CPS 280S Home Work 3

Assigned: Tuesday, February 23, 2016
Due: Friday, March 4, 2016

1   Description

You will need to submit your program fille to Blackboard `Homework 3`

2   What to Do

1. Create a new Python project

2. Create a Python file called hw3_globalid[1] [2] [3]

3. Create a Python file called test_hw3[2] [3]

4. Run each of the files with empty contents to create the correct run configurations

5. Copy the contents from the test_hw3.py file from the `Assignments` area on Blackboard

6. Download the Courses, Students and CourseEnrollment files from the `Assignments` area on Blackboard and move them to your project folder

   The program should do the following:

   (a) Declare a Class named Course[2] that should

   - Have the instance attributes
     - str_course_designator[4] [2]
     - str_course_meeting_times[4] [2]
     - li_enrolled_students[5] [2]
   - Have an initializaion method that takes at least the designator of the course and sets the str_course_designator instance attribute [6]
   - Have decorated getter and setter methods for all instance attributes
   - Have a string conversion overload method

   (b) Declare a Class named Student[2] that should

   - Have the instance attributes
     - str_first_name[4] [2]
     - str_midle_name[4] [2]
     - str_last_name[4] [2]
     - str_student_id[4] [2]
     - li_enrolled_courses[7] [2]

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[1]You should replace globalid with your global id.
[2]Capitalization is important.
[3]The .py extension will be added automatically.
[4]This instance attribute should be a string.
[5]This instance attribute should be a list.
[6]The default value of str_course_designator should be tex001.
[7]This instance attribute should be a list of Course objects.

- Have an initializaion method that takes at least the first and last names of the student and sets the str_first_name and str_last_name instance attributes

- Have decorated getter and setter methods for all instance attributes

- Have a string conversion overload method

(c) Delare a function named main[2] that should

- Only run if the program has been called directly and not as an import to another script

- Read the contents of the files

  - CourseEnrollment[8] [2]

  - Courses[9] [2]

  - Students[10] [2]

- Use the data from each file to create Course and Student objects

- Assign values to each of the objects instance attributes based on the data read from the files[11]

- Write every students schedule to a file named Schedule [12] [13] [14] [2]

  See the next page for an example of the formatting for the file. [15]

7. Run test_hw3 to make sure your program passes all of the tests

8. Submit your hw3_globalid.py file on Blackboard [16]

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[8]This file contains a list of courses and the student ids for students registered in each course.

[9]This file contains a list of courses and the times they are scheduled to meet.

[10]This file contans a header and a list of student First names Middle Names Last Names and Student IDs.

[11]If the files do not contain the data for a specific attribute it should be set to the null variable None.

[12]The schedules should be sorted by a concatenation of last name and first name.

[13]The students courses should be sorted by course designator.

[14]The sorts shoud be case insensitive.

[15]There will be a single space after the last name if no middle name is present.

[16]Do not submit any other files.

```
Name:Tharen, Bria
StudentID:thare1b

AR00:M,W,F 8:00-8:55
CS01:M,W,F 11:00-11:55
CS02:M,W   12:00-1:45
PH05:T,Th  3:00-4:45

cut here
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Name:Tiure, Jaba Desilijic
StudentID:tiure1jd

AR00:M,W,F 8:00-8:55
CS01:M,W,F 11:00-11:55
EN02:T,Th  9:00-10:45
PH03:T,Th  1:00-2:45

cut here
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```