

FUNCTIONS IN PYTHON



FUNCTIONS IN PYTHON $f(x)$

We use functions to organize our code in blocks that can later be reused.

This offers us better readability and modularity for our code.

FUNCTIONS IN PYTHON $f(x)$

DRY - DON'T REPEAT YOURSELF



FUNCTIONS IN PYTHON $f(x)$

WET - WRITE EVERYTHING TWICE



DOCSTRINGS



DOCSTRINGS

COMMENTING vs. DOCUMENTING



FUNCTIONS IN PYTHON $f(x)$

A function can take parameters that are a special kind of variable used in a function as input.

FUNCTION ARGUMENTS

- 1 Positional arguments
- 2 Keyword arguments
- 3 Default arguments
- 4 `*args`
- 5 `**kwargs`



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kwargs stands for **keyword arguments** and it builds a variable-length dictionary of key:value pairs.

SCOPES AND NAMESPACES



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- the portion of code where the name exists is called the **scope** of that name and the binding between the name and the value is stored in a namespace;

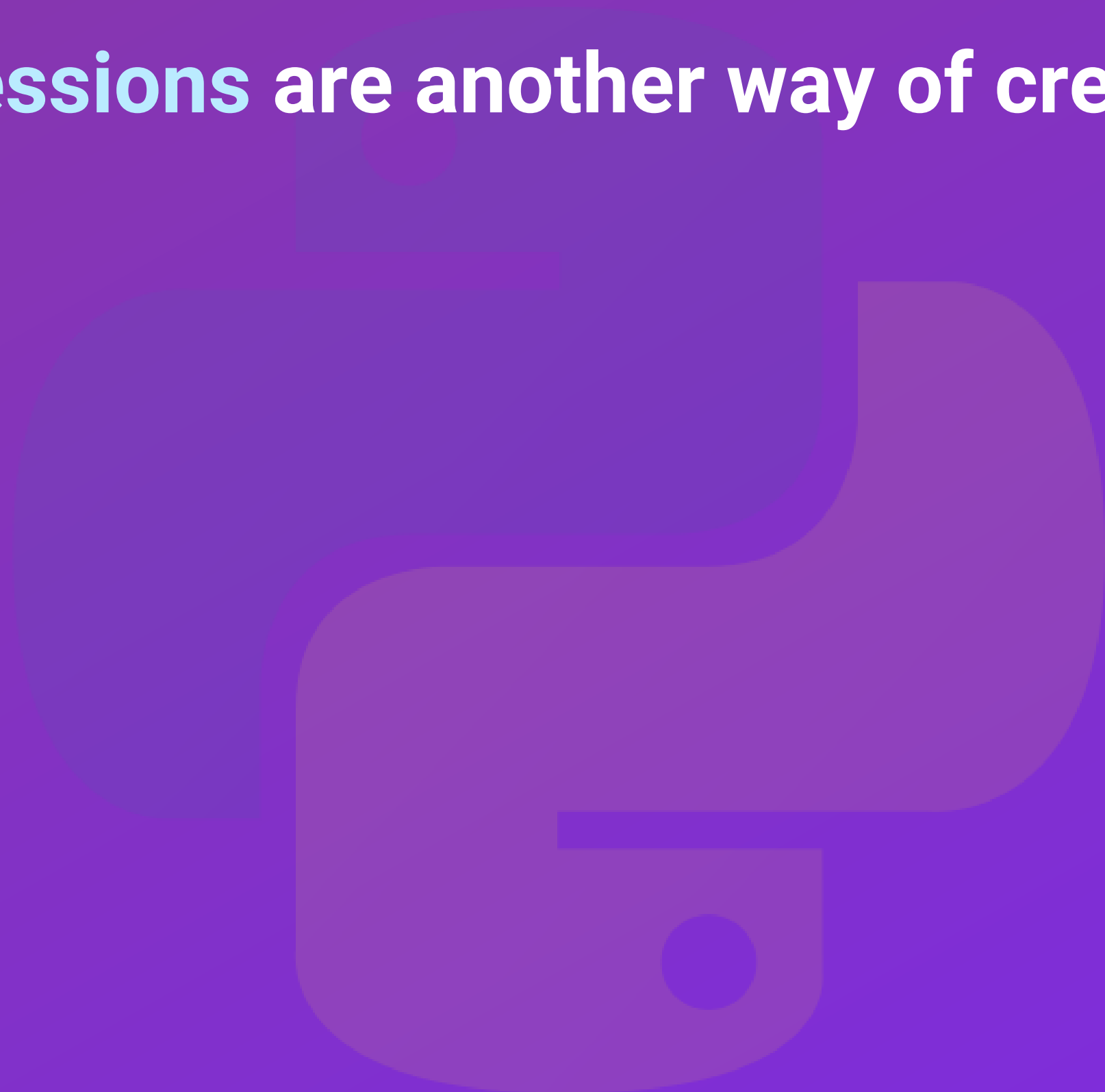
SCOPES AND NAMESPACES

In Python there are 3 namespaces and scopes:

- 1 The Built-in Namespace: Python built-in functions**
- 2 The Global (Module Namespace): names defined in scripts**
- 3 The Local Namespace: names defined inside functions**

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- **Lambda expressions** are another way of creating functions.
- They are called **anonymous functions** because they don't have a name (they are a single line of logical code).
- The terms **lambda expressions**, **lambda functions**, **anonymous functions** or **function literals** can be used interchangeably.