**2501 Lab #9 #9 #9 ...**

**Purpose:**

In this lab will explore Inheritance by developing a data class hierarchy.

**Task:**

You will identify at least five items in your home that share common fields while also having unique features, and turn those items into a class hierarchy. The items you choose must share no less than four common attributes, and each must have at least two unique attributes. You may not choose anything related to Vehicles as we have already done that in class with our demonstration.

**Additional:**

Once the hierarchy is complete you will develop a class that will support a collection that can store an unlimited number of your items. This class will be named appropriately to reflect the kind of items you are going to store. You can use only one collection to store all the different items you will be creating.

The “storage” class will support method implementations to add, remove, display, and obtain the number of items in the collection.

**Finally:**

A driver class will be provided that will create instances of all the item types you have created and invoke all the methods of your storage class.

You must implement the appropriate validations for all parameters. Constructor will throw IllegalArgumentExceptions when bad values are passed in.

Do this lab with your partner. Create the identical code as your partner, and show your instructor before the start of the next class. Keep these papers and bring them to the final exam, to get your marks:

Instructor Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_