

Mini Exercise 2:

Create the following Java classes

- Vehicle
- Truck

Vehicle Class: 12 marks

Create a class named Vehicle

- 1) Create 3 instance variables with unique data types and unique accessibility levels to represent the following attributes of a vehicle

-color

-number of doors

-gas powered

Accessibility level choice is unimportant; however, the data type choice is.

Use camelCase when creating the instance variables

(3 marks)

- 2) Create 4 constructors with parameters + the default constructor **(5 marks)**
- 3) Create the necessary getters and setters for this class **(1 mark)**
- 4) Override the toString method to summarize all instance variables of the class **(1 mark)**
- 5) Create a method named isEcoFriendly. It has no parameters. It determines whether the Vehicle is two-doored and is not gas powered. **(2 marks)**

Truck Class: 15 marks

Create a class named Truck that is based on the Vehicle class

- 1) Create two additional instance variables with unique non-private accessibility levels and data types to represent the following attributes of a truck
-seats
-trunk space
(2 marks)
- 2) Create 8 constructors **(8 marks)**
 - a) The default constructor
 - b) 4 constructors that mirror the constructors of the Vehicle class
 - c) A constructor with 3 instance variables of Vehicle & seats instance variable of Truck
 - d) A constructor with 3 instance variables of Vehicle & trunk space instance variable of Truck
 - e) A constructor with 3 instance variables of Vehicle & both instance variables of Truck
- 3) Override the toString method to summarize all instance variables of the class **(2 marks)** **
**Please note, there are 5 instance variables to evaluate and/or summarize **
- 4) Override the isEcoFriendly method. In addition to its original behavior, it also determines if the Truck has at most two seats and has no trunk space. **(3 marks)**

Marking

Please submit all **.java** source files on Blackboard when you are finished.

Name the package however you desire.

Your prof will create a Runner for these classes. However, it is strongly recommended that you create your own before submitting the Mini Exercise