

### **Session Expectations:**

- Mics muted
- Raise Hand
  - React 🁍
  - Respond "?"



- Intent: To explore what Python is, and what it does.
- Implementation: To write and run your first lines of Python code.
- Impact: To contextualise how the fundamentals of **Python** enable us to **process** and **manipulate** data.

# What is Python?

Python is a versatile, high-level programming language known for its <u>simplicity</u> and <u>readability</u>.

It supports various programming paradigms and is widely used in data analysis, machine learning, AI, scientific computing, and automation.

#### Remember JavaScript!

Python and JavaScript share many fundamental concepts, making it easier to transition between the two.

They support similar data structures like <u>arrays</u> (<u>lists</u> in <u>Python</u>) and <u>objects</u> (<u>dictionaries</u> in <u>Python</u>).

Concepts such as <u>variables</u>, <u>loops</u>, and <u>conditional</u> <u>statements</u> work similarly in both languages.

One difference between Python and JavaScript is that Python does not natively run in the browser, meaning we need to install it to our system to work with it.

Please ensure you have Python downloaded and installed:

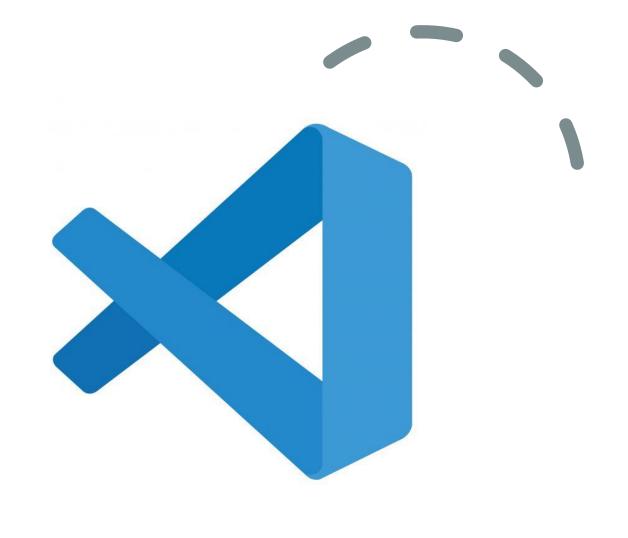
Windows: <a href="https://www.python.org/downloads/">https://www.python.org/downloads/</a>

Mac: <a href="https://www.python.org/downloads/macos/">https://www.python.org/downloads/macos/</a>

## **Session Topics**:

- Variables
- Data Types
- Input / Output

Let's move over to VS Code to take a look at the basics of Python...



#### **Reference Links:**

Getting Started: <a href="https://www.programiz.com/python-programming/getting-started">https://www.programiz.com/python-programming/getting-started</a>

Variables: <a href="https://www.programiz.com/python-programming/variables-constants-literals">https://www.programiz.com/python-programming/variables-constants-literals</a>

Input / Output: <a href="https://www.programiz.com/python-programming/input-output-import">https://www.programiz.com/python-programming/input-output-import</a>