SUMMARY

In this lab you will create a new class to represent a car.

IN-LAB

FIELDS

Create a class to model a car. A car will have the following attributes: make, model, year, VIN, mileage, price, MPG, and a photo. Decide on the correct data types for each attribute.

CONSTRUCTORS

Create a constructor for your class that takes all the attributes and sets up the fields.

METHODS

Add the following methods to your class

toString()

    a method to your class to return useful information about the object when it is printed. (see below)

viewPhoto()

    a method to show the photo of the car.

getAge()

    a method to return the age (in years) of the car. You can get the current year with Calendar.getInstance().get(Calendar.YEAR) Be sure to also import java.util.Calendar;
    Include this information in your toString method.

calculatePayments(int numYears)

    a method to calculate the monthly payment on this car for a term of numYears. Ignore interest. Include this information in your toString method.

DELIMITED CONSTRUCTORS

Create a second constructor that takes a delimited string, using commas, and parses it into the car object. See the example below.

TESTING

Here is an example for testing:

    Car c1 = new Car("Ford, Mustang, 1965, I3JF8VIJY930V89, 80000, 20000.00, 15, mustang.jpg");
    Car c2 = new Car("Dodge, Challenger, 1970, 9CJ2M9CH2498CN34, 75000, 25000.00, 10, challenger.jpg");
    Car c3 = new Car("Chevrolet, Camero, 1969, KCJS94N4N8FCN4W2, 120000, 22000.00, 12, camaro.jpg");
    Car c4 = new Car("Pontiac, GTO, 1968, 3NDNC9848HF8CN2W0, 90000, 18000.00, 17, gto.jpg");
OUTPUT RESULTS

Here is a sample run test calls from above. When you are finished, your output should look like this. Only the first car is shown.

> run Car
   A 49 year old 1965 Ford Mustang with 80000 miles for $20000.00. Monthly payments on a 5 year loan are $333.33.
   ...

GET CREDIT

Don't forget to show a coach what you've done before you leave so you get credit for attending and participating in the lab.

POST-LAB

Try adding a color field to the class. Rather than taking the color as a parameter, try to infer it from the photo.