Lab 3

Start Assignment

- Due Tuesday by 11:59pm
- Points 100
- Submitting a text entry box or a file upload
- Available until Apr 28 at 11:59pm

Please complete Lab 3 by the assigned due date.

Attachments

Lab03.pdf (https://extcanvas.ucsd.edu/courses/23830/files/15023093?wrap=1) ↓
(https://extcanvas.ucsd.edu/courses/23830/files/15023093/download?download_frd=1)

Notes:

- The student list does not belong in the Student class because the class represents a single student. Any collection of students should be defined in your main code block.
  - Here's the reason - let's say you want TWO or more distinct lists of Student objects. How could you do that if the class only allows ONE? By defining the list outside the Student class, you can define as many as you want!
- The same goes for printStudents().
- __str__ functions should always return a string and never print directly from the method itself.
- Student's gpa() member is a function, not a variable/property, so when you access it don't forget the parentheses ().
  - gpa() is a "just-in-time" calculation, which means it should not change any state (save results to a field), just return the result.
- Don't forget the formatting you learned in the first lab when defining __str__.
- Dictionaries contain a keys() methods, so you can use that to get a list of the course names from a student object's courses dictionary.
- To create an empty set, use the set() initializer: mySet = set()

Rubric - Lab 3

Criteria	Ratings	Pts
Part I: __init__() implementation		5 pts
Part I: __str__() implementation		10 pts
Part I: __repr__() implementation		5 pts
Part I: gpa() implementation		10 pts
Part I: addCourse() implementation		10 pts
Part I: addCourses() implementation		10 pts
Part I: header() implementation		5 pts
Part I: Extra Credit: reduce() used in gpa() Use the reduce function to calculate the GPA, specifically the total point sum. 5 pts.		0 pts
Part II: List population		10 pts
Part II: printStudents() implementation		10 pts
Part III: Each query worth 5 points		25 pts
Part III: Extra Credit: Query 3 set comprehension Use only a set comprehension to solve query 3. 5 pts.		0 pts
		Total Points: 100