M1
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# Quality of code

Code needs to be high quality to ensure it preforms as expected and can be easily re-used and maintained.

**How is quality measured?**

Quality may be subjective, but there are five aspects to code quality, and they are as follows;

Legibility
Code should be readable to humans – after all, it's only going to be written once but will be read many more times. It should be obvious to the reader what the code is supposed to do.

Testable
the code should be designed to facilitate testing – so it should be simple and each part should be separate so that it is easy to identify where there are mistakes.

Flexible
the code should be easily adaptable. The more things that are hard-coded, the harder it becomes to maintain and re-use the code.

Compliance
The code should comply with its requirements – what it is required to do.

Economical
The code shouldn't use too much of the available resources – memory, CPU cycles, etc.

Ideally, these aspects should be prioritized in this order, as each one supports the one after it – legible code is easier to test, testable code is easier to make flexible, flexible code is generally more compliant, and it is easier to make compliant code economical.