### Challis Regan

### 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?
   1. A database is an organized collection of data. Databases are better than local storage because they are password protected, and store data in a standardized format. The standardized format makes access easier with Python or other applications.
2. List 3 data types that can be used in MySQL and describe them briefly:

|  |  |
| --- | --- |
| **Data type** | **Definition** |
| VARCHAR(n) | String of variable length, with n representing the maximum number of characters |
| INT | Standard integers |
| DATETIME | Datetime values |

1. In what situations would SQLite be a better choice than MySQL?
   1. SQLite is good for storing small, simple databases, without needing to install or set it up.
2. Think back to what you learned in the Immersion course. What do you think about the differences between JavaScript and Python as programming languages?
   1. JavaScript is mainly used for web development, offering dynamic and interactive functionality directly in web browsers. It is written to the ECMAScript specification. On the other hand, Python emphasizes simplicity and readability, it is ideal for tasks like backend development and data analysis. Both languages are widely used and important.
3. 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?
   1. Python is not suited for front-end development. Also, Dependency management can be challenging with conflicting versions. In addition, there is difficulty in creating standalone executables without additional tools.