

Python Best Practices 2026

Writing maintainable Python code requires following established conventions and modern practices.

Code Style:

- Follow PEP 8 for consistent formatting
- Use type hints for better IDE support and documentation
- Write docstrings for all public functions and classes
- Keep functions small and focused on single responsibility

Project Structure:

- Use virtual environments for dependency isolation
- Maintain a requirements.txt or pyproject.toml
- Organize code into logical packages and modules
- Include comprehensive tests with pytest

Modern Python Patterns

Python 3.10+ introduces powerful new features:

Structural Pattern Matching:

Use match/case statements for complex conditionals and data destructuring.

Dataclasses and Pydantic:

Define data models with automatic validation and serialization.

Async/Await:

Handle concurrent I/O operations efficiently with asyncio.

Context Managers:

Use with statements for resource management and cleanup.

Decorators:

Extend function behavior without modifying source code.