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IT FDN 110 A Wi 22: Foundations of Programming: Python

Assignment 07

https://github.com/RedHotMegma/IntroToProg-Python-Mod06

Exceptions and Pickling

# INTRODUCTION

The purpose of this exercise is to explore exceptions and learn how to write to binary files.

# PROCESSING

The processing portion of the code defines two functions one to save the data to a file and the other to read data from the file. The first function is fairly straightforward as it opens the file in a write binary mode, dumps the list into the file and then closes it.

The second function is to read data from the file and save it in a list object. This includes a try block with an exception. The exception to catch is a FileNotFoundError so that if the file does not already exist, the exception then creates the file instead by using a write binary function in the open command. Once the file has been read, the function closes the file and prints the data that it read.

Text

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Figure 1.1

# PRESENTATION

In the presentation portion, the user is presented with 4 options: to add a customer, to see the current customer list, save the current customer list to a file, or exit the program

The first conditional for adding a customer contains a try block with an exception for a type error. This insures that if a user adds a non-integer id they are prompted to add an integer instead. From there it goes on to prompt for the customer’s name and then adds the customer to the list of all customers.

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Figure 2.1

The next several conditionals are fairly straightforward as choice 2 and 3 call the functions defined in the processing section and the choice four breaks the code. Finally the last else in the conditional string prints a request for the user to select a valid option in case they miskey their selection.

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# CONCLUSION

The pickling function allows someone to save data in a more compact format so that they do not use as much memory as if they saved to a text or csv file. Additionally, the use of exceptions for specific errors allows the programmer to counter expected errors without potentially covering up actual errors that may arise and need to be excepted separately.