

DEFINING CLEAN CODE

What is Clean Code?

Clean Code is code that is consistent, intentional, adaptable, and responsible; which means code that is easy to understand and change, operates smoothly at runtime, and contains no technical debt – therefore making it fit for purpose.

It is the standard for all code, which includes main source code, configuration code, infrastructure code, scripting code, test code, as well as third-party code.

Clean Code is consistent.

The code is written in a uniform and conventional way. All the code looks similar and follows a regular pattern, even with multiple contributors at different times.

For example, when code is formatted well, it is systematic, which reduces differences between authors' coding styles and makes code much easier to review by peers on pull requests.

Consistent code is formatted, conventional, and identifiable.

Clean Code is intentional.

The code is clear, precise, and purposeful. Intentional code reads like it is written with attention and care to convey its purpose. Every instruction makes sense, is adequately formed, and simply communicates its behavior.

For example, clear code is self-explanatory and transparently communicates its functionality, making it easier to understand the program and reducing the likelihood of bugs being introduced.

Intentional code is clear, logical, complete, and efficient.

Clean Code is adaptable.

The code is structured to evolve easily and with confidence. It makes extending or repurposing its parts easy and promotes localized changes without undesirable side effects.

For example, when code is modular it is organized and distributed to emphasize the separation between its parts, making it easier to manage and clearly define the relationships within.

Adaptable code is focused, distinct, modular, and tested.

Clean Code is responsible.

The code takes into account its ethical obligations on data and the potential impact of societal norms.

For example, when we classify code as lawful, we refer to it as code that respects licensing and copyright regulation, enabling a creator to license their own code and respect others' licensing rights. Equally as important, code should be trustworthy and should not contain secrets.

Responsible code is lawful, trustworthy, and respectful.

Making code better is how Sonar got started. Now, we're making code **clean**. Clean Code is the standard that you and your organization should embrace to ensure that your software performs for years to come.