no SOLID evidence

...how to take
a 5 letter acronym
no one can use
and end with
two phrases you can

hey hi hello

derek graham @deejaygraham


sage


Developer!
DeveloperDeveloper
UK Community Events
Noisebridge Hacker Space
https://noisebridge.net
83c.wiese.sf.ca.usa


NE
BYTES

Notifications

All | Mentions

Brian Marick and **Kent Beck** Retweeted your Tweet

very excited for tonight's event - @GeePawHill will be with us discussing "Steps and Value in Change-Harvesting"

Details here: ti.to/ne-bytes/june-... pic.twitter.com/lXrGuObTdj

SOLID?

OLD MAN YELLS AT CLOUD

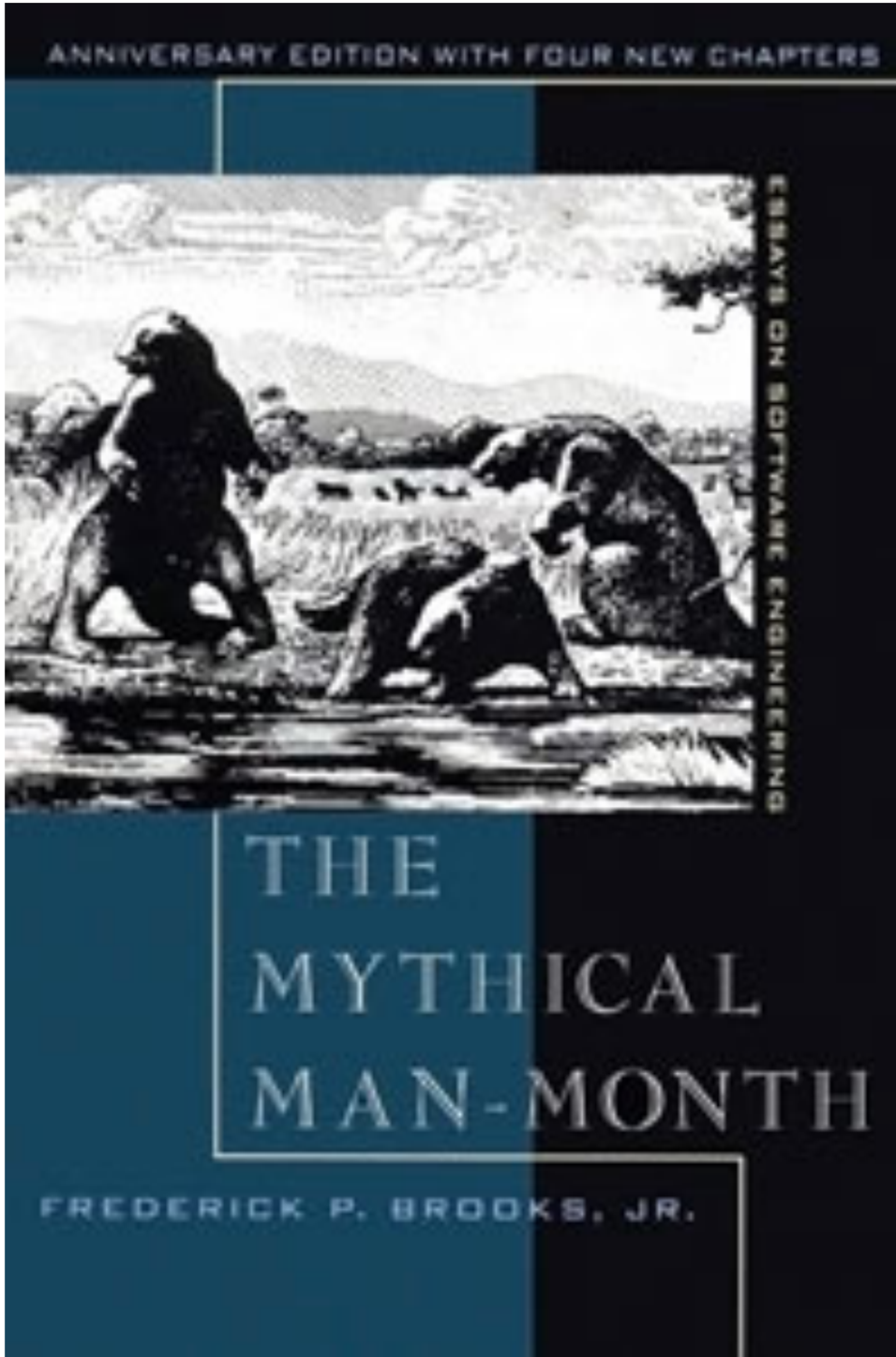

BEEN THERE.DONE THAT
CAN'T REMEMBER


C
123
SESAME STREET

Code is Hard

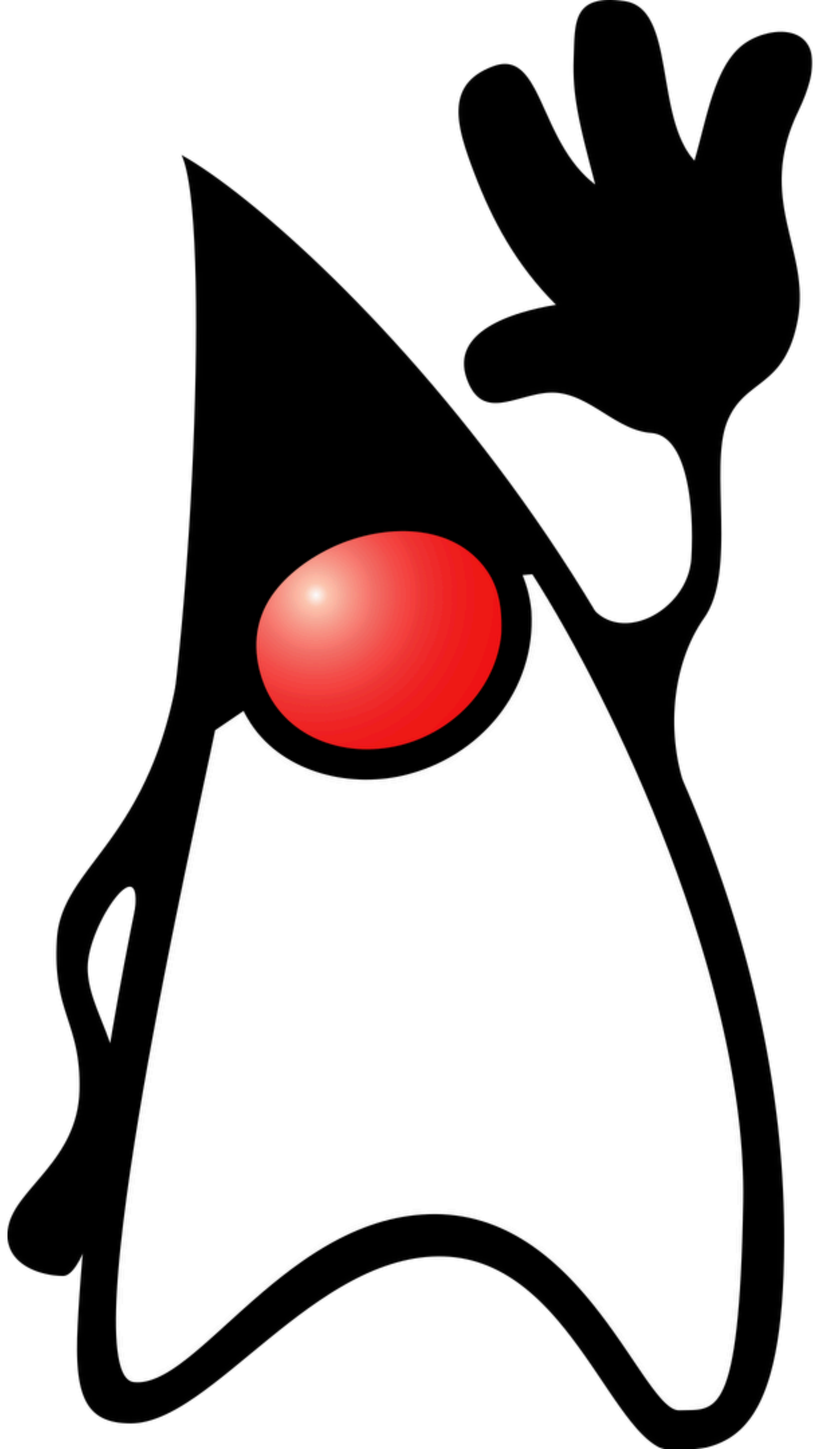

4
1

Essential & Accidental



Wat?


Robert C. Martin Series
Clean Code
A Handbook of Agile Software Craftsmanship
Foreword by James O. Coplien
Robert C. Martin



SOLID, dude!

- Single Responsibility
- Open Closed
- Liskov Substitution
- Interface Segregation
- Depedency Inversion

SOLID

Each item of code should have a **single** responsibility

“…one reason to change”

Each software module has one, and only one, reason to change

- ~~Single Responsibility~~ Cohesion
- Open Closed
- Liskov Substitution
- Interface Segregation
- Depedency Inversion

SOLID

Open for extension but
Closed for modification

Object-Oriented Software Construction

5 Principles of Software Construction

Linguistic Modular Units

Self-Documentation

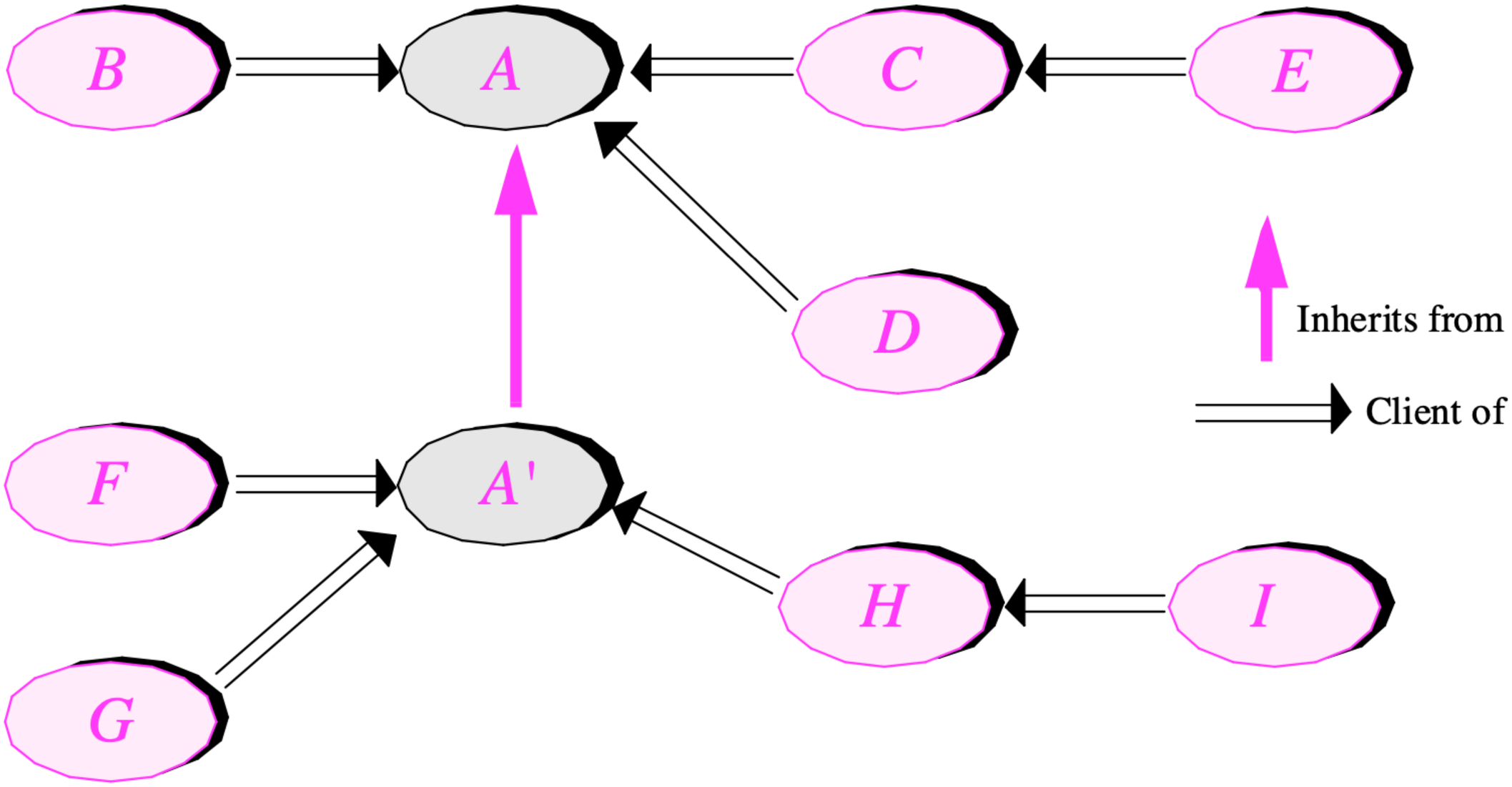
Uniform Access

Open-Closed

Single Choice

- A module is said to be open if it is still available for extension. For example, it should be possible to expand its set of operations or add fields to its data structures.

- A module is said to be closed if it is available for use by other modules. This assumes that the module has been given a well-defined, stable description (its interface in the sense of information hiding). At the implementation level, closure for a module also implies that you may compile it, perhaps store it in a library, and make it available for others (its *clients*) to use. In the case of a design or specification module, closing a module simply means having it approved by management, adding it to the project's official repository of accepted software items (often called the project *baseline*), and publishing its interface for the benefit of other module authors.


B
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Inherits from
Client of

- ~~Single Responsibility~~ Cohesion
- ~~Open Closed~~ Coupling
- Liskov Substitution
- Interface Segregation
- Depedency Inversion

SOLID

One subclass can be swapped out for another

Liskov

Liskov

Liskov

Liskov

IEEE Von Neumann

ACM Turing

- ~~Single Responsibility~~ Cohesion
- ~~Open Closed~~ Coupling
- ~~Liskov Substitution~~ Coupling
- Interface Segregation
- Depedency Inversion

SOLID

Many small, specific interfaces are better than one general-purpose interface

- ~~Single Responsibility~~ Cohesion
- ~~Open Closed~~ Coupling
- ~~Liskov Substitution~~ Coupling
- ~~Interface Segregation~~ Cohesion
- Depedency Inversion

SOLID

Don't depend on concrete types, depend on abstractions

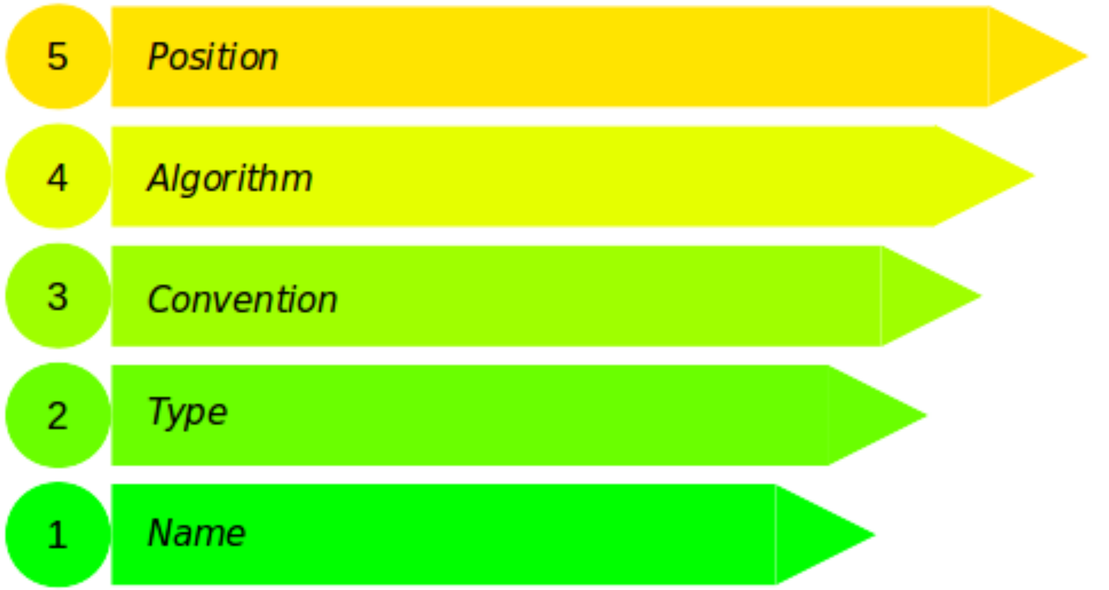
- ~~Single Responsibility~~ Cohesion
- ~~Open Closed~~ Coupling
- ~~Liskov Substitution~~ Coupling
- ~~Interface Segregation~~ Cohesion
- ~~Depedency Inversion~~ Coupling

Connascence

… a change in one would **require** the other to be modified in order to maintain the overall **correctness** of the system

Dynamic:

Static:



Simple Design

- Appropriate
- Factored
- Communicative
- Minimal

- Tests
- Duplication
- Clarity
- Smallest

- Tests
- Duplication
- Clarity
- Smallest

- Tests
- Duplication
- Clarity
- Smallest

So...

- Single Responsibility
- Open Closed
- Liskov Substitution
- Interface Segregation
- Depedency Inversion

- ~~Single Responsibility~~ Cohesion
- ~~Open Closed~~ Coupling
- ~~Liskov Substitution~~ Coupling
- ~~Interface Segregation~~ Cohesion
- ~~Depedency Inversion~~ Coupling

- Cohesion
- Coupling
- Connascence

- Tests
- Duplication
- Clarity
- Smallest

- Tests
- Duplication
- Clarity
- Smallest

Notice and Improve the Names of Things


@deejaygraham


Questions
Answers