

1) Pros and Cons of Python:-

Pros:-

- * syntax is simple and easy to learn.
- * It is a quick development.
- * makes debugging and learning much easier.
- * Ready made libraries.
- * works on windows, macos, linux with minimal code changes.
- * It can be used for web development, data science, AI/ML, automation, game development and more.

Cons:-

- * slower execution speed compared to c++ (or) java.
- * Dynamic typing consumes more memory.
- * weak in mobile development.
- * Dynamic typing makes it flexible, but increases chances of runtime errors if types aren't handled properly.
- * can't run directly in browsers.
- * Game Performance is limited for large-scale projects.
- * Library versions and environment conflicts can be tricky to handle.

History of Python:-

Python is a high-level, interpreted programming language created by Guido van Rossum in 1980's in Netherlands. He began developing it in December 1989, and the first official version of Python is Python 1.0, was released on February 20 1991. It is designed as a successor to the ABC language, aiming to make it simple, readable, powerful with features like exception handling, dynamic typing and easy integration with other systems. The name "python" was not inspired by the snake but by the British Comedy show "Monty Python's Flying Circus".

And the second version Python 2.0 was released in 2000 with features like garbage collection and Unicode support, making it more robust and versatile. However Python 2.0 had several limitations, which led to the creation of Python 3.0 in 2008.

Python 3 was a major overhaul, improving consistency and readability, and it included features like better Unicode handling, a reorganized standard library, and modernized syntax. Python 2 ended on Jan 1 2020, marking a complete shift to Python 3. Python follows the principles of "pythons zen" and python's