

What is Python?

Python:

is dynamic programming language which supports several different programming paradigms: Procedural programming Object oriented programming Functional programming Standard: Python byte code is executed in the Python interpreter (similar to Java) → platform independent code

Why Python?

- Extremely versatile language Website development,
- data analysis, server maintenance, numerical analysis, ...
- Syntax is clear, easy to read and learn (almost pseudo code)
- Common language
- Intuitive object oriented programming
- Full modularity, hierarchical packages
- Comprehensive standard library for many tasks
- Big community
- Simply extendable via C/C++, wrapping of C/C++ libraries
- Focus: Programming speed

Zen of Python software principles that influence the design of Python:

1. Beautiful is better than ugly.
2. Explicit is better than implicit.
3. Simple is better than complex.
4. Complex is better than complicated.
5. Flat is better than nested.
6. Sparse is better than dense.
7. Readability counts.
8. Special cases aren't special enough to break the rules.
9. Although practicality beats purity.
10. Errors should never pass silently.
11. Unless explicitly silenced.