**INSY5336-HOMEWORK 4**

**Due: April 16, on/before midnight CST**

**Delivery method: Blackboard**

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Write a class named **Employee** that holds the following data about an employee in attributes: *name*, *ID\_number, department,* and *job title.*
* Create a UML diagram for Employee class.
* Create a program that stores Employee objects in a dictionary. Use the employee ID number as the key. The program should present a menu that lets the user perform the following actions:
* Look up an employee in the dictionary
* Add a new employee to the dictionary
* Change an existing employee’s name, depart, and job title in the dictionary
* Delete an employee from the dictionary
* Quit the program

When program ends, it should pickle the dictionary and save it to a file. Each time the program starts, it should try to load the pickled dictionary from the file. If the file does not exist, the program should start with an empty dictionary.

*Resources:*

* contact.py (chapter 10)
* contact\_manager.py (chapter 10)
* customer.py, car.py, servicequote.py, Figure 10-13, Figure 10-14, Figure 10-15 (chapter 10)

Note: Please name each of your program in this style: Lastname\_HW4.py,

inside a folder (Homework\_4\_Lastname), zip the folder and upload to blackboard.

Thank you.

## Homework Submission

1. You are required to submit your assignments electronically in Blackboard. Just click on the Assignment listing under the Assignments link. Download the assignment, complete the assignment, and upload your file. The link is available up to the due time/date.
2. You will follow the instructions for submission as specified on the homework description; i.e. naming conventions, zip conventions, etc.
3. Make sure to write your full name as a comment at the very beginning of each .py file submitted for grading.
4. Only homework submitted through Blackboard will be graded. Grades will be posted in Blackboard.

## Homework Grading

1. If your program does not compile, you will not receive more than 20% of the maximum points.
2. If your program compiles but does not execute, you will not receive more than 35% of the maximum points.
3. If your program compiles and executes yet does not give the required output, you will not receive more than 50% of the maximum points.
4. You will get the maximum points only if your program compiles properly and executes according to the requirements specified in the assignment.
5. You must name the .py files as specified or they will not be graded.
6. If you use Python constructs on assignments that we have not yet discussed in class, 20 points will be deducted.
7. If you do not adhere to our coding standards, 15 points will be deducted.