

template

me

March 18, 2022

1 Configuring vim

The following configuration in `.vimrc` is minimalistic and pragmatic:

```
:imap jj [Esc] set expandtab ts=4 sw=4 ai
```

The command `imap` replaces the use of the `esc` key with a double pressing of `j`. `Expandtab` converts tab spaces in `N` blank spaces, while `ts=4` set this `N` equal to 4. The autoindentation is given by `ai` with a width of value `sw=4`. Typing `:retab` ensures to replace the tabs with whitespaces in the current (previously created) file.

2 Pylint and Pytest

Writing clean code is essential: not only from an algorithmic viewpoint (performance), but also regarding readability (maintenance).

The use of `pylint` gives a good insight concerning the quality of the code w.r.t. this last criteria, and its use is straightforward: just type `'pylint pythonfile.py'` and you'll get an output of suggestions.

Every time you implement a new function, in principle you should also write a test to check that this function works (up to some reasonable level) as expected. For example you can test against some trivial conditions, easy cases or extremal values on which the code has an easy-to-compute behavior. Writing tests can seem at a first sight time consuming, but it is very convenient in the long run. Everytime you modify some parts of your code, if the tests are still successful, you have some chance to believe you didn't damage your work.

In python you can use `pyunit`. Running `pyunit` on a script will just run all functions whose name start with the word `'test'` followed by an underscore. Remember that each function of such a kind should end with an assert condition.