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Foundations of Programming, Python

Assignment 07

https://github.com/SeattleAaron/IntroToProg-Python_Mod07

Repeating Labs Examples

Introduction

For this week's module assignment, I expanded last week's program by incorporating examples of class inheritance, utilizing getters and setters, and storing data as a list of objects. While working through this week's lab, it wasn't easy to grasp what the new code was doing when it was added to the existing code base. However, after reviewing external sources and working through the labs a second time to complete the assessment, the concepts this week started to make more sense.

Inheritance

There are two examples of inheritance in this week's assignment. The first is the Student() class, inheriting first_name and last_name from the Person() class. This Person is made the superclass of Student by passing the name of the class to Student, Student(Person), and using the super function to call the constructor of the superclass, super.first_name and super.last_name. The second example was overriding the __str__, magic method. The default string output is the object's memory address, and we can change it by overriding the inherited method.

Getters & Setters

I spent a while debugging the setter I applied to the course_name. I had limited the course_name to < 12 characters, but when I tested it, I was able to exceed the limit. I eventually determined that I had not created the instance correctly in the input_student_data() method in the IO() class. After reviewing Lab 2, I was able to resolve the problem.

List of Objects

I also had to go back to Lab 1 to review how to convert JSON data into a list of objects and then reverse the process to save the data back to JSON. We achieved it by using a temporary list of dictionaries to store the data before using the list to create objects.

Summary

Overall, this week, I gained a better understanding of the behavior of my classes. Additionally, I played with Django and found it a little easier to understand compared to the last time I tried to use the framework.