Assignment 4

Instructions

A Used Vehicle Dealership has asked you to develop a JavaFX application that manages the vehicles for their lot.

The application will allow users the perform the following functionality

- Browse
    - a listing of all vehicles
    - all vehicles sold (which should be marked "sold")
    - all vehicles available to purchase
- View
    - Details of company
    - Details of vehicle
- Add
    - Details of vehicle
- Modify (no authentication needed; any user can modify any information)
    - Company details
    - Vehicle details

The JavaFX application is to use file storage to save text and images. When a change is made and the application is reloaded, the changes should persist. Using any sort of database API is not permitted.

The following information/attributes should be saved

Vehicle

- Make[1]
- Model[1]
- Condition[1]
- Engine Cylinders (v4, v6, etc) [1]
- Year[1]
- Number of Doors (2, 4, etc) [1]
- Price
- Color
- Image (thumbnail and fill-sized images)
- Date Sold (can be blank)

---

[1] Recommended to store specified information as a folder

Company

- Name & Logo image (Name should be creative, logo does not need to be original)
- Address consisting of Street name, city, province, postal code (fake information allowed)
- Stats of number of cars sold & total profit (calculated by adding prices of sold vehicles)

Your application should have the following view options. Organize the options in any way you choose (menu options, buttons, etc)

- Splash screen
    - A transition screen that transitions the launch of the app to the home screen
- View all vehicles
    - A view of the vehicles, displaying every attribute[2]
- View available vehicles (vehicles not sold)
    - Should look the same as View all vehicles
- View sold vehicles
    - Should look the same as View all vehicles
- View the details a specific vehicle
    - Display every attribute of vehicle that is not blank. Display large-sized image.
- View details of the company
    - Should look like an About Us page and display all attributes stored
- Modify Company Details
    - A screen with a form that can edit name and address fields.
    - Should be able to upload logo to replace current logo
- Add Vehicle
    - A screen with a form to add a vehicle to the application.
    - User needs to add information to add fields except sold date
    - Error messages should appear if and only if fields are blank
- Modify Vehicle
    - A screen with a form that can only edit the price and sold date.
    - Once a vehicle is sold, it cannot be modified
    - No vehicle deletion should be permitted
    - Error messages should appear if and only if fields are blank

The application is to be submitted with at least 10 vehicles.

---

[2] Must be able to sort the table by every attribute except color, sold date and image. Thumbnail image should be displayed. View may be tabular, list, cards, or any other design desired

Rubric

Design

Item	Mark
All 8 Screen present	4
Menu present that allows user to toggle between pages	1
Splash Page present that transitions to Default view	1
Default View is View All Vehicles screen[3]	1
Thumbnail image appears in View All Vehicles page[3]	1
All attributes except date sold date shown in View All Vehicles page[3]	1
All attributes & image shown in View Vehicle Details page	1
All attributes & image shown in View Company Details page	1
Design creativity	4
Total	15

Coding

Item	Mark
Vehicle Information is retrieved from files and/or folders	3
All Vehicle attributes are stored in files and/or folders	5
Company Information is pulled from files and/or folders	3
All Vehicle attributes are stored in files	1
Sold Vehicles are correctly filtered	1
Available Vehicles are correctly filtered	1
Clicking on single vehicle correctly/accurately retrieves vehicle-specific data (if I click on red Toyota Corolla, I don't see the details of blue Ford F-150)	3
Form validation for adding vehicle is present. All fields except date sold are required. Also, two images should be uploaded (thumbnail & fill-sized image)	5
Form validation for modify vehicle is present. See above for requirements	5
Form validation for modifying company is present. All fields are required. Also, logo should be uploaded	3
Total	30

---

[3] View All Vehicle screen also includes View Available Vehicles and View Sold Vehicles

Submission

Submit one file named assignment4_DDDDDDDDD.zip, where DDDDDDDDD represents your student number. The zip file should your entire JavaFX project.

Deductions

The following deductions will apply if applicable

Name	Percentage	Description
Late Submission	10% per day	If assignment is not handed in by the due date, this penalty will be applied every 24 hours
Project Not Named Correctly	5%	Case-Sensitive naming convention must be followed