Create superclass called Car

1. It has parameters:

- name
- brand
- range

All parameters can be visible only inside the class (hint: encapsulation), still make sure you can use it later…

2. Create default constructor which will assign default values to parameters:

- name: “Default Name”
- brand: “Default Brand”
- range: 0.0

Print this values into the console “I am default car! ” + name etc.

3. Create parametrized constructor for name and brand.
4. Create method tank() – visible from everywhere with input (double) parameter and return double parameter. Inside the method check if input parameter is bigger than 0. If yes – parameter range should be equal inputPar * 5. Else print “Tank amount cannot be 0!” and return range should be equals to 0.
5. Create method range() without any input parameter or return type. This method should be visible from everywhere. It should print “car range is: - value of range KM”.
6. Create another method which should be visible only for subclasses and superclass. The name of the method should be accelerate() without any return type. Inside the method check if value of range is more than 0. If yes – print “You are accelerating!” Else "Make sure your tank is full!".

Create class (subclass) which will inherit from the Car class. Name of the class will be **ElectricCar**.

1. It has parameters:
   - name
   - brand

   All parameters can be visible only inside the class.

2. Create parametrized constructor for name and brand.
3. Inside the ElectricCar call superclass parameter range and multiply it by 5 (hint: use @Override keyword)
4. Inside the ElectricCar call superclass function range() and add print statement with "******Electric car******" into it, but show also the print from the superclass (hint: use @Override keyword and keyword super)
5. Inside the ElectricCar call superclass function tank() this method should only print "You cannot tank gas into the electric car!" – nothing else. Return will be input param * 0.
6. Inside the main create default object of the car.
7. Create 2 more objects of the Car class with input params for example car1, car2.
8. Fill the tank and call methods range(),accelerate(). One of the object should have tank 0 or minus value.
9. Create 2 objects of ElectricCar. Set range for the car and call methods range(), accelerate() and for one of the object also tank().

Goals:

- Learn the basics of the inheritance / working with access modifiers.
- Recapitulation of working with methods with working example.

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