

# Intelligent Control

## Lecture 1 – Say hello to Python

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Python history (just a little bit)

What can python do?

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# A quick intro: Python

Python is an interpreted, interactive, object-oriented high-level programming language.

# A quick intro: Python

A programming language that is:

Simple to use

Simple to learn

Powerful

For anything,  
at anywhere

Portable

Open source

Easily readable code

Not very efficient => rather slow

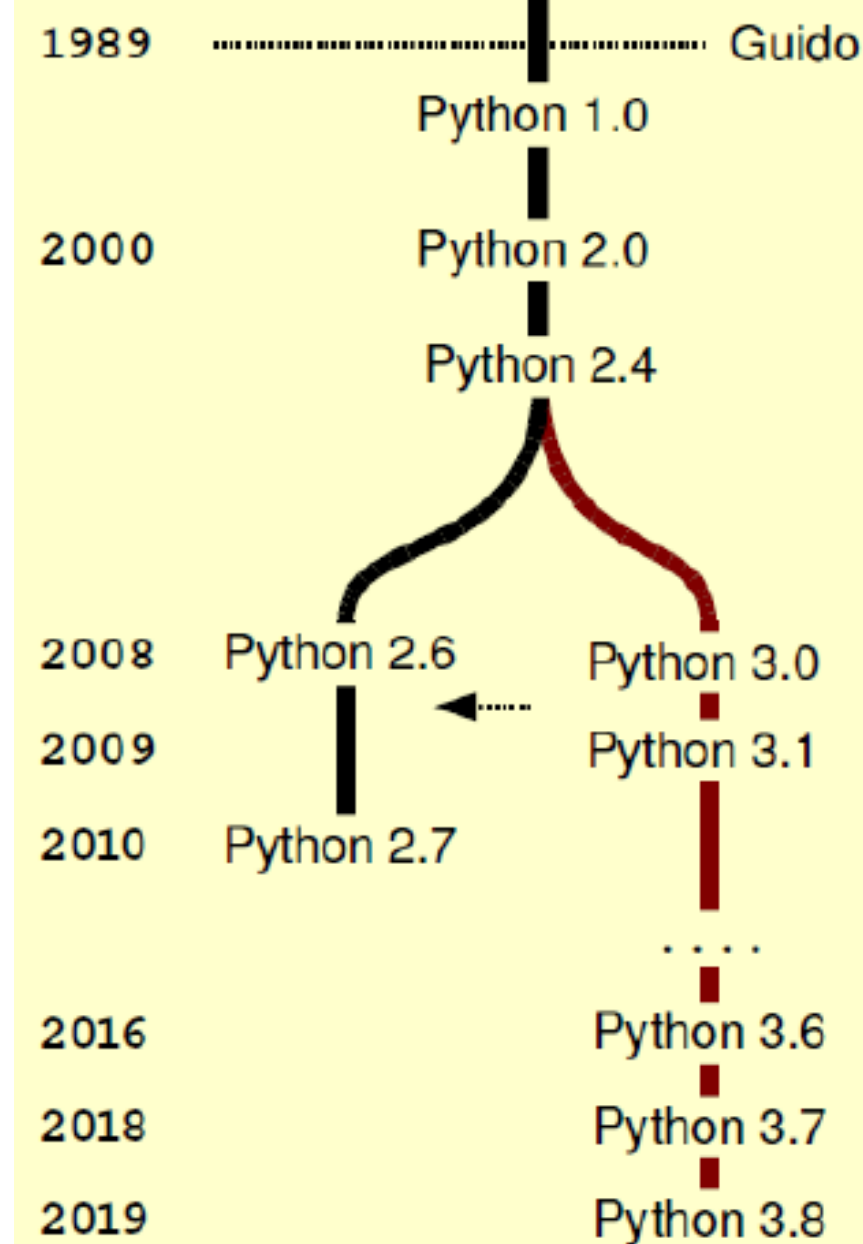
How slow is python? (especially for number crunching)



# Python history

Python 3 is not compatible with Python 2.

The official support for Python 2 ended in January 2020.



Create by Guido van Rossum

# What can Python do?

**Guess?**

# What can Python do?

Network engineering & management

Scientific computing

Machine learning & AI

Web app development

Web scraping

IoT

Data analytics

Games Development

Database

Cloud Services



# Tools

- General CLI on your machine
- IDLE – comes with the official python package
- Text editor
- Jupyter Lab/notebook  $\leftrightarrow$  Google CoLab(online alternative)
- PyCharm
- VS Code
- ...

# Demos

# Hello World

Let's start using Python!

First of all: the `print()` function/method

Let's print "Hello World" using Python!

# Hello World

## Wrap-up

During this lecture we have seen:

1. What's Python
2. Python version
3. What does Python do
4. The print() method, how to use it
5. How to look for help in Python

## Wrap-up

- Make sure you have Python, IDLE ready.
- Play with CLI, create and run your first Python scripts
- Study chapter 1 and 2 of “The Coder’s Apprentice”.
- Something extra: Chapter 1 of “ThinkPython”.
- Practice as much as possible.