**Assignment 6 – Python Registration Script**

**Introduction**

This week, I learned how to create a program that utilizes classes and functions to register students, display the information, and save the data to a JSON file. The information below breaks down the steps of how I was able to create this program.

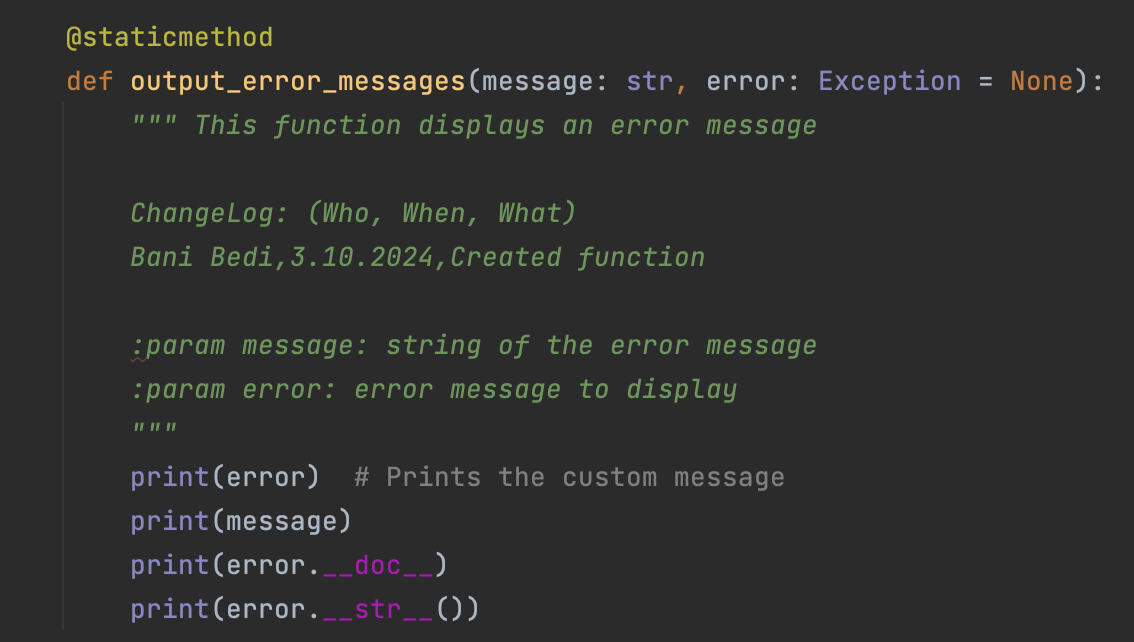
**Creating the Program**

Creating classes

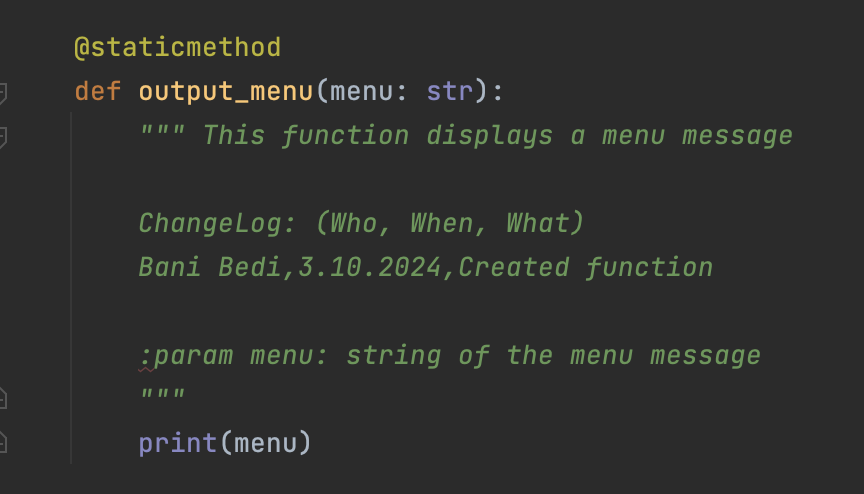
This assignment was taking my existing program and restructuring it into two main classes the IO class and the FileProcessor class.

IO Class

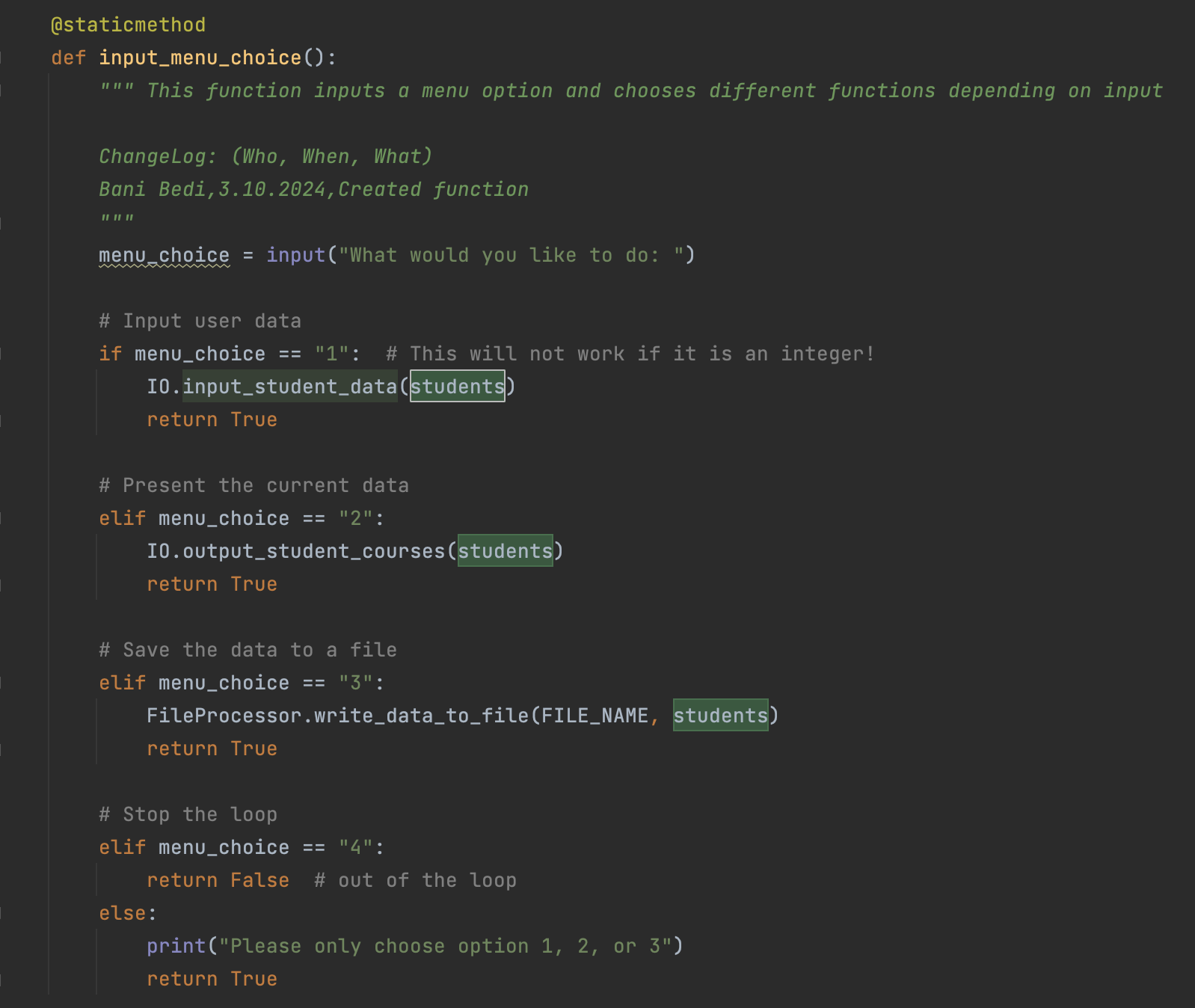
The first goal was to create the IO class that was responsible for the outputting and inputting of all data. These includes the following functions: output\_error\_messages, output\_menu, input\_menu\_choice, output\_student\_courses, input\_student\_data **(Figure 1.1, 1.2, 1.3, 1.4, 1.5)**.



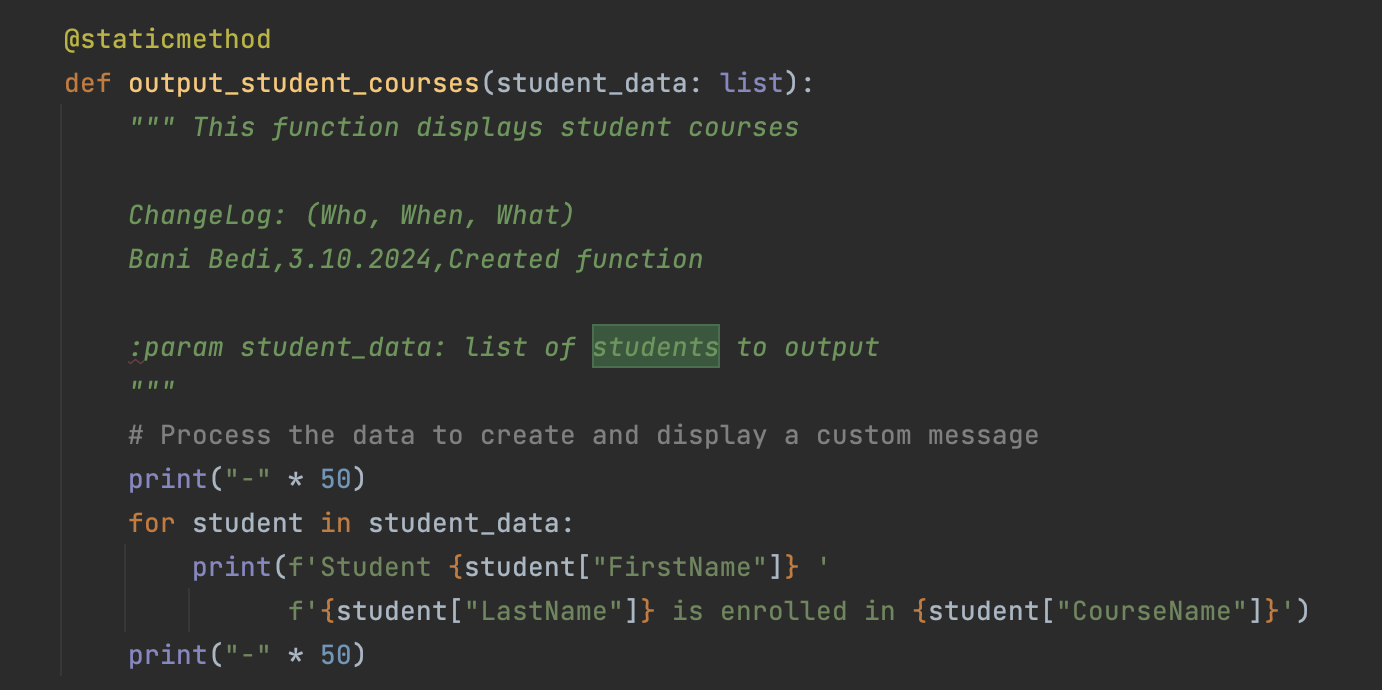
**Figure 1.1**: Added output\_error\_messages function to IO Class.

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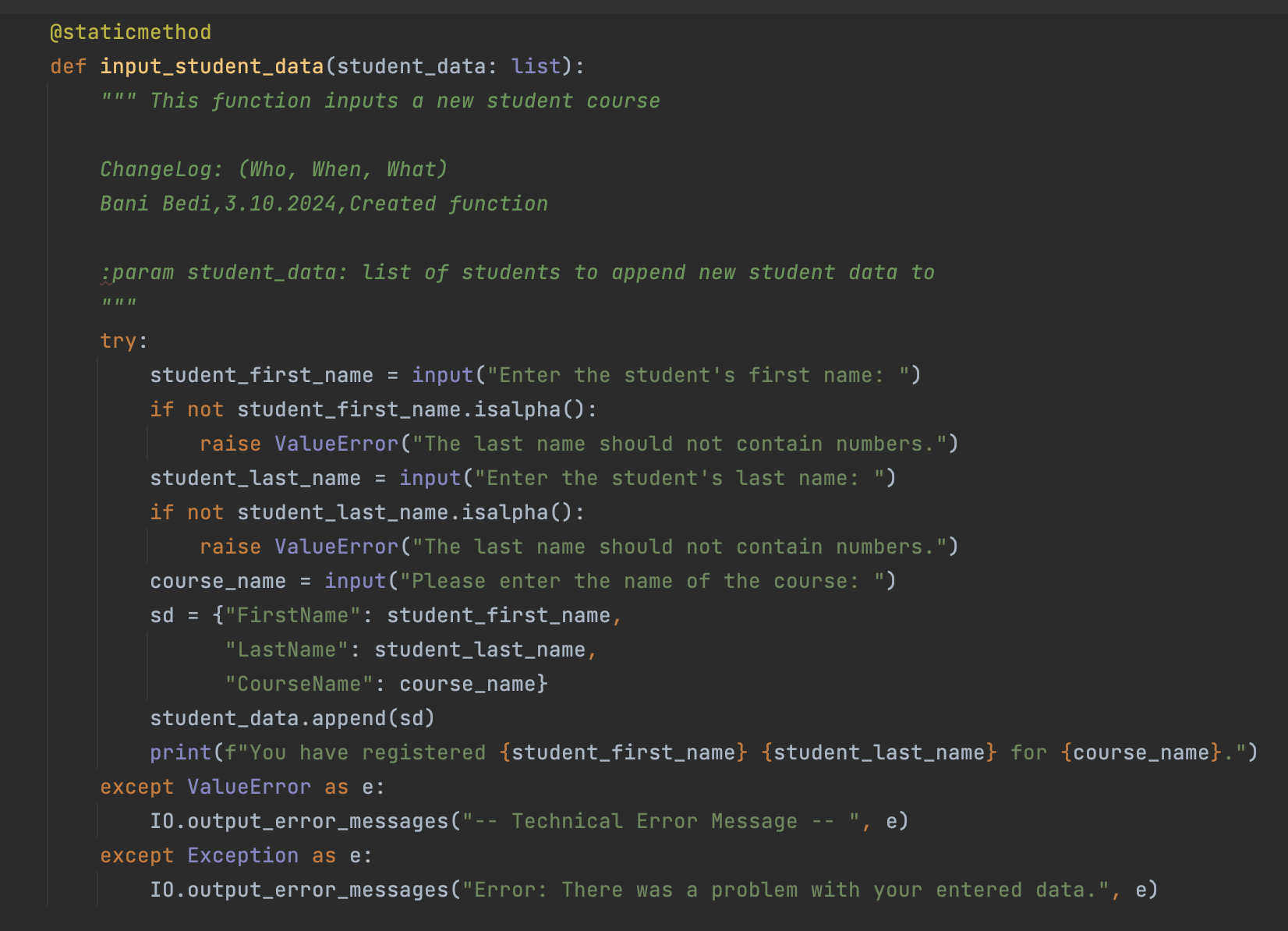
**Figure 1.2**: Added output\_menu function to IO Class.



**Figure 1.3**: Added input\_menu\_choice function to IO Class.



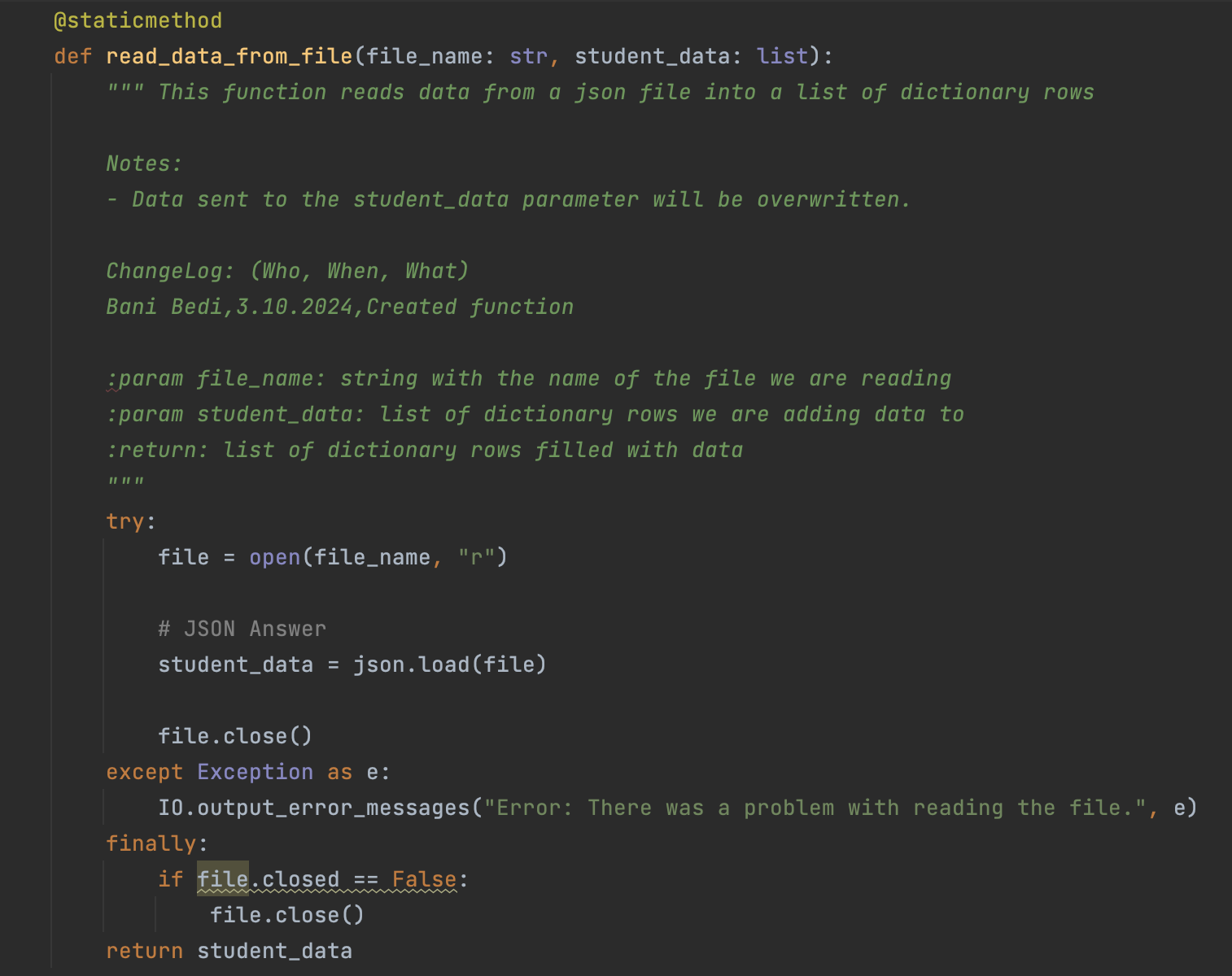
**Figure 1.4**: Added output\_error\_messages function to IO Class.



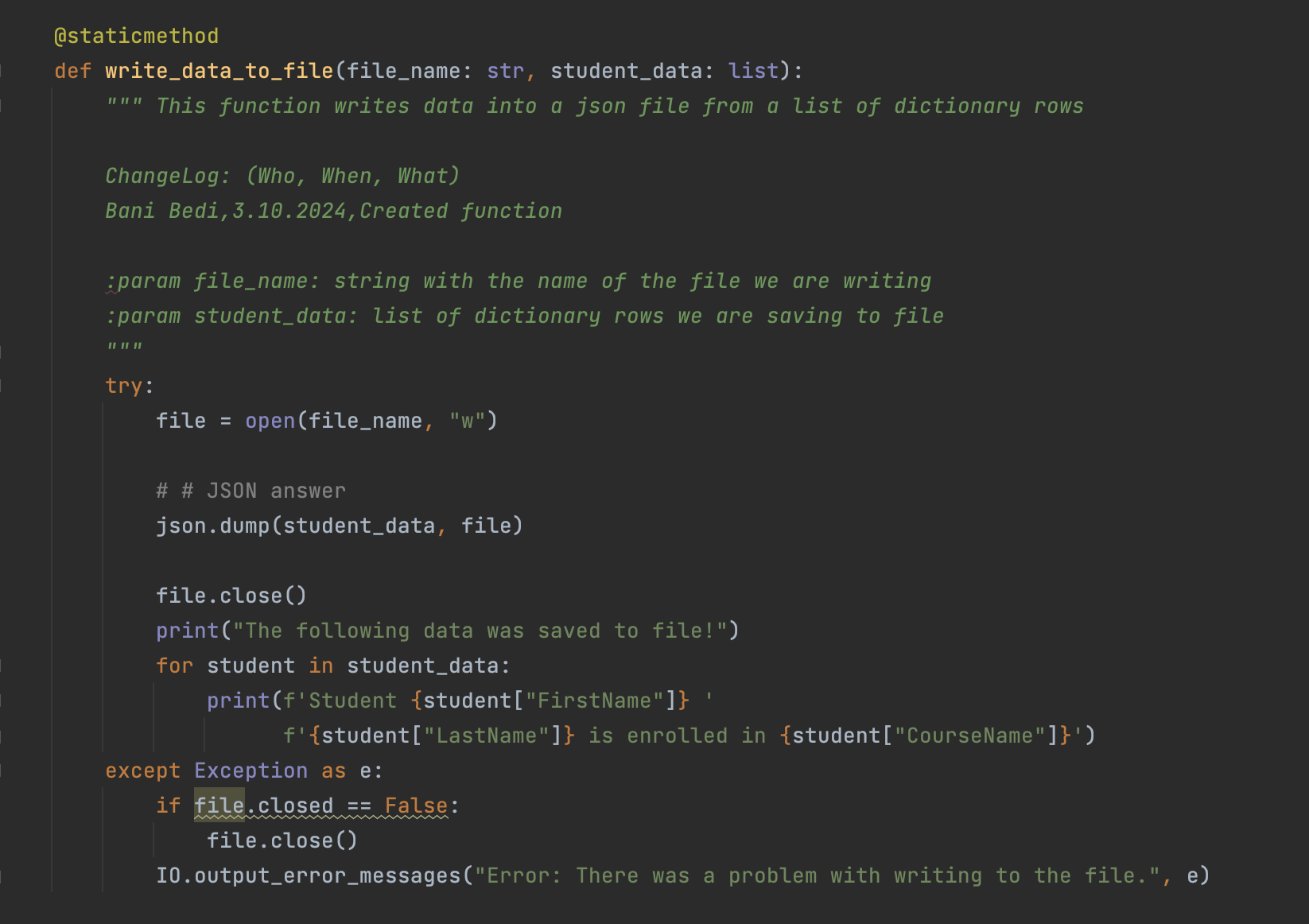
**Figure 1.5**: Added input\_student\_data function to IO Class.

FileProcessor Class

The second goal was to create the FileProcessor class that was responsible all file data saving and retrieving. These includes the following functions read\_data\_from\_file and write\_data\_to\_file **(Figures 1.6, 1.7)**.



**Figure 1.6**: Added read\_data\_from\_file function to FileProcessor Class



**Figure 1.7**: Added write\_data\_to\_file function to FileProcessor Class

**Summary**

In this project, I successfully created a Python registration script that allowed a user to enter an unlimited amount of students’ first, last, and course names; display them in the program; and save them in a JSON file. I employed key programming elements such as classes and functions to achieve this outcome. I, then, tested my program in both the terminal and PyCharm to ensure that it works **(Figure 1.8, Figure 1.9).**

A computer screen shot of a program

Description automatically generated A screenshot of a computer program

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**Figure 1.8:** An image of the Python Registration Script in PyCharm.

A computer screen shot of a computer program

Description automatically generated A screen shot of a computer program

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**Figure 1.9:** The code successfully working in Terminal.