***BE 1600***

***Introduction to***

***Programming and Computation***

***Python Lab***

**Lab 13**

20 points

**Due by the end of the lab session**

Assignment Objectives:

To use Python dictionaries to store associative data

*Solution for this lab will not be posted on Canvas; however, the solution of any of the lab problems can be discussed in the class upon request of a student.*

All labs must be submitted by the Canvas. **No email or hard copy** is accepted. You must follow the following format:

1. Submit your file to the Canvas. You must submit your file on time; otherwise, you will receive zero.
2. You can upload your file as many times as you like. Only the last attempt counts because the last file you uploaded is the only file your instructor will see.
3. There will be several modules on the Canvas. You need to upload your file using the correct module on the Canvas.
4. Name the lab file: *Lab (labt number)*
5. To upload your file(s):

* In Course Navigation, click the ASSIGNMENTS module.
* Click the title of the assignment.
* Click the **Submit** Assignment button.
* Add **File**. ...
* **Submit** Assignment. ...
* View **Submission**.

*It is your responsibility to make sure that the file is uploaded correctly. If you uploaded a wrong file, you receive zero; files will not be accepted after due date even if you have a prove that the file is created before the due date.*

***Make sure you review the Cheating & Plagiarism policy on Canvas.***

Write **function intersect** that accepts two dictionaries whose keys are names and whose values are scores and returns a new dictionary containing the key/value pairs that exist in both dictionaries.

Write **function union** that accepts two dictionaries whose keys are names and whose values are scores and returns a new dictionary containing all key/value pairs in both dictionaries.

Write a **main function** that prompts the user twice for five names with 5 scores and stores them in two separate dictionaries. Function main prints the two dictionaries in a tabular format, the dictionary that returns from function intersect, and the dictionary that returns from function union.

Here is a sample run:

Enter 5 names with grades:

Alyssa 100

Ste 80

Jeff 88

Kim 52

Sylvia 95

Enter another 5 names with grades:

Jeff 88

Stef 80

Brian 60

Lisa 83

Sylvia 87

Name Age

Alyssa 100

Ste 80

Jeff 88

Kim 52

Sylvia 95

Name Age

Jeff 88

Stef 80

Brian 60

Lisa 83

Sylvia 87

intersection of dict1 and dict2 = {'Jeff': '88'}

union of dict1 and dict2 = {'Alyssa': '100', 'Ste': '80', 'Jeff': '88', 'Kim': '52', 'Sylvia': '95', 'Stef': '80', 'Brian': '60', 'Lisa': '83'}