COMP 1409 Lab 8-a (2 points)

Create a class called Cat that has these features:

- instance variables for name, year of birth, and weight in kilos.
- a default constructor and a second constructor that expects all three values to be passed as parameters. Call the "set" methods from both constructors.
- "get" and "set" methods for all instance variables. The "set" methods must validate their parameters. Name must not be null. Year of birth and weight must not be negative. Display an appropriate error message for an invalid parameter and do not use it to set the field.

Create a class called Cattery that has these features:

- two instance variables: an ArrayList of Cat and a String to hold the name of the business, e.g. "Puss in Boots Cattery".
- a constructor that initializes the instance variables. The name of the business should be passed as a parameter to the constructor.
- a method that adds a new Cat to the collection. Here is the method signature: **`public void addCat(Cat newCat)`** // To use this method, first create a Cat object to be added. Click on the object when invoking the method.
- a method that takes an int parameter and displays on the screen the details (name, year of birth etc.) of the Cat stored at that index position. This method must ensure that the parameter is a valid index position and display an error message if it is not.
- a method that takes an int parameter and removes from the collection the Cat stored at that index position. This method must ensure that the parameter is a valid index position and display an error message if it is not.
- a method that uses a for-each loop to display the names of all the cats in the cattery, e.g.

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The current guests in Puss in Boots Cattery:
Garfield
Furball
Fang
Grover
Silkie
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Demonstrate your completed project to your instructor or TA before leaving the lab and be sure we have checked it off. A suggested solution will be given during the next class and labs that have not been checked off will not receive any points.