
Programming Assignment 4 (80 points)

Due date: July 25, 2016 at 11:59 PM

Overview

This assignment will give you experience on the use of classes.

Part 1: Employee Class [40 points]

Write a class named Employee that holds the following data about an employee in attributes: name, ID number, department, and job title.

Once you have written the class, write a program that creates three Employee objects to hold the following data:

Name	ID Number	Department	Job Title
Susan Meyers	47899	Accounting	Vice President
Mark Jones	39119	IT	Programmer
Joy Rogers	81774	Manufacturing	Engineer

The program should store this data in the three objects and then display the data for each employee on the screen.

Name the source code files “Employee.py” and “EmployeeDemo.py”

Sample run:

```
Employee 1:
Name: Susan Meyers
ID number: 47899
Department: Accounting
Title: Vice President

Employee 2:
Name: Mark Jones
ID number: 39119
Department: IT
Title: Programmer

Employee 3:
Name: Joy Rogers
ID number: 81774
Department: Manufacturing
Title: Engineer
```

Part 2: Letter Class [40 points]

Provide a class `Letter` for authoring a simple letter. In the constructor, supply the names of the sender and the recipient:

```
def __init__(self, letterFrom, letterTo)
```

Supply a method

```
def addLine(self, line)
```

to add a line of text to the body of the letter.

Supply a method

```
def getText(self)
```

that returns the entire text of the letter. The text has the form:

```
Dear recipient name:
blank line
first line of the body
second line of the body .. .
last line of the body
blank line
Sincerely,
blank line
sender name
```

Also supply a driver program that prints the following letter. Construct an object of the `Letter` class and call `addLine` twice.

Name the source code files “`Letter.py`” and “`LetterDriver.py`”

Sample run:

```
Dear John:
```

```
I am sorry we must part.
```

```
I wish you all the best.
```

```
Sincerely,
```

```
Mary
```

Extra Credit: RetailItem Class [20 points]

Write a class named *RetailItem* that holds data about an item in a retail store. The class should store the following data in attributes: item description, units in inventory, and price.

Once you have written the class, write a program that creates three *RetailItem* objects and stores the following data in them:

	Description	Units in Inventory	Price
Item #1	Jacket	12	59.95
Item #2	Designer Jeans	40	34.95
Item #3	Shirt	20	24.95

Name the source code file “RetailItem.py” and “RetailItemDemo.py”

Sample run:

```
Retail Item 1:
Description: Jacket
Units in inventory: 12
Price: $59.95

Retail Item 2:
Description: Designer Jeans
Units in inventory: 40
Price: $34.95

Retail Item 3:
Description: Shirt
Units in inventory: 20
Price: $24.95
Sample run 2:
```

Submission instructions:

1. README.doc (you must edit this and insert your own screen shot or a sample run of each program)
2. Include the standard program header at the top of your Python files.
3. Please be sure to use the specified file name.
4. You need to label your assignment with your first name initial, last name, and the name of the assignment. Example: hibrahim_assignment4.zip
5. Zip the files to upload to Canvas (hibrahim_assignment4.zip).
6. Submit the zipped file containing the following files:
 - a. Employee.py and EmployeeDemo.py.
 - b. Letter.py and LetterDriver.py
 - c. README.doc
 - d. RetailItem.py and “RetailItemDemo.py (extra credit)

Standard program header

Each programming assignment should have the following header, with italicized text appropriately replaced.

```
'''
```

```
* Program #: Insert assignment name  
* Programmer: Insert your name  
* Due: Insert due date  
* CS 3A, summer 2016  
* Description: (Give a brief description for Assignment4)
```