Info 6079: Security Application week 8 LAB 7

FANSHAWE School of Information Technology

Lab week 8 objective:

- Creating and working with classes
- Defining methods in class
- Working with class and instance variables
- To work with encapsulation

Lab Time:

You will be required to submit the slides for this lab to drop box
due date – **July 3, 2023 11:45pm**

Late submission will result in loss of grade.

General comments:

- Make sure that you use proper spaces needed in the blocks: i.e. classes and their methods'
- Download file named lab_week8.py from the FOL
- add your student name, ID
- File has 2 classes header; your goal is to create the body for the 2 labs

Start of Lab

- develop two (2) classes for the lab, named STUDENT and PROGRAM
- The header of these two files is set in a file, lab_week8.py, located on FOL.
- download this file.
- the goal of this lab is to create the blueprint for these classes by adding modules and variables.
- When writing methods, you need full method heading including parameters.
    - e.g. myModule(variable1, var2)

Info 6079: Security Application week 8 LAB 7

FANSHAWE School of Information Technology

MARKING

Item		Marks
1	File Header info	2
	STUDENT	
	Class Variable private Student ID, Name	2
2a	Constructor __init__	1
2b	Class Student_ID	2
2c	Class User_Indo()	1
	PROGRAM	
1a	Constructor Class Program	1
1b	Create 2 lists	2
2	Constructor AddCourse()	2
3	Function that returns the program name	1
4	Function that returns the list of courses	1
5	Function that adds student to program	1
6	Function that returns the student name	1
	Completion	
1	Add ISM to Program	2
2	Add Course “python” to Courses	2
3	Create a Student object	2
4	Add a student to a program	2
5	print the student list of the program	2
6	print the course list of the program	2
	Submit file per naming convention (e.g. hbh_lab_week8.py)	1
	TOTAL Marks	30

Info 6079: Security Application week 8 LAB 7

Remember that the fallowing requirements for each of the classes:

Student:

1. Have a class variable that would hold the id numbers of the students, it should be private.

2. Create the 3 required functions:
    a. Create Constructor _init__ () that saves the first name and last name to private instant variable.

    b. create_student_ID()
        i. make the function private
        ii. Creates a unique password each student being added
        iii. Uses the initials of the student and the order number of the student.
            1. If Bob Smith is the first student add then his id is BS1 and if Jan Snow is the second student add her ID would be JS2

    c. User_info()
        i. Returns the full name of the student as a string.

Program:

1. Create the constructor for the Class program
    a. Should save the name of the program as an instant variable

    b. Creates 2 lists: one for courses and second one for students. They should both be instance or private variables.

2. Create a function that would allow to add a course to the program

3. Function that returns the program name

4. Function that returns the list of courses

5. Function that adds student to program

6. Function that returns the student name

Info 6079: Security Application week 8 LAB 7

Once completing with the class:

1. Create an object of a program.
   Add "ISM" for the ISM program.
2. add a course to the program just created.
   i.e. project1.addcourse = "Python"
3. create a student object
4. add student to program. Using the function created
5. print the student list of the program
6. print the course list of the program

Lab Scoring:

Lab is graded out of 30 marks for 2.5% of your final grade.

Submitting files in zip format will result in 0.

Don't forget to submit the code.

Submit:

You need to submit 1 file

Due November 2, 2022 11:50pm

(your initials)_lab_week8.py

e.g. hbh_lab_week8.py