

Introduction to Python as Language

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History

- Started in the Christmas holidays by Dutch programmer Guido van Rossum in 1989
- Continue to evolve till today as an open source effort
- Definitions of Python
 - Different version can be quite different
 - Python2 vs Python3
 - Release documentation
 - PEP (Python extension proposals)

Key Concepts about Python

- From the mouth of the creator:
- Python is an **interpreted**, **object-oriented**, **high-level** programming language with **dynamic semantics**.
 - Its high-level built in data structures, combined with **dynamic typing** and **dynamic binding**, make it very attractive for **Rapid Application Development**, as well as for use as a **scripting or glue language** to connect existing components together.
 - Python's simple, **easy to learn syntax** emphasizes readability and therefore reduces the cost of program maintenance.
 - Python supports **modules and packages**, which encourages program modularity and code reuse.
 - The Python interpreter and the extensive **standard library** are available in source or binary form without charge for all major platforms, and can be freely distributed.

Key Concepts about Python (2)

- Different kinds of programming languages to different people
 - Can be used a procedural language
 - Can be used a functional language
 - Can be used a object oriented language (true definition)
- 用了很久還是會忽然看到看不懂的使用法

Resources for Learning Python

- Main site:
 - <https://www.python.org/>
 - <https://www.python.org/doc>
- Useful sections
 - **Formal definition**
 - Language reference → useful
 - Library reference → reference for Python standard library; very useful
 - PEP (Python extension proposals) → very useful for advanced topics
 - <https://www.python.org/dev/peps/> (短篇故事集)
 - High-level thinking and history
 - <https://www.python.org/doc/essays/> Guido's Essay
 - Tutorial
 - <https://wiki.python.org/moin/BeginnersGuide> a lot of resources
 - <https://docs.python.org/3/tutorial/index.html> official tutorial

Resources for Learning Python (2)

- Book
 - Programming Python - by Mark Lutz (Foreword written by Guido van Rossum)
- Many tutorials on the web
- Blogs by van Rossum
 - Neo Python <http://neopythonic.blogspot.com/>
 - Python history: <http://python-history.blogspot.com/2009/01/pythons-design-philosophy.html>
 - Some old blogs <https://www.artima.com/weblogs/index.jsp?blogger=guido>