

## CS250 Inheritance Design Problem

A car dealership wants a piece of software written to manage their inventory of used automobiles. The inventory includes three types of automobiles with the following attributes:

### 1. Cars

- Make
- Model Year
- Mileage
- Price
- Number of doors (2, 4, 5)

### 2. Pickup Trucks

- Make
- Model Year
- Mileage
- Price
- Weight
- Towing Capacity
- Drive Type (2-wheel or 4-wheel)

### 3. SUV

- Make
- Model Year
- Mileage
- Price
- Weight
- Towing Capacity
- Passenger capacity

Using UMLet (the free UML tool), you are to design the classes that you would use to implement the software for the car dealership.

1. Show a diagram for the inheritance hierarchy as we did in class for Employee, Hourly Employee, and Salaried Employee.

2. Design each class interface. The only behavior that I would like you to design is: a) proper constructors for each class, b) allowing for modification of only the data members that may need to be changed while the car is on the lot, and c) printing all car data.

3. Once you are done, show me. Before class is over, save your design as **PUNetIdCarDealership** and submit your design in the CS250 Drop Box.

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