

## Exercise 1.6

1. What are databases and what are the advantages of using them?

Databases are a way to store data in organized collections. Some advantages to using them are they keep data in a standardized format so you can store and access them easier, you can use a password to keep them more secure, and they are universally accessible due to their format.

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

Data type	Definition
VARCHAR(n)	This is a string of variable length, with n representing the maximum number of characters.
INT	These are standard integers.
DATETIME	These are datetime values.

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

SQLite would be better when working with a very simple database, it is ready with zero configuration and it is stored in a single file making it easy to share and store.

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?

Python I feel is easier to read and maintain, and though it is used in many areas I would probably use it more for back-end programming. While JavaScript I feel is better suited for client-side, though it does lack the multitude of libraries and modules that Python has.

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?

Some limitations to Python is its slower speed, its high memory usage, and its runtime errors due to its dynamic typing.