# **SOLID** principles

- http://butunclebob.com/ArticleS.UncleBob.PrinciplesOfOod
  - Articles also available in 'References' section of: <a href="https://en.wikipedia.org/wiki/SOLID">https://en.wikipedia.org/wiki/SOLID</a>

### Tests - TDD

- <a href="http://misko.hevery.com/code-reviewers-guide/">http://misko.hevery.com/code-reviewers-guide/</a>
- http://misko.hevery.com/attachments/Guide-Writing%20Testable%20Code.pdf
- YouTube's search:
  - o misko hevery How to Write Clean, Testable Code
  - https://www.youtube.com/watch?v=XcT4yYu\_TTs
  - o misko hevery The Clean Code Talks -- Inheritance, Polymorphism, & Testing
  - https://www.youtube.com/watch?v=4F72VULWFvc&list=PLED6CA927B41FF5BD
- https://martinfowler.com/articles/mocksArentStubs.html
- https://blog.cleancoder.com/uncle-bob/2014/05/10/WhenToMock.html
- https://blog.cleancoder.com/uncle-bob/2014/05/14/TheLittleMocker.html
- Extreme Programming Explained, Embrace Change Kent Beck
- xUnit Test Patterns, Refactoring Test Code Gerard Meszaros
- https://www.verifysoft.com/fr code coverage levels.html
- Google search: Mock Brittle tests

# Patterns and anti patterns

- Design Patterns: Elements of Reusable Object-Oriented Software GOF Erich Gamma, Richard Helm, Ralph Johnson et John Vlissides
- Design Patterns For Dummies Steve Holzner

### **Getter-setter**

- http://typicalprogrammer.com/doing-it-wrong-getters-and-setters
- <a href="https://www.javaworld.com/article/2073723/why-getter-and-setter-methods-are-evil.html">https://www.javaworld.com/article/2073723/why-getter-and-setter-methods-are-evil.html</a>
- <a href="https://martinfowler.com/bliki/GetterEradicator.html">https://martinfowler.com/bliki/GetterEradicator.html</a>

# **Singleton**

• Google search: singleton consider evil, harmful

## **Immutable Object**

• Google search: immutable object

# Refactoring

Refactoring: Improving the Design of Existing Code - Martin Fowler, Kent Beck (Contributor),
 John Brant (Contributor), William Opdyke, don Roberts

### Java

• Effective Java: Programming Language Guide - Joshua Bloch

## **Misc**

- Working Effectively with Legacy Code Michael C. Feathers
- The Pragmatic Programmer Andrew Hunt, David Thomas
- Code Complete Steve McConnell
- The Mythical Man-Month Brooks Jr., Frederick P.
- Out of the Tar Pit Ben Moseley, Peter Marks
- The art of computer Programming Donald Knuth

# **Domain Driven Design**

- Domain-Driven Design Vite fait Abel Avram & Floyd Marinescu
- Domain-Driven Design: Tackling Complexity in the Heart of Software Eric Evans

# **Functional programming**

Ouick articles:

http://blog.jenkster.com/2015/12/what-is-functional-programming.html
https://maryrosecook.com/blog/post/a-practical-introduction-to-functional-programming
https://www.smashingmagazine.com/2014/07/dont-be-scared-of-functional-programming/
https://blog.cleancoder.com/uncle-bob/2012/12/22/FPBE1-Whats-it-all-about.html

#### https://wiki.haskell.org/Functional programming

- Structure and Interpretation of Computer Programs Harold Abelson and Gerald Jay Sussman with Julie Sussman
  - https://mitpress.mit.edu/sites/default/files/sicp/index.html
  - https://www.youtube.com/playlist?list=PLE18841CABEA24090
  - https://berkeley-cs61as.github.io/index.html
- YouTube's search:

Anjana Vakil

Anjana Vakil: Immutable data structures for functional JS

https://www.youtube.com/watch?v=Wo0qiGPSV-s

### More OOP

- Object-Oriented Analysis and Design with Applications Graddy boch, Robert Maksimchuk, Michael Engle
- Object-Oriented Software Engineering: A Use Case Driven Approach Ivar Jacobson
- Information hiding (vs encapsulation):
  - Protected Variation: The Importance of Being Closed Craig Larman https://martinfowler.com/ieeeSoftware/protectedVariation.pdf
  - 1971 On the criteria to be used in decomposing systemsinto modules David Lorge.
     Parnas

https://prl.ccs.neu.edu/img/p-tr-1971.pdf

• Google search: Traits/mixin

# **Architectures**

### Clean architecture

https://blog.cleancoder.com/uncle-bob/2012/08/13/the-clean-architecture.html

### **MVC**

• <a href="http://heim.ifi.uio.no/~trygver/themes/mvc/mvc-index.html">http://heim.ifi.uio.no/~trygver/themes/mvc/mvc-index.html</a>

#### **DCI**

- https://klevas.mif.vu.lt/~donatas/Vadovavimas/Temos/DCI/2009%20The%20DCI %20Architecture%20-%20A%20New%20Vision%20of%20OOP.pdf
- https://folk.uio.no/trygver/2008/commonsense.pdf
- http://fulloo.info/Documents/CoplienReenskaugASA2012.pdf

### **GUI** architectures

http://griffon-framework.org/tutorials/5 mvc patterns.html

#### Fowler on GUI architecture

- <a href="https://martinfowler.com/eaaDev/uiArchs.html">https://martinfowler.com/eaaDev/uiArchs.html</a>
- https://martinfowler.com/eaaDev/OrganizingPresentations.html

#### **MVP**

- MVP: Model-View-Presenter, The Taligent Programming Model for C++ and Java Mike Potel <a href="https://www.wildcrest.com/Potel/Portfolio/mvp.pdf">https://www.wildcrest.com/Potel/Portfolio/mvp.pdf</a>
- TWISTING THE TRIAD, The evolution of the Dolphin Smalltalk MVP application framework
   Andy Bower, Blair McGlashan

http://www.object-arts.com/downloads/papers/TwistingTheTriad.PDF

#### **MVVM**

<a href="https://blogs.msdn.microsoft.com/johngossman/2005/10/08/introduction-to-modelviewviewmodel-pattern-for-building-wpf-apps/">https://blogs.msdn.microsoft.com/johngossman/2005/10/08/introduction-to-modelviewviewmodel-pattern-for-building-wpf-apps/</a>

## **Boundary – Control – Entity**

Search it with google, or read the Ivar Jacobson book in "More OOP" section

# **Uncle Bob (Robert C. Martin)**

- Agile Principles, Patterns, and Practices in C# Martin C. Robert, Martin Micah
- The Clean Coder, A Code Of Conduct For Professional Programmers Robert C. Martin
- Clean Code, A Handbook of Agile Software Craftsmanship Robert C. Martin
- Clean Architecture, a craftsman's guide to software structure and design Robert C. Martin
- http://blog.cleancoder.com/
- https://sites.google.com/site/unclebobconsultingllc/

- Old blog: <a href="http://butunclebob.com/ArticleS.UncleBob">http://butunclebob.com/ArticleS.UncleBob</a>
- <u>YouTube's search:</u> Uncle bob

## **Martin Fowler**

• <a href="https://martinfowler.com/">https://martinfowler.com/</a>

# **Rich Hickey**

- YouTube's search:
- Simple Made Easy 2012 Rich Hickey

 $\underline{https://www.youtube.com/watch?v=oytL881p-nQ}$ 

- The Value of Values with Rich Hickey
  - https://www.youtube.com/watch?v=-6BsiVyC1kM
- Many other YouTube conferences.

# **Miscellaneous**

# **DSL (Domain Specific Language)**

- https://www.martinfowler.com/articles/languageWorkbench.html
- https://martinfowler.com/books/dsl.html
- <a href="https://martinfowler.com/bliki/SyntacticNoise.html">https://martinfowler.com/bliki/SyntacticNoise.html</a>