1) What are the pros and cons of Python?

Pros :

* Easy to learn & read - Simple syntax Similar to English, great for beginners.

* Large standard library - built in modules for networking, file handling, math, GUI etc

* Powerful for Data Science & AI - Supports top frameworks like Numpy, Pandas, Tensorflow, PyTorch.

* Cross - platform language - works on windows, Mac, Linux with no major code changes.

* Strong community support - Continuous improvements, active forums, reusable open-source code.

* Rapid development - faster to build and test applications, ideal for startups and prototypes.

* Highly versatile - used in web development, automation, machine learning, gaming, cybersecurity, IoT, etc.

Cons :

* Slower performance - because it is an interpreted language, not suitable for heavy computational real time applications.

* High memory usage - not ideal for memory constrained environments like embedded systems.

* Dynamic typing may lead to runtime errors - debugging can become harder in large projects

* Weak in mobile development - fewer frameworks compared to Android Java or Swift iOS apps.

* Global Interpreter Lock (GIL) limitation - affects CPU - based parallel processing.

2) What is the History of Python?

Python was created by Guido van Rossum at the Netherlands 'CWI Institute in the late 1980s. He wanted a language that was powerful yet simple to read and write. Python was first Publicly released in 1991 (Python 0.9.0) with features such as

* Functions   * Classes   * Exceptions
* Core data types like lists and dictionaries

In 2000, Python 2.0 was released adding

* Automatic garbage Collection

* Unicode support

* List Comprehensions

The major shift came with Python 3.0 in

2008 which:

* Removed outdate features

* Improved performance and memory handling

* Focused on long term Stability

Python 2 Support official ended in January 2020 making Python 3 the global Standard.

Today Python is one of the most popular languages in the world, widely used in:

Data Science, Machine Learning, AI /Automation CyberSecurity, web development.

Its Simplicity and ecosystem are the major reasons for its global adoption.