Programming Assignment 1

Create a class called Car, a Car should include three pieces of information as private instance variables:

* make (type String)
* model (type String)
* model year (type Int)

The Car class should also include:

* A constructor that sets the 3 instance variables based on information from the user
* Accessor (get) and mutator (set) methods for each instance variable.
* A toString method that displays the make, model, and model year of the Car.

Create a class called ElectricCar that inherits from the Car class, an ElectricCar should include the following two additional pieces of information as private instance variables:

* battery size (type Int)
* miles per charge (type Int)

The ElectricCar class should also include:

* A constructor that sets the 5 instance variables based on information from the user and a call to super.
* Accessor (get) and mutator (set) methods for each additional instance variable.
* A toString method that overrides the Car’s toString method and in addition to displaying the make, model, and model year of the Electric Car with a call to super, it displays the battery size and miles per charge.

Create a tester class called CarTester that will test the Car and ElectricCar classes. The tester class should do the following:

* **Prompt the user** for the make, model, and model year.
* Create a Car object using the constructor and input from the user.
* Call the toString method.
* **Re-Prompt the user** for the make, model, and model year.
* Use the set methods to set the make, model, and model year of the Car object.
* Use the get methods to display the make, model, and model year of the Car object.
* **Prompt the user** for the make, model, model year, battery size and miles per charge.
* Create an ElectricCar object using the constructor and input from the user.
* Call the ToString method.
* **Re-Prompt the user** for the make, model, model year, battery size and miles per charge.
* Use the set methods to set the make, model, model year, battery size and miles per charge of the ElectricCar object.
* Use the get methods to display make, model, model year, battery size and miles per charge of the ElectricCar object.