### **Exercise 1.1: Getting Started with Python**

#### ***Learning Goals***

* Summarize the uses and benefits of Python for web development
* Prepare your developer environment for programming with Python

#### ***Reflection Questions***

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 refers to the creation of the user interface and user experience of a website or web application. On the other hand, backend development involves the server-side programming and infrastructure that powers the website or web application. If hired to work on backend programming for a web application, some operations I would work on include database, API, authentication and authorization.

1. 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”)*

Python offers many modules and frameworks for web development, data analysis, machine learning, and automation. It's easy to learn. Its big and active community makes it perfect for beginners and seasoned developers. Python's syntax is simpler and easier to comprehend than JavaScript's, making it ideal for building clean, efficient code.

1. 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?

* Enhance my Python syntax, features, and best practice knowledge.
* Explore Python's ecosystem and learn popular libraries, frameworks, and tools.
* Develop Python backend web development skills and understand database administration, API integration, and security.