CLEAN CODE

Clean Code

“ The goal of all software-design techniques is to break a complicated problem into simple pieces

Steve McConnell

Separation of concerns

Eliminate the tight-coupling

Clean Code Principle

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Clean Code
Separate construction & when using it

“ Software system should separate the startup process, when the application objects are constructed and the dependencies are "wired", from the runtime logic that takes over after startup

Uncle Bob

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Clean Code
Separation of Concerns

“ Software systems are unique compared to physical systems. Their architectures can grow incrementally, if we maintain the proper separation of concerns

Uncle Bob

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Clean Code

Getting Clean via Emergent Design

The 4 simple design rules

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Clean Code
Getting Clean via Emergent Design

Simple Design Rule 1

Run All the Tests

- Systems that aren't testable aren't verifiable
- A system that cannot be verified should never be deployed

Make a testable system:

- Conform to the SRP: small and single purpose class/function
- Loose coupling and high cohesion

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Simple Design Rule 2

No Duplication

duplication
- Additional work
- Additional risk
- Additional unnecessary complexity

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Getting Clean via Emergent Design

Simple Design Rule 3

Expressive

- ***We are*** deep in an understanding of the problem we're trying to solve at the time we write code.
- ***Other maintainers*** of the code aren't going to have so deep an understanding

✓ Choosing good names, using standard nomenclature!

✓ Keeping your functions and classes small!

✓ Using well-written unit tests as documentation!

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Simple Design Rule 4

Minimal Classes and Methods

this rule has the lowest priority

Our goal is to keep our overall system small while we are also keeping our functions and classes small.

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Clean Code
System Emergence: Conclusion

Your simple system today can become a complex system tomorrow

Keep in mind: **Separation of Concerns**

Keep the rules:
(1) Run All the Tests
(2) No Duplication
(3) Expressive
(4) Minimal Classes and Methods

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