

CAR RENTAL PROJECT DESIGN DOCUMENT

Overview

The car rental project is a Java application designed to simulate a simple car rental service. Users can view the available cars, rent a car and only one car at a time, and return the rented car. This program contains information about the available and unavailable cars and their owners.

Car Class

The car class creates a car object with the following attributes:

- Car ID
- Name
- Model
- Year
- Color
- Number of Wheels
- VIN
- Availability
- Owner Information

OwnerInfo Class

The OwnerInfo Class consists of owner information about the following:

- First Name
- Last Name
- State
- Registration Date
- Remaining Balance
- Dealership Name
- License Plate

CarInventory Class

Containing information about the collection of cars and their respective owners. It adds and retrieves information and displays it in the main class.

Main Class

The main class functions as the GUI for this program, which handles the renting and returning of cars. The GUI displays information about the car objects for the user so they can determine what car they want.

Known Issues

The search function and the owner information are not adequate to function in this program. The former is due to redundancy, and the owner information does not display in the user interface. The original scope was to display the owner's information by clicking on the button at the side of the object they are currently renting, so users could see their information. Unfortunately, this greatly exceeds the scope of the project and was ultimately not implemented in the program.

Conclusion

Despite the underutilization and oversimplicity, the car rental program uses a functional, simple interface for the user to rent and return cars. It is not professional by any means, but it is simple enough for users to easily understand and manage their cars.