

Python

Introduction to python



Saurabh Shukla (MySirG)

Agenda

- ① History of Python
- ② Version History of Python
- ③ Why you should learn Python?
- ④ Features of Python
- ⑤ Amazing facts
- ⑥ Where Python can be used?
- ⑦ Learning Path

History of Python

- Python was conceived in the late 1980s by Guido van Rossum at Centrum Wiskunde & Informatica in the Netherlands as a successor of the ABC language.



Guido Van Rossum

- He has been invariably worked as the lead developer, until 12 July 2018.
- In Jan 2019, active Python core developers elected a five member council to lead the project.

Version History

- Python 1.0 1994
- Python 2.0 2000
- Python 3.0 2008

Latest version

Python 3.12.0 2 Oct 2023

Python Implementation

Traditional and popular implementation
is also known as CPython

Other implementations

Iron Python (Python running on .NET)

Jython (Python running on JVM)

PyPy (Python running with JIT compiler)

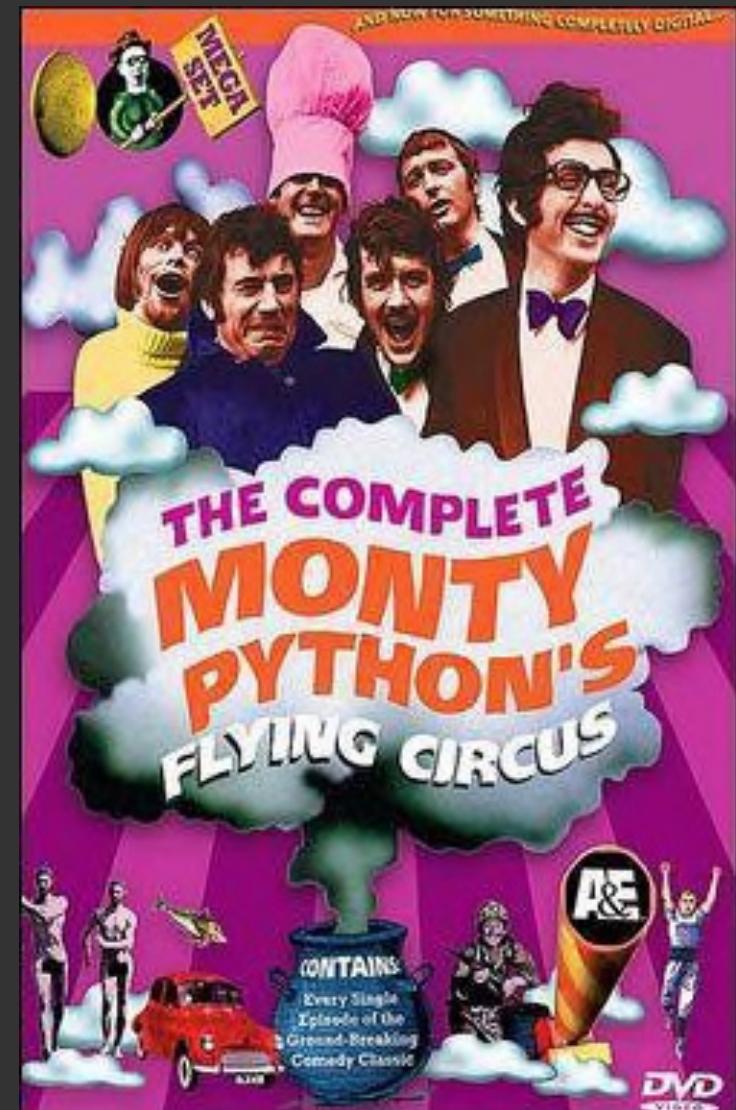
Stackless Python (CPython with support of microthreads)

Micro Python (Python running on microcontrollers)

Name - Python

Python developers aim for it to be fun to use.

The name 'Python' is a tribute to the British comedy group Monty Python



Why you should learn Python?

- Huge Community Support
- Future is with AI
- Easy to learn and implement
- General purpose programming language

Features of Python

- Highly Extensible
- . Simple and straight forward syntax
- . Multi paradigm programming language
- . Emphasis on code readability
- . Dynamic Typing
- . Automatic memory management
- . Dynamic Binding
- . Precise coding
- . For time critical operations, Python can use modules written in C Language.
- . Indentation base block of code.
- . Large library
- . Platform independent

Amazing Facts

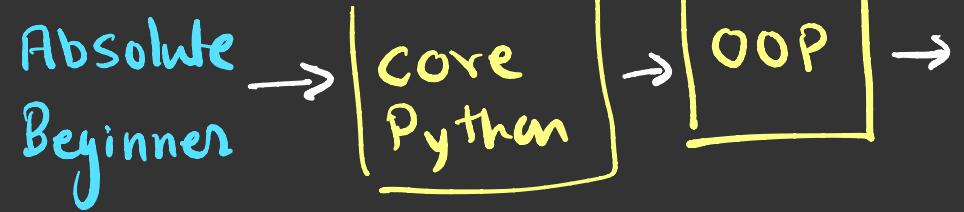
- Ranked #1 (TIOBE)
- Highest rise in rating 2007, 2010, 2018, 2020
- It reduces app development time by $1/6$
- Large organizations that uses Python are Google, Netflix, Dropbox, YouTube, Instagram, CERN, Microsoft, NASA, Amazon, Facebook, Mozilla, etc.

Where Python can be used?

- Developing websites
- Task automation
- Data Analysis
- Data visualization
- AI , ML , IOT
- Developing desktop applications.

Python can also be used in developing mobile applications, client side of AJAX based applications.

Learning Path



Learn by doing Projects

- Develop console app using some DB.
- Develop gui app
- Develop web application
- Develop ML based app
- Learn DevOps