

COMP10001 Foundations of Computing

Semester 1, 2020

Programming Style Guide

Timothy Baldwin, Nic Geard and Marion Zalk
(based heavily on an earlier version by Marco Lui)

— VERSION: 1674, DATE: MARCH 29, 2020 —

“[...] code is read much more often than it is written. The guidelines provided here are intended to improve the readability of code and make it consistent across the wide spectrum of Python code.”
– PEP8

This document is based on <http://www.python.org/dev/peps/pep-0008/>. It is a condensed version intended for use by first-year students. It should be sufficient to get you started on programming best-practice early in your programming career. In the interest of brevity we have omitted the extensive examples provided in PEP8, and summarized the practices in point form. We have also selected only the most important, but full compliance with PEP8 is highly desirable. If you are uncertain about a point, please refer first to the examples in PEP8. If you still have doubts, please talk to your tutor or demonstrator, or the lecturer.

- 4 spaces per indent level
- use only spaces (do not use tab, unless the tab key inserts spaces automatically, as is the case with Grok and IDLE)
- lines must not exceed 79 characters
- use blank lines to separate logical sections (e.g. between functions or major sections of code associated with a given comment)
- avoid multiple statements (e.g. separated by semi-colons) on the same line
- always start a new line after `if`, `elif`, `else`, `while`, `for`, etc.
- make sure your comments do not contradict your code
- do not state the obvious in comments
- never use the characters `l`, `o` or `I` as single character variable names
- function names should be lowercase, with words separated by underscores as necessary to improve readability
- constants should be written in all capital letters with underscores separating words
- don't compare Boolean values to `True` or `False` using `==`

There is a tool to check compliance against a subset of PEP8 (as outlined above) built in to Grok, that your code will be tested against each time you submit. If you get no warning messages when you submit, your code is PEP8 compliant.¹

¹For the subset of PEP8 we use in this subject, at least.