

29-10-25

1) What are the pros and cons of Python?

A) Pros (Advantages):-

1) Easy to learn and read: Python uses simple English-like syntax, making it beginner-friendly.

2) Cross-platform and open source: works on Windows, macOS, Linux, etc. completely free and open source.

3) Large standard library: Includes modules for file handling, regular expressions, web servers, databases, etc. and reduces the need to write extra code.



- 4) Extensive community support: Huge online community for learning, troubleshooting, and collaboration.
- 5) Supports multiple paradigms: Object-oriented, Procedural, and Functional programming styles.
- 6) Excellent for AI, Data Science, and web development: Libraries like Numpy, Pandas, TensorFlow, Django, Flask make it versatile.
- 7) Dynamic typing: No need to declare variable types explicitly; Python figures it out.

### Cons (Disadvantages):-

- 1) Slower execution speed
- 2) High memory usage
- 3) Weak in mobile development
- 4) Runtime errors
- 5) Not ideal for low-level programming.

### 2) History of Python?

- A)
- Late 1980s : Guido Van Rossum, a Dutch programmer, started developing Python at CWI (Centrum Wiskunde & Informatica) in the Netherlands.
- 1989 (December): Guido began working on Python as a hobby project to create a better scripting language than ABC.
- 1991 (February): Python 0.9.0 was released - included exceptions, functions, and the core data types (str, list, dict).
- 1994 : Python 1.0 released - introduced modules, exceptions, and functions.
- 2000 : Python 2.0 released - introduced garbage collection and Unicode support.
- 2008 : Python 3.0 released - redesigned for better readability and removed legacy issues (not backward compatible with



python 2)

2020 : python 2 officially retired (end of life on  
january 1, 2020).

Present : python 3.x continues as the main ~~version~~  
version, widely used in AI, data science,  
web, and automation.