Exercise 1.6: Connecting to Databases in Python

Learning Goals

- Create a MySQL database for your Recipe app

Reflection Questions

- What are databases and what are the advantages of using them?

- Databases are like organized digital filing cabinets, helping us store, manage, and retrieve data in a structured manner. They ensure our data stays organized, secure, and consistent, making it easier to access and work with. Plus, they allow multiple users to interact with the data simultaneously, supporting the needs of modern applications and organizations.

- List 3 data types that can be used in MySQL and describe them briefly:

Type	Definition
VARCHAR	This data type is used to store variable-length character strings. It's suitable for storing text data like names, addresses, or descriptions, with a specified maximum length
INT	INT is short for integer, and it's used to store whole numbers. It can hold both positive and negative values within a defined range, making it ideal for storing numerical data like IDs, quantities, or counts.
FLOAT	FLOAT is a data type used to store floating-point numbers, which are numbers with decimal points. It's suitable for storing numeric data that requires decimal precision, such as prices, measurements, or calculations involving fractional values.

- In what situations would SQLite be a better choice than MySQL?

- for smaller-scale applications or projects where simplicity and ease of use are prioritized over scalability and concurrent access.

- Think back to what you learned in the Immersion course. What do you think about the differences between JavaScript and Python as programming languages?

- In the Immersion course, we extensively covered both JavaScript and Python. JavaScript is primarily used for web development, with a strong focus on client-side scripting, while Python is more versatile, known for its readability and ease of use in various domains such as web development, data science, and automation

- Now that you're nearly at the end of Achievement 1, consider what you know about Python so far. What would you say are the limitations of Python as a programming language?

- Python's limitations include its slower execution speed compared to languages like C or C++, making it less suitable for high-performance computing tasks. However, Python's extensive library ecosystem and community support often mitigate these limitations.