Exercise 1.6: Connecting to Databases in Python

Reflection Questions

1. What are databases and what are the advantages of using them?
   Databases are super organized digital filing cabinets. As they let me store tons of information in a structured way, making it easy to find and update stuff later.

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

DATA TYPE	DEFINITION
INT	Your basic whole number. Great for things like IDs, counting stuff, or any time you need a regular number without decimal points.
VARCHAR	This is for text, but with a twist - you set a maximum length. It's perfect for names, short descriptions, or anything where you know roughly how long the text will be.
DATETIME	This one's for keeping track of when things happen. It stores both the date and time, which is super handy for timestamps, scheduling, or tracking when entries were made or updated.

3. In what situations would SQLite be a better choice than MySQL?
   It's perfect for mobile apps that need a local database, simple websites that don't need a separate database server, and when I need a database that is easy to move around.

4. 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 a king of web browsers, making websites interactive and dynamic. Python is great for a bunch of different tasks, from data analysis to building web servers. For me, I feel like Python is more straightforward and readable, while JavaScript needs some time to get used to it. I like them both in their own ways.

5. 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?
   The dynamic typing is great for flexibility and neat, but sometimes may cause unexpected errors if I don't pay attention. I think it is not the best choice for mobile app development.