Introduction to Java

CS9053 Section I

Thursday 6 PM – 8:30 PM

Prof. Dean Christakos

Feb 15th, 2025

Due: Feb 21st, 2025 11:59 PM

**Assignment 4**

Part I: Inheritance

1. Here is a class hierarchy diagram for library items. I have added the fields but you can figure out the getters and setters and constructors for yourself.

A diagram of a vehicle

Description automatically generated

There should be appropriate getters and setters for each of these fields as well as toString() methods. There should also be equals() methods and in this case, the equals method should also check the id

Part II – Arraylists

1. Now, remember the RentalAgency from the last problem set?

A screenshot of a computer

Description automatically generated

Reimplement this (you can use as much of your old code as you want) to use ArrayLists that stores Vehicle objects instead of RentalCar objects. (anything referring to “RentalCar” should be replaced with “Vehicle” in the code).

rentVehicle, returnVehicle, and removeVehicle should also have overloaded implementations that take a Vehicle argument as well as an Id (and, as appropriate, days) argument.

Create some objects and show that it works.