

Animal Class Lab

Objectives: Complete a simple (silly) class, with a constructor setting attributes, and methods, including a `__str__` method, and separate testing code.

1. Complete the simple class `Animal`. The bullets below name and describe the instance variables, constructor, and methods you need to write. What parameter(s) are needed for each of these methods?
 - An `Animal` has a `name` and a `gut`. In our version the `gut` is a list of strings describing the contents, in the order eaten. A newly created `Animal` gets a `name` from a parameter passed to the constructor, while the `gut` always starts off *empty*.
 - An `Animal` has a `greet` method, so an animal named “Froggy” would say (that is, print)

```
Hello, my name is Froggy.
```

- An `Animal` can `eat` a string naming the food, adding the food to the `gut`. If Froggy eats “worm” and then “fly”, its `gut` then has value `['worm', 'fly']`.
- An `Animal` can `excrete` (removing and printing what was *first* in the `gut` List). Recall the method `pop` (second version) in List Methods ([../Lists/ListMethods.html#list-methods](#)). Print the empty string, “”, if the `gut` was *already empty*. Following the Froggy example above, Froggy could `excrete`, and “worm” would be printed. Then its `gut` would then have value `['fly']`.
- A `__str__` method: Make it return a string in the format shown below for Froggy, including the `Animal`'s name:

```
“Animal: Froggy”
```

Try this first, and note the elaborated version below.

2. Add code outside the class, testing it: Create a couple of `Animals` and visibly test all the methods, with enough explanation that someone running the test program, but *not* looking at the code, can see that everything works.
3. Possible elaboration: Modify `__str__` so if Froggy had “worm”, “fly” and “bug” in the `gut`, the string would be:

```
“Animal: Froggy is digesting worm, fly and bug.”
```

with a comma separated list of the `gut` contents, except use proper English, so the last separator is “ and ”, not “, ”. If the `gut` has nothing in it, list the contents as “nothing”:

```
“Animal: Froggy is digesting nothing”
```

Extend your tests if necessary.