

In class exercises for Class 06 on 02.20.2019

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Continue to use your notebook from the lecture, but please insert a text cell and a note to indicate where your problem set begins so that I can easily find your answers.

Please also number your answers with a short comment like: #1a, 1b...3a...etc.

Do all work in your notebook, and make sure to run each cell of code before you move on.

- 1) Define a class that defines a bird. Each bird should have the following attributes (fields): - flight
 - aquatic (yes or no)
 - songbird (yes or no)

You should also track the total number of bird objects that are created and warn the user if they've created too many birds after the 5th instance.

- 2) Create a base class called Sealife with a field indicating if the animal is pelagic. The base class should have a method that reports the attributes of the object.

Then create two subclasses, one for fish and one for mammals.

The fish sub class should have a field indicating if it is (or is not) electromagnetic.

The mammal sub class should have a field indicating if it is a filter feeder or a predator.

Then - create two sub classes of mammal called Aquatic and Terrestrial.

The Aquatic sub class should have a field indicating whether it's a whale or something else (like a dolphin).

The Terrestrial sub class should have a field indicating whether it is able to swim in freshwater or not.