ITEC 3150, Homework #1 - Intermediate Programming Review

Spring, 2016

Due Date: no later than 11:59 PM on Sunday, January 24, 2015 – NOTE: Sunday deadline is for your convenience. I will not answer questions after 5 PM on Friday, January 22, 2015.

Coding standards note: The coding standards are in a document in a D2L module titled Coding Standards. See Grading Criteria for points lost if not followed.

Competencies being graded:

1. Ability to read from a text file
2. Ability to use inheritance to create a set of subclasses all inheriting from a common parent class.
3. Using polymorphism to create and maintain a single list of the subclasses
4. Use System.out.println and Scanner to create a user friendly interface into your program
5. Ability to read an English language problem description and design a multi class solution in Java
6. Ability to follow given coding standards- in D2L content under Coding Standards.

Create a program to track the clients of a veterinarian’s office. You will need to handle cats, dogs and other types of pets. All pets have a name, an owner’s name, an age and a type (cat, dog or other). In addition, dogs have a breed and a color. Cats have an indication of long or short haired , indication of clawed or declawed, and a color. Other pets have a type (snake, bird, lizard, hamster, etc) and an indication of whether or not they require special handling.

Your program will begin by reading a text file (created by you, in a format designed by you) with a minimum of two pets per type to create a list (think ArrayList) of the pet clients. That means at a minimum, two dogs, two cats and two other pets Display the client list in a user friendly format, ask if the user would like to find or delete a pet by name. When user is done viewing and deleting, save the changed list back to the original text file (overwriting it). Extra credit for adding new pet via user interface in a user friendly manner (up to 10 pts).

Interface to program may be textual or graphic (I don’t expect graphics yet!). The program must use inheritance

User interface must be minimally user-friendly.

Turn in: All Java files – should be a minimum of 4(four) separate classes. More is fine. Text file containing your minimum 6 pets.

Grading Criteria

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| Compiles: | 10 |
| Correctly uses inheritance for pets | 20 |
| Correctly lists client lists | 20 |
| Correctly finds (or doesn’t find) pet | 15 |
| Correctly reads text file | 10 |
| Correctly writes text file | 10 |
| Meets coding standards | 15 |