

CS0008: Intro to Python
Weekly Assignment 11
Inheritance

Part 1: Creating the Employee class and Owner subclass (7 points)

You will need the Employee class from Assignment 10 in order to complete this assignment so please first create the Employee class from Part 1 in Assignment 10. Once you have created the Employee class, create a new class called Owner that inherits from the Employee class. Note that an owner still works for the company and therefore could still be thought of as an Employee. The Owner class should have the following additional methods:

An `__init__(name, ID, emp, percent)` method that initializes the Owner and Employee attributes. `name` is the name of the owner, `ID` is the ID of the owner, `emp` is a list of employees on the payroll, and `percent` is the tax rate (a whole number and not decimal e.g. 7 for 7%) at which the owner is being taxed. Hint: Remember the first thing an init function of a subclass should do.

An `add_to_payroll(emp)` method that adds `emp` to a list of employees on the payroll.

A `remove_from_payroll(emp)` method that removes `emp` from the list of employees on payroll if the employee *is on the payroll*

A `is_on_payroll(emp)` method that checks if `emp` is on the company payroll and should return `True` (if the employee is on payroll) and return `False` (if the employee is not on payroll)

A `get_payroll()` method that returns a list of everyone that is on the payroll

A `set_tax_rate(percent)` method that sets the tax rate at which the owner is being taxed.

A `get_tax_rate()` method that gets the tax rate at which the owner is being taxed.

A `__str__()` method that returns the state of the object.

Part 2: Testing the Owner class (3 points)

Test the Owner class in a main() function by creating an Owner object and testing all methods from the Owner class and Employee class. Basically, you should make sure to call all methods and print out everything necessary to verify that the Owner and Employee classes are working correctly. For example, after creating an Owner object, you should call `add_to_payroll(emp)` and then print out the result of `get_payroll()` to confirm that your functions are working correctly. You do not need to have the user enter in any manual information because in this part we are simply testing to make sure we coded things correctly.