Introduction to Python

Lesson 1: Basics

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Why Python?

Python is:

- easy to learn
- easy to write (dev time is worth more than runtime)
- great for prototyping and scripting but can do powerful stuff too

Python 2 vs. Python 3

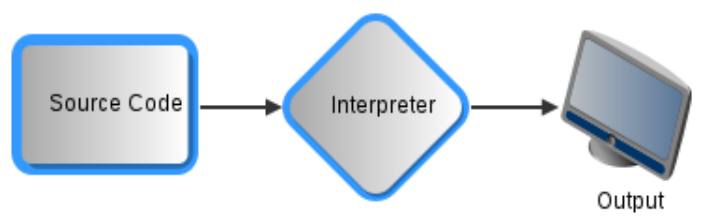Python has split (for now) between 2 and 3.

- Python 3 is not backwards compatible but differences are small (for us).
- Python 2.7 is the last Python 2 version - shutdown is 2020
- We are learning Python 2 but the jump is easy!
- You are welcome to use Python 3 but look up differences (or ask me)

Overview

Python is:

- multi-paradigm (object-oriented with functional stuff thrown in),
- dynamically typed,
- interpreted.

Python is Interpreted

The interpreter is a program called Python.

Running Python

Two ways of using the Python interpreter (for us):

- For long programs save your code in a .py file and run

```
python script.py
```

.py files are just text files!

- For simple calculations just run the interpreter:

```
python
```

This command will launch the REPL, an interactive mode.

The REPL

The REPL is the default behaviour when you run the interpreter.

REPL stands for:

- READ
- EVAL
- PRINT
- LOOP

Example Time!