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/*
 *      3. Write a concrete subclass named Car that extends the Vehicle class and
implements the Drivable
 * and Comparable interfaces.
 *      (i) The class should contain a String data field: model and an integer data
field: speed.
 *      Provide appropriate constructors and setter/getter methods for this
class.
 *      (ii) Override the equals method in the Object class. Two Car objects are
equal if their models are the same.
 *      (iii) Implement the steer() method to display "Turn steering wheel."
 *      (iv) Implement the howToDrive() method that returns a string "Step on gas
pedal."
 *      (v) Implement the compareTo method to compare two cars on the basis of
speed.
 */
public class Car extends Vehicle implements Drivable, Comparable<Car> {
    private String model;
    private int speed;

    public Car() {
        super();
        this.model = "unknown";
        this.speed = 0;
    }

    public Car(String color, java.util.Date dateMade, String model, int speed) {
        super(color, dateMade);
        this.model = model;
        this.speed = speed;
    }

    public String getModel() {
        return this.model;
    }

    public void setModel(String model) {
        this.model = model;
    }

    public int getSpeed() {
        return this.speed;
    }

    public void setSpeed(int speed) {
        this.speed = speed;
    }

    @Override
    public void steer() {
        System.out.println("Turn steering wheel.");
    }

    @Override
    public String howToDrive() {
        return "Step on gas pedal.";
    }
}

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@Override
public int compareTo(Car car) {
    return this.speed - car.getSpeed();
}

@Override
public boolean equals(Object o) {
    if (o instanceof Car) {
        return this.model.equals(((Car) o).getModel());
    }
    return false;
}

public String toString() {
    return "\nCar: " + this.model + "\tSpeed:" + this.speed + "mph\n"
    +super.toString();
}
}
```