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
- Drive Type (2-wheel or 4-wheel)

3. SUV

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

On a separate piece of paper, 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 Person, Baseball Player, and Teacher.

2. Write the interfaces for each class in your design. Do not worry about any behavior (i.e. getters and setters) other than the constructors for each interface.

3. Implement the constructor for Car.

4. Interesting question: Must each attribute have a get and a set method? Why or why not?