Exercise 1.7: Finalizing Your Python Program

Learning Goals

- Interact with a database using an object-relational mapper
- Build your final command-line Recipe application

Reflection Questions

1. What is an Object Relational Mapper and what are the advantages of using one?

    a. ORM converts classes and objects into database structures like tables, columns and rows and vice versa. The advantages are that developers don't have to use and know the SQL syntax to work with databases and can work with database entries as with objects.

2. By this point, you've finished creating your Recipe app. How did it go? What's something in the app that you did well with? If you were to start over, what's something about your app that you would change or improve?

    a. It was a bit tricky to create meaningful flows using input from the terminal and validations. As validations happen only after the user entered a value, sometimes it may get a bit complicated. In some cases, the user has to revert to the start of the program, which is not very convenient (however, could be improved in the code as well).
    b. I think the design of the app and output turned out well, given that it's only a terminal interface.
    c. If I were to start again, I'd improve how the app handles user input so the user isn't returned to the start menu if in some cases their input isn't correct. And I'd also give myself a bit more practice with databases and ORM to prevent going constantly back and forth between the exercise notes, my notes, and the app.

3. Imagine you're at a job interview. You're asked what experience you have creating an app using Python. Taking your work for this Achievement as an example, draft how you would respond to this question.

    a. I have experience with creating an application in Python that employes both OOP and functional programming principles, can work with standard files as well as with databases, and I also have experience in employing ORM with a MySQL database to store app data permanently. I've also incorporated error handling with try-except within various scenarios, such as when working with files, databases, and user input.

4. You've finished Achievement 1! Before moving on to Achievement 2, take a moment to reflect on your learning in the course so far:

a. What went well during this Achievement?

    i. All course work so far has been manageable and I am on track.

b. What's something you're proud of?

    i. First time ever I've worked with file handling and databases in Python and I am glad I managed to incorporate these concepts into a real application and see how the database information translates into code and vice versa.

c. What was the most challenging aspect of this Achievement?

    i. The last exercise. At this point, the app has been built from scratch multiple times and this one was the biggest rework using ORM.

d. Did this Achievement meet your expectations? Did it give you the confidence to start working with your new Python skills?

    i. I am definitely more confident than at the beginning. However, there are certain concepts that I wish to practice more so that my understanding strengthens, especially the work with databases and ORM. I want to make sure I know what happens on every step of the way.

e. What's something you want to keep in mind to help you do your best in Achievement 2?

    i. Keep up with planning your learning time ahead, stick to the dedicated study time and practice concepts through smaller tasks more often. And don't forget to take breaks.