

<https://github.com/kzgreene/LizardClass.git>

Lizard Class

This class (Lizard) is template that allows for a lizard to be created. Each of the methods define different aspects of the lizard, such as its number of offspring and how many times it has shed that year.

The class variable is the lizard's set color of green. This is a class variable that does not change dependent on the lizard.

The data variables are name and continent. They are both private. "self.__name" is the inputted name that the user chooses and is the name of the lizard. "self.__continent" is the inputted continent that the user chooses the lizard's origin to be.

The `__init__` method is the constructor method and is the first function in the class, obviously. It takes in the name and continent and then sets them as private data variables described above.

The set continent method takes in self and a continent. The method makes it so that the user can only pick from specific continents, all but Antarctica because lizards are not found there. If the user tries to enter Antarctica or anywhere else that is one of the not specified continents, an error message is displayed and gives them the continents they can choose from and then a Value Error is raised. If the inputted continent is one of the ones given then it sets it equal to the data variable self.__continent.

The get_continent method returns self.__continent. It only takes in self.

The set name method takes in self and a name. Then it sets the inputted name as self.__name.

The get name method takes in self. It returns self.__name.

The method offspring takes in self. Depending on what the inputted continent is, a random integer will be chosen between a set range, using the random module. The method returns the integer as the number of offspring.

The method shed takes in self and a month. Because a lizard sheds once a month, a for loop iterates through all of the months, incrementing the shed counter each month and stops at the inputted month. It returns the total amount of sheds it had done that year until that month.

The `__str__` method returns a string representation of the information in the constructor method and the class variable.

Demo

The demo of the is a data base shell where the user can input a chosen name and origin of a lizard and month, then get a variety of information depending on what they want to know. They can pick from multiple different commands and get back a statement using the methods in the class and varying on what information they inputted. This is an interactive way to display the information within the shell and highlight its different methods.

How to use-

Open the file in a terminal. Input a name, continent, and month. You will then enter the database shell and can ask a few different commands. Type in "basic", "shed count", "offspring", "help" or "exit".