What Is New in Newer Versions of Python

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Python Guild @ Gen™

Disclaimers

- The talk is a live demo accompanied by examples:

    https://github.com/s3rvac/talks/tree/master/2024-08-23-What-Is-New-in-Newer-

    Versions-of-Python/examples

- The primary focus is on new features
- The selection is opinionated ;-)

What Python Versions Are We Going To Cover

- Python 3.10 (released in October 2021)
- Python 3.11 (released in October 2022)
- Python 3.12 (released in October 2023)
- Python 3.13 (to be released in October 2024)

Python 3.10

- Structural pattern matching
- New type union operator

Python 3.11

- Exception groups and except*
- Exceptions can be enriched with notes
- A built-in module for parsing of TOML files: tomllib

Python 3.12

- Type parameter syntax
- `typing.override()` decorator
- Syntactic formalization of f-strings

Python 3.13

- A better interactive interpreter
- Experimental support for running without GIL
- Experimental JIT compiler

Primary References

- What's New in Python 3.10
- What's New in Python 3.11
- What's New in Python 3.12
- What's New in Python 3.13
- Python Enhancement Proposals (PEPs)