**OpenAtlas - Standards - # 17**

OpenAtlas is developed with some standards in mind.

# Open Source

Only open source libraries (e.g. jQuery) and open source software requirements (e.g. a PostgreSQL database) are used.

All non-code files (e.g. logo) should be open too (CC BY-SA 4.0).

This guaranties that the application can be shared as open source (GPL 2) e.g. on GitHub.

If 3rd party software or media is used it is important to:

- Check the license for compatibility
- Store them in openatlas/static/vendor
- Add a license file if available

# Python

## Tests

Python code should be covered by tests with assertions. We aim for 100% code coverage although some parts (e.g. mail functions) may be excluded with the **# pragma: no cover** option.

## Mypy

Mypy is an optional static type checker for Python that aims to combine the benefits of dynamic (or "duck") typing and static typing.

The first command is the "tolerant" one, the last is the most "strict".

```
mypy runserver.py --ignore-missing-imports
mypy runserver.py --ignore-missing-imports --disallow-untyped-defs
mypy runserver.py --ignore-missing-imports --allow-untyped-decorators --no-warn-return-any --strict
mypy runserver.py --strict
```

## Style and coding standards

We are using PEP 8 Style Guide for Python Code with the exception of allowing a line length of 100 characters.

There are various tools to check for coding standards e.g. in the IDE PyCharm you can configure hints, add the Mypy plugin and more.

Alternatively you can use tools like tabnanny in the root of your project.

```
python -m tabnanny .
```

# HTML

We are using HTML 5 and the site should be validating correctly.

Exceptions may be acceptable if (harmless) non valid HTML 5 is produced by 3rd party libraries.

# Bugs

Of course we do our best to avoid them in the first place but if bugs in already released versions get apparent they always have the highest priority.