall read and store the associated metadata for each vehicle.***
5. ***The software shall support the following commands for each dealer: add incoming vehicle, enable dealer vehicle acquisition, and disable dealer vehicle acquisition.***
6. ***The software shall only allow adding incoming vehicles to a dealer that has enabled receiving vehicles.***
7. ***The software shall keep records for a dealer that has disabled receiving vehicles, but will not allow new incoming vehicles.***
8. ***The software shall be able to export all vehicles from a dealer into a single JSON file.***
9. ***The software shall show the list of current vehicles for each dealer.***

Usage of the Java standard libraries or other libraries as part of your program is expected. Make sure you include external jar files with your source when you submit it. Documentation of the software is expected as well. Be sure to include a class diagram of the program and a sequence diagram of the add incoming vehicle operation.

Format

As a group deliver the code as a zip file including all the necessary code to execute it including libraries (excluding the Java runtime) as well as a link to your git repo (you should have added me if your repo is private). Include class diagram and sequence diagram of the code you created.

As an individual, submit a 1 paragraph write up of what you contributed to the project and what you learned as well as an assessment of your group members.

Submission

The individual portion can be submitted via D2L to the professor prior to or on the due date.

The group portion can be submitted via D2L to the professor prior to or on the due date.

Evaluation

This assignment will be evaluated/graded based on:

1) Functionality - Does the program meet the requirements?
2) Design - Were good object oriented design principles used in the construction of the program?
3) Style - Do you have comments and well written code?
4) Documentation - Do the diagrams indicate how the software is structured?
5) Self Evaluation - Did you contribute, did you learn anything?

Example JSON input file:

```
{
   "car_inventory":[
      {
         "dealership_id":"12513",
         "vehicle_type":"suv",
         "vehicle_manufacturer":"Ford",
         "vehicle_model":"Explorer",
         "vehicle_id":"48934j",
         "price": 20123,
         "acquisition_date": 1515354694451
      },
      {
         "dealership_id":"12513",
         "vehicle_type":"sedan",
         "vehicle_manufacturer":"Tesla",
         "vehicle_model":"Model 3",
         "vehicle_id":"83883",
         "price": 50444,
         "acquisition_date": 1515354694451
      },
         {
         "dealership_id":"12513",
         "vehicle_type":"pickup",
         "vehicle_manufacturer":"Chevy",
         "vehicle_model":"Silverado",
         "vehicle_id":"89343883",
         "price": 70444,
         "acquisition_date": 1515354694451
      },
         {
         "dealership_id":"77338",
         "Vehicle_type":"sports car",
         "vehicle_manufacturer":"Toyota",
         "vehicle_model":"Supra",
         "vehicle_id":"229393",
         "price": 49889,
         "acquisition_date": 1515354694451
```

```
        }
    ]
}
```