

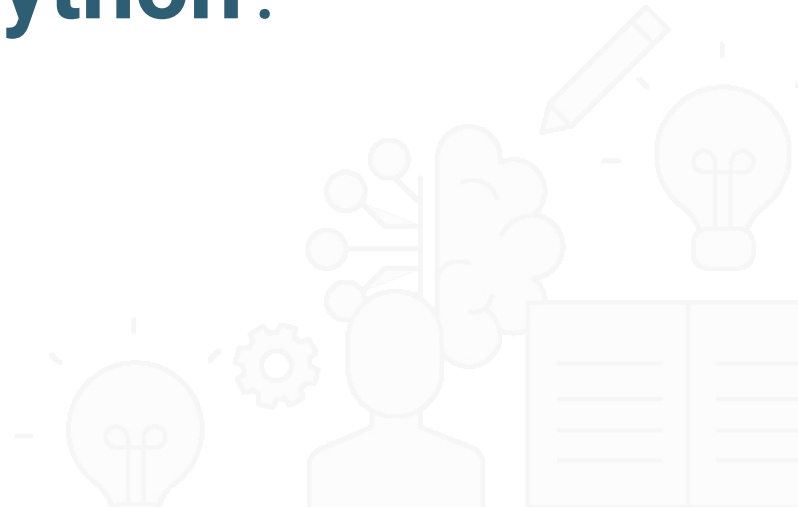
Software Development

Python Fundamentals

Module 21



Why use **Python**?



Why Use Python?

Reasons for Python's popularity

- 1 Versatile language—can used for many types of applications
- 2 Operating-system-agnostic
- 3 Interpreted language—code does not need to be compiled before use
- 4 Broad library included in base download
- 5 Extendable with additional libraries
- 6 Open source
- 7 Easy to learn

Why Use Python?

What Do We Use Python For?

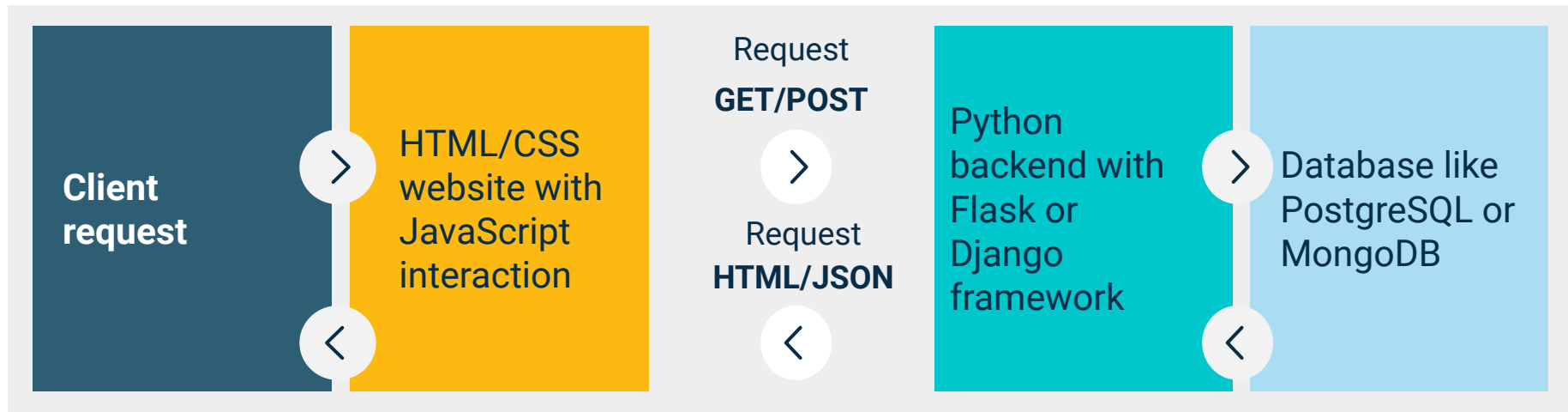
- 1 Web and software development
- 2 Task automation
- 3 Data analysis
- 4 Machine learning and AI engineering

Why Use Python?

Backend development

There are two popular backend frameworks available in Python:

- Flask
- Django





Who Uses **Python**?



Who Uses Python?

Many popular companies use Python, including:

1 Netflix

2 Spotify

3 Google

4 Instagram

5 Facebook

6 Amazon

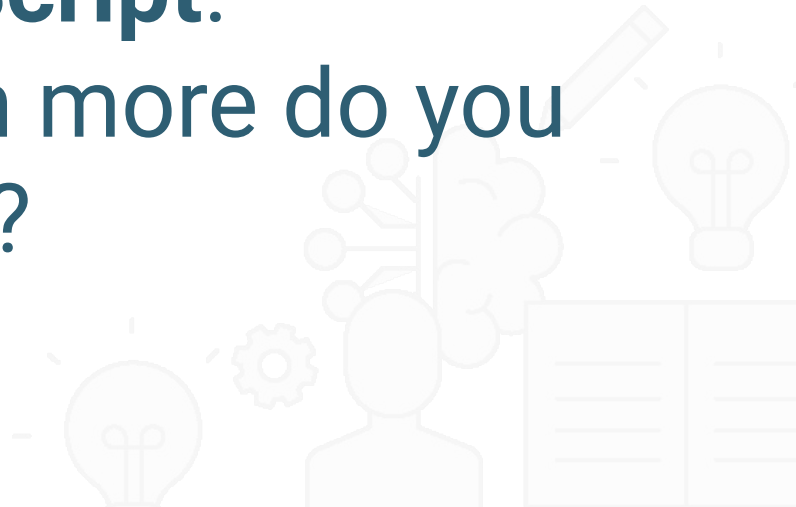


How do we add
another language to
our skill set?





Reflect back to when you started using **JavaScript** and **TypeScript**.
How much more do you know now?





How can we learn
to use **Python**?



How to Learn Python

With the fundamentals of coding established through learning JavaScript, we can start by focusing on syntax and keyword differences.

JavaScript

```
// Define some variables
let myName = "Han Soon"
let myAge = 42
const myNationality = "Malaysia"

if (myAge == 42){
    console.log("I am the meaning of
life!")
}
```

Python

```
# Define some variables
my_name = "Han Soon"
my_age = 42
MY_NATIONALITY = "Malaysia"

if my_age == 42:
    print("I am the meaning of life!")
```

How to Learn Python

Similarities with JavaScript



Primitive data types and strings



Conditional statements



While loops



Arithmetic and conditional operators



Method chaining



Function arguments and return statements

How to Learn Python

Differences compared to JavaScript



Defining variables



Naming conventions



How to write comments



For loops



Logical operators

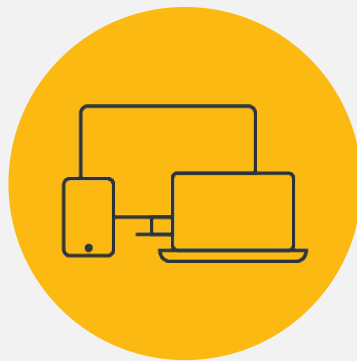


Functions available

How to Learn Python

Try some of the following techniques to learn Python:

- 1 Read the docs and practice with the provided examples.
- 2 Reverse-engineer finished code to see how it was created.
- 3 Build something from scratch.
- 4 Convert a JavaScript script to Python.
- 5 Most importantly, ask questions.



Instructor **Demonstration**

Mini Project