Python for Web Developers 

Learning Journal

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 organized collections of data, typically stored and accessed electronically. Advantages include efficient data retrieval, data integrity, scalability, and concurrent access.

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

|  |  |
| --- | --- |
| **Data type** | **Definition** |
| INTEGER | Stores whole numbers, such as 1, 2, -3. |
| VARCHAR | Variable-length string, with specified maximum length. |
| FLOAT | Stores floating-point numbers, like 3.14, 0.001. |

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

SQLite is suitable for small-scale applications with lightweight database requirements, like mobile apps or small websites. It's serverless, easy to set up, and requires no administration, making it ideal for projects with low traffic and limited resources.

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

JavaScript is commonly used for web development, providing dynamic functionality in browsers. Python, versatile across domains like web development, data analysis, and AI, has synchronous execution. JavaScript's asynchronous nature allows non-blocking operations, while Python's synchronous model may simplify code comprehension and debugging in certain scenarios.

* 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 drawbacks seem to include slower performance for CPU-intensive tasks, limitations in memory handling, and complexities with multithreading due to the Global Interpreter Lock (GIL). Dependency management can also pose challenges compared to other languages.