

## Exercise 1.6: Connecting to Databases in Python

### Learning Goals

- Create a MySQL database for your Recipe app

### Reflection Questions

1. What are databases and what are the advantages of using them?  
Databases are organized collections of data that are stored and accessed electronically. A single database can contain multiple tables, made up of rows and columns. The advantage of using databases is that they store the data in a standardized format so it can be accessed and stored more easily. They also ensure data security by using authentication methods.
2. List 3 data types that can be used in MySQL and describe them briefly:

Data type	Definition
VARCHAR(n)	String of variable length, n representing maximum characters.
INT	Standard integers
FLOAT	Floating points decimal numbers

3. In what situations would SQLite be a better choice than MySQL?  
When working with very simple databases, or when just testing a database without having to set up the entire database engine, using SQLite is better. SQLite is a portable version, requiring no installation or setup.
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 used for web development, especially for client side and is essential for creating dynamic web pages and can also be used for backend development using node.js. JavaScript has a more complex syntax.  
Python is used for web development, machine learning and data science. The syntax is readable and simple. Ideal for beginners.

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?  
JavaScript is faster for web related tasks because it's supported in browsers and optimized for web performance. Python on the other hand is not used for performance critical applications.