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Course: IT FDN 110 A

Assignment 05

https://github.com/MeadowHer/IntroToProg-Python

## INTRODUCTION

One of the challenges starting was trying to edit and test the code while also keeping the data in the JSON file so that it wasn't completely erased as it needed to not be empty. So at first I was accidentally editing the "Enrollments" file and causing errors as I was editing. I had to keep pasting the data whenever this would happen. The next challenge was working with create the dictionary code within option 3.

## FROM THE BEGINNING

One of the most helpful tools that has been working is using the PyCharm tools such as the debugger and hovering. So using the examples to learn what certain lines with the debugger helps distinguish if the lines are 'str' or what data is tied to it. The hovering also allow me to be more preventative of potential errors or what could be wrong with my lines. I was able to see that my 'str' within my 'dic' was incorrectly written when hovering over the redlines. (seen below) Because I had already defined my student\_data as a dictionary with [] I was incorrectly writing in a 'str'.

```
student_data = ["FirstName:"student_first_name, "LastName:"student_last_name]
students.append(student_data
for row in students:
    print(f'{row["FirstName"] student_first_name: str = ''
    print(f"You have registered {student_first_name} {student_last_name} for {course_name}.")

student_data = {"FirstName": student_first_name, "LastName": student_last_name}
```

Figure 1. Incorrect str changed with correct change displayed for writing keys into the json file.

I was finally able to correctly append new student data into the file with the correct formatting using json.dump. The next part to do was write code to display the new additional data that was added to the file.

Figure 2. Success of input writing onto the json file including the keys.

I moved on from adding data to trying to add code for mistakes. Again my understanding of where code needs to nest with other functions is not great. I think I need more resources to understand how to do this but I am not what to be looking for. While I was able to use some resources from the assignment to write the exceptions for ValueErrors the explanation of how to use the print() function with them was unclear. I understand that we need to use the correct error type with in the code but the different ways to write the code and how they relate was not obvious. I was able to use the try/except coding to raise a ValueError and print the that when using input for the first and last name were processed with the code. This helped me establish the basics of how to use the try/except statements.

```
except ValueError_as e:

print(e, type(e))

print("make adjustment- ")

Frue) > except ValueError as e

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What would you like to do: 1

Enter the student's first name: Ron

Enter the student's last name: Test7

The last name should not contain numbers. <class 'ValueError'>
make adjustment-
```

Figure 3. Successfully except code for a Value error working.

## LOOPS WORKING AGAINST ME

However, my loop was incorrectly taking me back to option 1 in the menu whenever my input was 2,3 or 4. It also was not appending my document. I knew that something was wrong within the first part of my menu option since it was looping back to the beginning of the 'first name' input. After hours of trial and error I was reading a resource that explained that if the code reaches no statement exceptions in the block-try it will continue to the next to if/else in the for/while loops like normal. This made me realize that perhaps that is why my code was not executing to the other menu options because I put my "except" before my menu option 2. I put my code at the bottom of everything within the block/try and it worked. At this point my menu options worked as they should including writing in my json file and displaying all/ multiple registrations. The next issue though was the block was executing all the print functions after options 2 or 3. I tried to an another try block within my code but it was then not executing parts of my code and so I had to rearrange my code nesting again.

I realized that some of my print functions were not nested correctly within in input function block and that is why when option 3 or 4 were executed they were not only not printing correctly but also were printing for an option that was not selected. I edited the nesting so my selections were printed correctly and executed correctly but everything was still printing. I am assuming that the loop is running through everything and reprinting and displaying the data for option 2. As much as I tried I could not figure out why my loop was going back and reprinting everything. One of the last fixes I made was adding the COURSENAME key to my json file that I had forgotten.

## **SUMMARY**

This assignment tested more of how to understand nesting within a while loop with conditional try statements. I learned to iterate in a dictionary and print the inputs into the dictionary. This coding testing my ability to use exception handing and while writing some of that code was easy it was using it within a loop that caused me to get confused with the nesting again. I also was not able to figure out why my code was printing out my enrollment statement so many times. It was a great learning experience in how to use else and finally statements with exceptions.