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Clean Code:

A Handbook of
Agile Software Craftsmanship

Chapter 01: Clean Code

What is clean code?
What good is it to me?

Robert C. Martin states:

– Writing dirty code will lead to failure in our project.

– Writing clean code may look difficult and time consuming, but it actually speeds the development and debugging up.

– To clean a dirty code and rewrite it is doing an extra job, but it is worth it. Because it leads to value creation.

What is clean code?
What good is it to me?

Spending time for cleaning the code is not only cost-effective, but also the condition of professional survival.

Disturbances quickly lead to slowness and deadline violation. The only way to move quickly and meet the deadline is to keep the code clean at its highest level and at all times. So the importance of clean code can not be denied. In the first chapter of this book we learn more about the concept of clean code and we try to check several different definitions of it.

Why should my code be clean?

Martin Fowler(British Software Engineer)
Any fool can write a code that a computer understands. Good programmers write a code that humans can understand.

So the code has to be clean in order to be easy-to-understand by a human. Which can be the author of the code or someone else.

Is it worth to consume time to keep my code clean?

% 100

Considering the time and energy consumed for debugging a dirty code, we find it absolutely effective to clean our code.

What happens if my code is not clean?

Bad code is never gone. Meaning it doesn't matter how much we clean the code. It still smells bad. But the bad smell better be reduced as much as possible.

There is a phase in software development where adding new features to the program or editing the codes that have a bug will lead to more dysfunctionality in the code. The code is so unrecognized that in some point it will be impossible to change it. This phase is called *wading.* Because the software is taking its final steps. The programmer is struggling in a swamp and walks among the hidden traps, hopping to find a way out. But the only thing he finds is more senseless codes.

What do the pioneers of Software Industry say about clean code?

I like my code to be elegant and efficient. The logic should be straightforward to make it hard for bugs to hide.

Bjarne Strostrup

Clean code is simple and direct. Clean code is read like a well-written prose. Clean code never obscures the designer's intent but rather is full of crisp abstractions and straightforward lines of control.

Grady Boosh

What do the pioneers of Software Industry say about clean code?

Dove Thomas

Clean code can be read, and enhanced by a developer other than its original author. It has unit and acceptance tests. It has meaningful names. It provides one way rather than many ways for doing one thing. It has minimal dependencies, which are explicitly defined, and provides a clear and minimal API. Code should be literate since depending on the language, not all necessary information can be expressed clearly in code alone.

Michael Feathers

Clean code always looks like it was written by someone who cares. There is nothing obvious that you can do to make it better . All of those things were thought about by the code's author, and if you try to imagine improvements, you are led back to where you are, sitting in appreciation of the code someone left for you—code written by someone who cared deeply about the craft.

In brief clean code has these features:

- It is short and minimal.
- It has comprehensive tests.
- It is efficient and easy to maintain and develop.
- Reading it is like reading a newspaper.
- Naming is the way that the reader understands the intent of the author by reading the name of modules(class, method, variable, ...).
- Every module is made for one and only one purpose.