**Lab/homework 9:**

**Homework:**

Complete all questions we haven’t finished during class.

Read the unit summary at:

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/ooSummary.html>

Complete the multiple choice questions at:

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/Exercises.html>

**Class work:**

1. Complete question in textbook chapter 9.1.1 – 9.1.3

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-1-inheritance-day1.html>

1. Complete questions 9.1.6 - 9.1.8 in the textbook:

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-1-inheritance-day2.html>

1. Complete 9.1.6. groupwork Programming Challenge : Online Store

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-1-inheritance-day2.html>

1. Do question 9.2.1 in the textbook:

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-2-constructors.html>

1. Complete question 9.2.2 in textbook:

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-2-constructors.html>

1. Complete 9.2.1. groupwork Programming Challenge : Square is-a Rectangle

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-2-constructors.html> HW

1. Complete questions 9.3.3 and 9.3.4 in the textbook

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-3-overriding.html>

1. Complete question 9.6.1 – 9.6.4

<https://csawesome.runestone.academy/runestone/books/published/csawesome/Unit9-Inheritance/topic-9-6-polymorphism.html>

**lab:**

**Part 1:**

1. Create a class called MyPetDog, use private instance variables.
2. Create a subclass called MyPetChihuahua
3. Override a method from MyPetDog in MyPetChihuahua
4. Create a method in MyPetChihuahua that needs access to instance variable from MyPetDog, what happens?
5. Create 2 more classes for pet dogs that extend from MyPetDog, create a different bark for each class.
6. In the main Method of your program, create an array list that stors objects of type MyPetDog. In the list Store objects of different dogs that extend from MyPetDog.
7. Use a for each loop to have all the different dogs bark!

**Part 2:**

1. Create a class of pets.
2. Create subclasses of different types of pets. (dogs, cats, bunnies, turtles, fish etc.)
3. Create a program where you can ask the program to have the pets make noise, is the use inputs the world “all”, all pets will make a noise, if the use inputs the word “random”, a random pet will create a noise, If the user inputs a name of a specific animal that animal will will make a noise (say the input is “dog”, the code will output “woof”).