(30 pts) Approx. 2 days

The last part of our unit will ask you to create a variety of classes that could interact with each other in simple ways. You've been asked to create a cataloging program that will help the Lathrop administration keep track of animals, supplies, and employees in our brand new Lathrop Zoo! To do this, you'll need to make a program that fits the following criteria:

1. Start – as usual – by brainstorming different ideas for your Lathrop Zoo. What kinds of animals, supplies, or employee types are there to make classes for? What meaningful variables might they have?
2. Create your program such that:
    a. You have at least 5 different animal classes (representing different kinds of animals).
    b. Each animal class should have at least 4 private class variables of at least 2 different types
    Pro Tip: pick variables that might be related to the supplies you'll want to use
    c. Your animal should have a method called "makeNoise()" that causes it to print the proper sound
    d. Your animal classes all have a toString() method.
    e. Your animal should have at least 2 other methods (with any name) that logically change the class variables for that animal.
    f. Your animal classes all have the proper setters/getters
    g. You have at least 4 different zoo supply classes (representing different kinds of supplies).
    h. Each supply class should have at least 3 private class variables of at least 3 different types
    i. Your supply classes have all the proper setters/getters
    j. Your supply classes all have a toString() method.
    k. You have at least 2 different employee classes (representing different kinds of zoo employees)
    l. Each employee class has at least 3 private class variables of at least 3 different types
    m. Your employee classes all have the proper setters/getters
    n. Your employee classes each have 2 methods that take a zoo animal object AND a zoo supply object and use them to change proper instance variables. For example, you might have one employee take an animal and some food in a method called feedTheAnimal(Animal a, Food f). In this method, the animal's hunger variable might go down, as well as the quantity variable of the food.
    o. Make a Driver (or Runner) class to test your different methods and make sure your classes, objects, methods, and variables are all working like you expected!
3. *Log 4: Object Oriented* The last part of our unit is to write a full page response about object oriented design.

Part 3: Tasks	*5 points*	*4-3 points*	*2-1-0 points*
LHS Zoo Brainstorm Notes	+ You wrote a full page of brainstorms, ideas, and notes about how to structure your program	- You wrote less than a page - Your notes do not outline a coherent plan	- Your notes are lacking or missing - There is no plan for your program
	15-10 points	*9-5 points*	*4-0 points*
Create Your LHS Zoo Program	+ You created the LHS Zoo program that meets all the criteria listed above. + Your LHS Zoo Program works as intended	- Your LHS Zoo program does not meet some criteria - Your LHS Zoo program mostly works	- Your LHS Zoo program does not work at all
	10-8 points	*7-4 points*	*3-0 points*
Log 4: *Object Oriented Design*	+ You wrote a complete page in your engineering notebook	- You wrote less than a full page	- You wrote less than half a page