IT 166 Assignment 3 (30 points)

Due: October 14 at 11:55 PM

class Person(object):

numPerson = 0

def \_\_init\_\_(self,firstName,lastName):

self.firstName = firstName

self.lastName = lastName

def fullName(self):

print self.firstName +' '+self.lastName

1. Given the Person class, define an Employee class that is inherited from the Person class.

The constructor of the Employee class calls the Person's constructor method to initialize first and last name.

The constructor also initializes information such as pay and employID.

The Employee class has a class variable, numEmployee, to count the number of Employee instances.

(8 points)

2. Define a Programmer class that is inherited from the Employee class.

The constructor of the Programmer's class initializes a variable called proLang, which indicates the programming language that is used by a programmer.

The constructor of the Programmer's class calls its parent class's constructor for the initialization of the other parameters.

(8 points)

3. Define a Manager class that is inherited from the Employee class.

The constructor of the Manager's class initializes a variable called progList, which is a list of programmers that are currently managed by a manager. The progList is a default argument that has a default value of None. By the default value, the constructor set progList as an empty list.

The constructor of the Manager's class calls its parent class's constructor for the initialization of the other parameters.

The Manager class has two instance method: addProgrammer and removeProgrammer. The addProgrammer method takes a programmer object as its argument and adds it into the progList; The removeProgrammer method removes the first programmer in the progList if the list is not empty. If the list is empty, it does nothing.

(10 points)

4. Provide the function calls that do the following: (4 points)

3 function calls to create 3 programmers, with arbitrary names and programming languages

1 function call to create 1 manager with an empty programmer list.

3 function calls to add the 3 programmers to the manager's programmer list.

1 function call to remove the first programmer from the list.

Requirements:

1. Have all the classes and the function calls saved in assignment3.py
2. Make sure to define the classes before writing the function calls