

EXERCISE 1.1: GETTING STARTED WITH PYTHON

1. In your own words, what is the difference between frontend and backend web development?

If you were hired to work on backend programming for a web application, what kinds of operations would you be working on?

Frontend development focuses on creating the user interface and user experience of a website and application, this involves languages and technologies like HTML, CSS, JavaScript, and frameworks like React or Angular for designing and building the visual aspects of a website (layout, navigation, and interactive elements).

Backend development focuses on the server-side of the website, building the server, database, and API that power the frontend.

If I were hired to work on backend programming for a web application, I'd work on setting up and maintaining databases, developing server-side logic for business operations and creating APIs for frontend communication.

2. Imagine you're working as a full-stack developer in the near future. Your team is asking for your advice on whether to use JavaScript or Python for a project, and you think Python would be the better choice. How would you explain the similarities and differences between the two languages to your team? Drawing from what you learned in this Exercise, what reasons would you give to convince your team that Python is the better option? (Hint: refer to the Exercise section "The Benefits of Developing with Python").

Both JavaScript and Python have large, active communities and a wide range of libraries and frameworks.

JavaScript is primarily a frontend language that runs in the browser, but it can also be used for backend development with Node.js.

Python is more general-purpose. It's commonly used for backend development, data science and machine learning.

Reasons to choose Python:

- Python's syntax is clean and readable, making it easier to write and maintain code.
- Python has robust of libraries and frameworks, a strong community, with extensive documentation and resources.

3. Now that you've had an introduction to Python, write down 3 goals you have for yourself and your learning during this Achievement.

You can reflect on the following questions if it helps you.

What do you want to learn about Python?

What do you want to get out of this Achievement?

Where or what do you see yourself working on after you complete this Achievement?

I want to gain an understanding of the language and its capabilities, which will allow me to create efficient and maintainable code and learn more about backend development in general.