

What are pros & cons of python?

### Pros

#### 1. Simplicity & Readability

Has a syntax that is similar to English, making it easier to learn, write & read.

#### 2. Huge Libraries & Packages

pandas for data analysis

Django for web development.

#### 3. Versatility

can be used for wide range of apps including web-development, DS, ML, scripting, etc.

#### 4. Portability

Python code can run on dif platforms (windows, macos, linux)

### Cons

#### 1. slower execution speed.

since it is an interpreted language python runs slower than compiled language.

#### 2. High memory usage.

python consumes more memory compared to other languages due to its dynamic typing

3. Not ideal for mobile app development.  
due to performance & memory limitations.

4. Runtime error possible

### History of Python

#### 1. Origin & creator

- Python was created by Guido Van Rossum, a Dutch programmer.
- He started developing it on December 1989 at CWI
- He named it after the British Comedy television show 'Monty Python's Flying Circus'.
- Python 0.9.0 (February 1991) — the first public release featuring basic data types & object-oriented capabilities.
- Python 1.0 (January 1994) — the official first major release including features like lambda, map, reduce & filter.
- Python 2.0 (October 2000) — introduced features like garbage collection, unicode support
- Python 3.0 (December 2008) — designed to address inconsistencies & it introduced new syntax, enhanced unicode support.
- Recent development — Python continues to evolve under the PSF (Python Software Foundation)