

CS1410
Object Oriented Programming
Homework 2

Due: Sep. 12, 2012

The Assignment:

1. Governments and companies worldwide are becoming increasingly concerned with carbon footprints (annual releases of carbon dioxide into the atmosphere) from buildings burning various types of fuels for heat, vehicles burning fuels for power, and the like. Many scientists blame these greenhouse gases for the phenomenon called global warming.
 - Create three small classes unrelated by inheritance – classes Building, Car and Bicycle.
 - Give each class some unique appropriate attributes and behaviors that it does not have in common with other classes.
 - Write an interface CarbonFootprint with a getCarbonFootprint method.
 - Have each of your classes implement that interface, so that its getCarbonFootprint method calculates an appropriate carbon footprint for the class (check out a few website that explain how to calculate carbon footprints).
 - Write an application that create objects of each of the three classes, places references to those objects in ArrayList<CarbonFootprint>, then iterates through the Array-List, polymorphically invoking each object's getCarbonFootprint method.
 - For each object, print some identifying information and the object's carbon footprint.

Use dialog boxes for input and output when appropriate.

Administration:

- Turn your file into the Dropbox.

Be sure to name your file correctly and to keep a backup. Remember that late assignments will be penalized at a rate of 50% per week.

Students are expected to do their own work.
If programs turned in are so similar that it is obvious one has been copied from the other,
students involved will receive a zero on the assignment in question.

Students are encouraged to discuss this assignment, however, students are expected to turn in their own work. If assignments turned in are so similar that it is obvious one has been copied from the other, students involved will receive a zero on the assignment in question.

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