

AI Python for Beginners

Module 4: Extending Python with Packages and APIs



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Lesson 1: Using Functions from a Local File



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How to load functions

Local Python files allow you to load functions into your code

Imports **specific function**

```
from file import function
```

Imports **every function**

```
import file
```

Imports **every function**

```
from file import *
```

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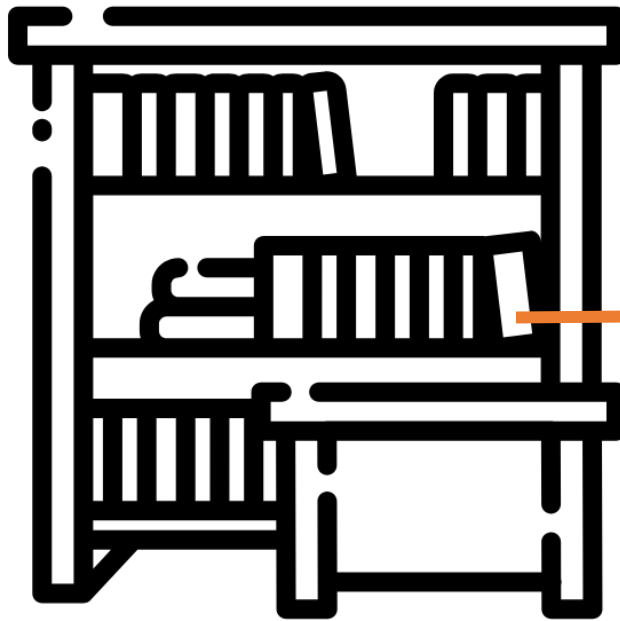
Lesson 2: Built-in Packages



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What is a Python package?

A collection of functions for a specific set of tasks, like doing math or statistics.



Python has many
packages!

Use only what
you need

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Lesson 3: Using Third-party Packages



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Third-party packages

In this notebook, you used the **pandas** and **matplotlib.pyplot** packages.

You imported these packages with the following commands:

```
import pandas as pd
import matplotlib.pyplot as plt
```


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Lesson 4: Installing Packages



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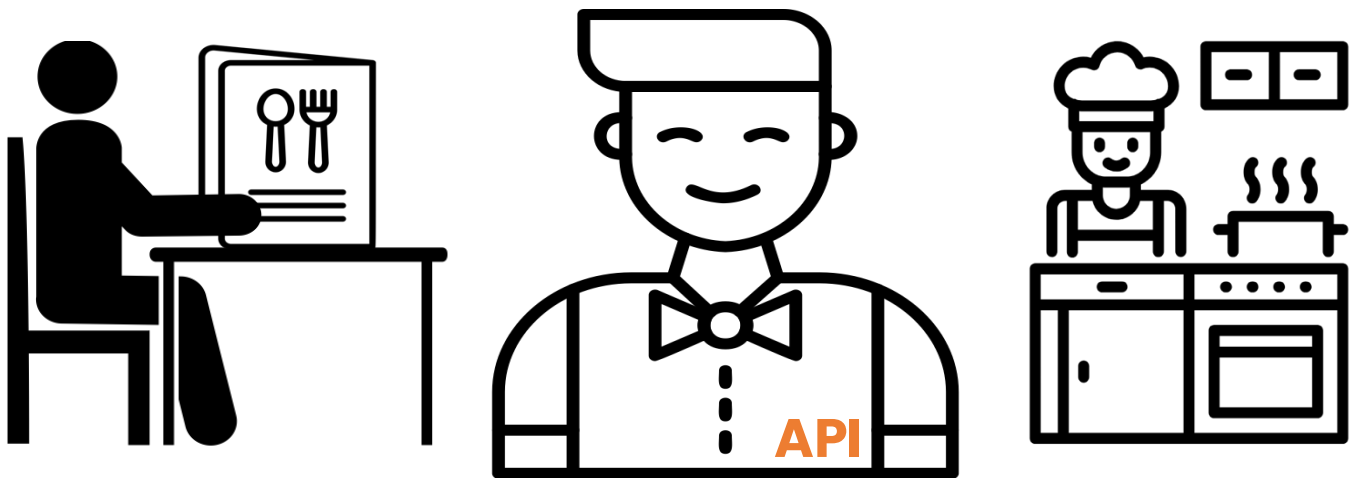
Lesson 5: Using APIs to get Data from the Web



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What is an API?

Application Programming Interfaces (APIs) let you ask another computer to give you data or carry out a service.



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Lesson 6: APIs to use AI Models



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get_llm_response()

```
def get_llm_response(prompt):
    completion = client.chat.completions.create(
        model = "gpt-4o-mini", Model selection
        messages = [ Tells the LLM how to respond
            {
                "role": "system",
                "content": "You an AI assistant.",
            },
            {"role": "user", "content": prompt},
        ],
        temperature=0.0, Controls randomness of the responses
    )
    response = completion.choices[0].message.content
    return response Gets the LLM response text
```

Creates the request, **sends** it, and **handles the response** from the OpenAI API