Coding Dojo Challenge
XP2013

Emily Bache
emily@bacheconsulting.com
@emilybache on twitter

The Coding Dojo

- The dojo is the place where you go every week to practice and learn karate

Practical Coding Skills

- using IDE keyboard shortcuts
- Pair Programming
- Test Driven Development
- Refactoring
- Designing good Test Cases
- Working incrementally, committing code often
- Designing using SOLID principles
- Object Oriented Paradigm
- Functional Programming

Learn on-the-job

Attribution: flickr user Lisamarie Babik

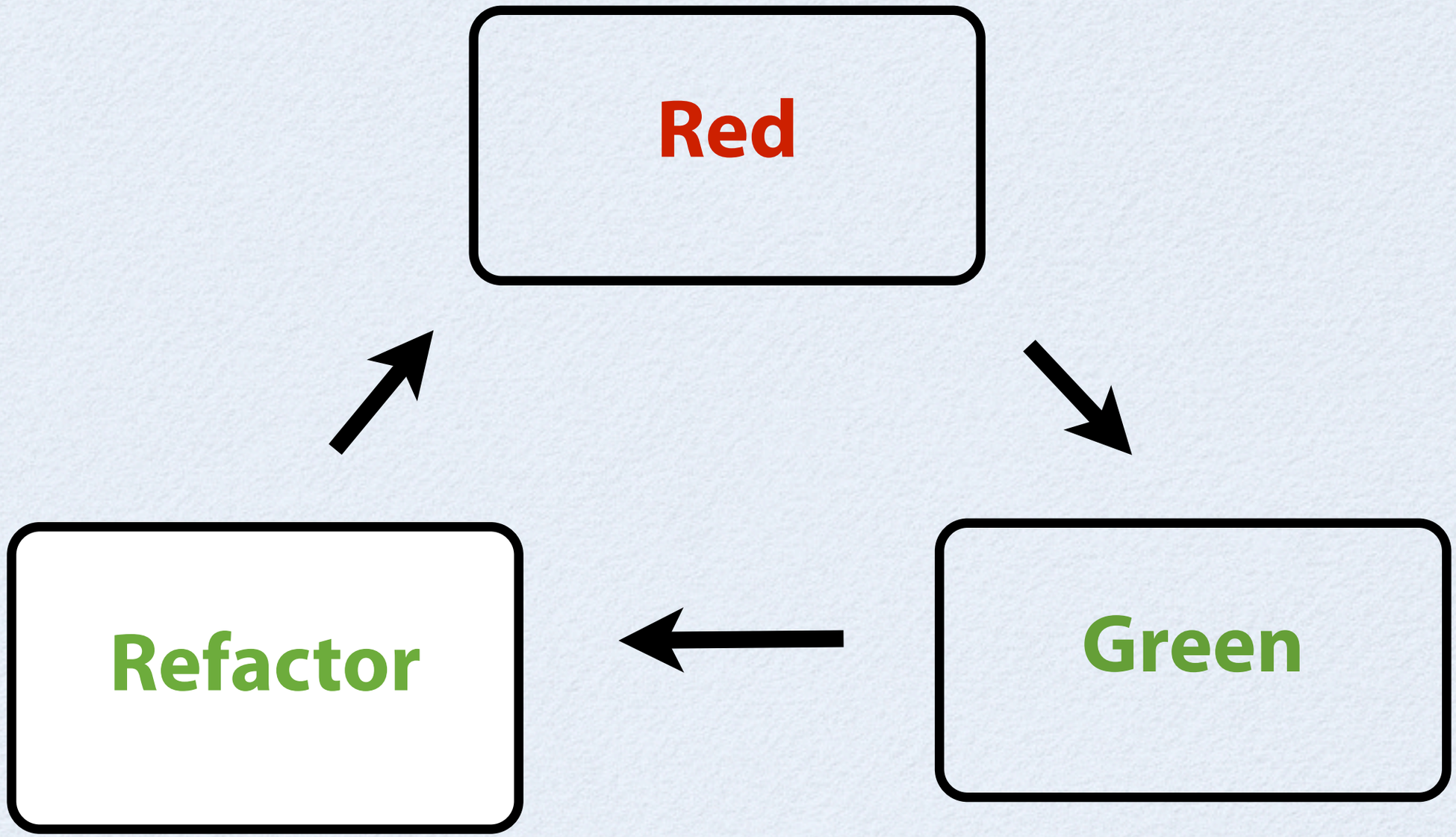
Pair Program & Get Stuff Done

Learning to Ski

flickr user fiction300

Snowplow vs Parallel Turns

Test Driven Development



Incidental vs Deliberate

Incidental Practice:

Repeatedly doing something you can already do

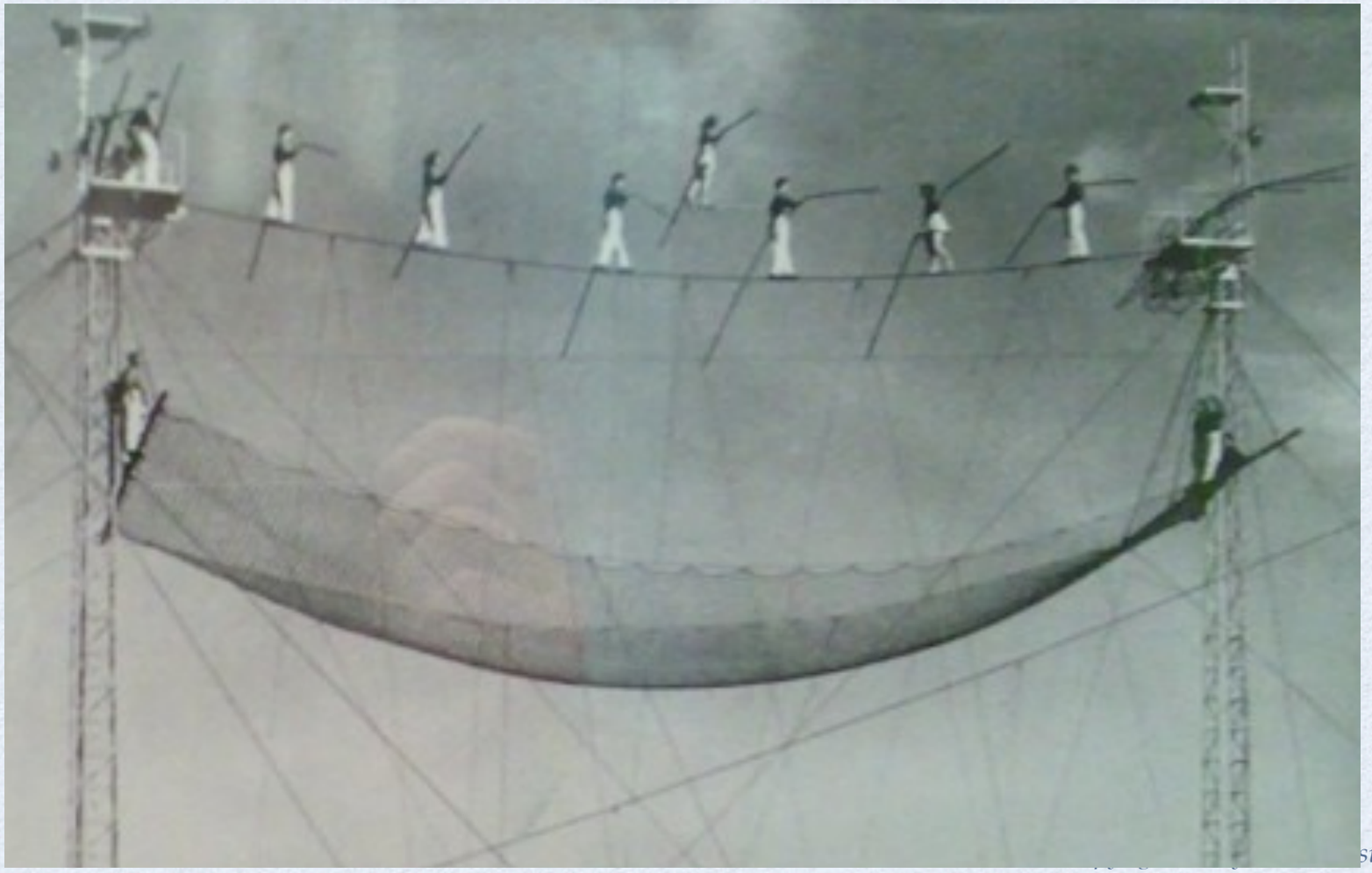
Deliberate Practice:

Trying to do something you can't comfortably do

Breaking down a skill into components you practice separately

Deliberate Practice

- Need to feel safe
- Need to feel motivated



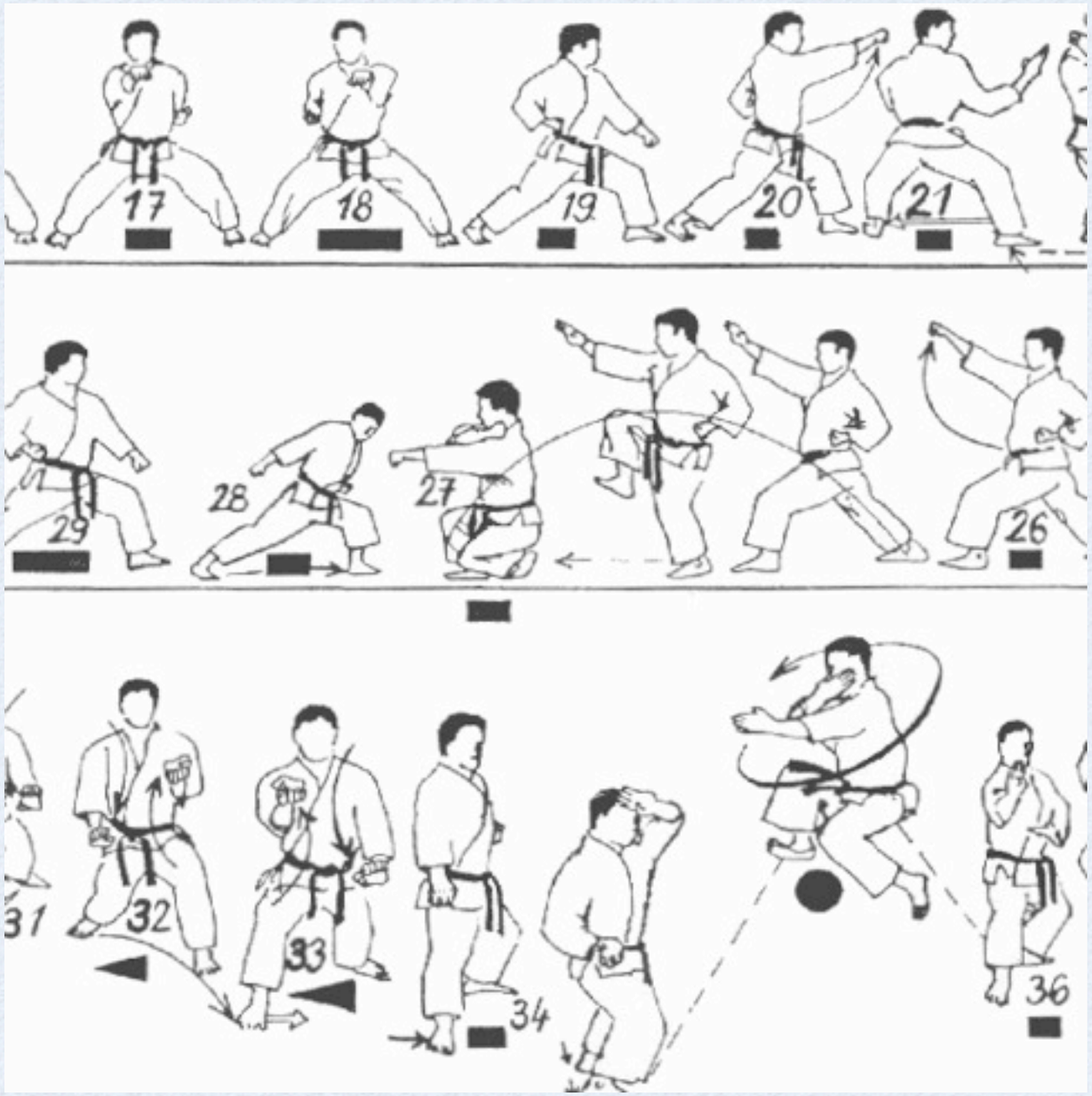
flickr user antony_mayfield

Training

"Under pressure, you don't rise to the occasion, you **sink to the level of your training**.
That's why we train so hard"

-- A US Navy Seal
(according to twitter)

Code Kata: TDD moves



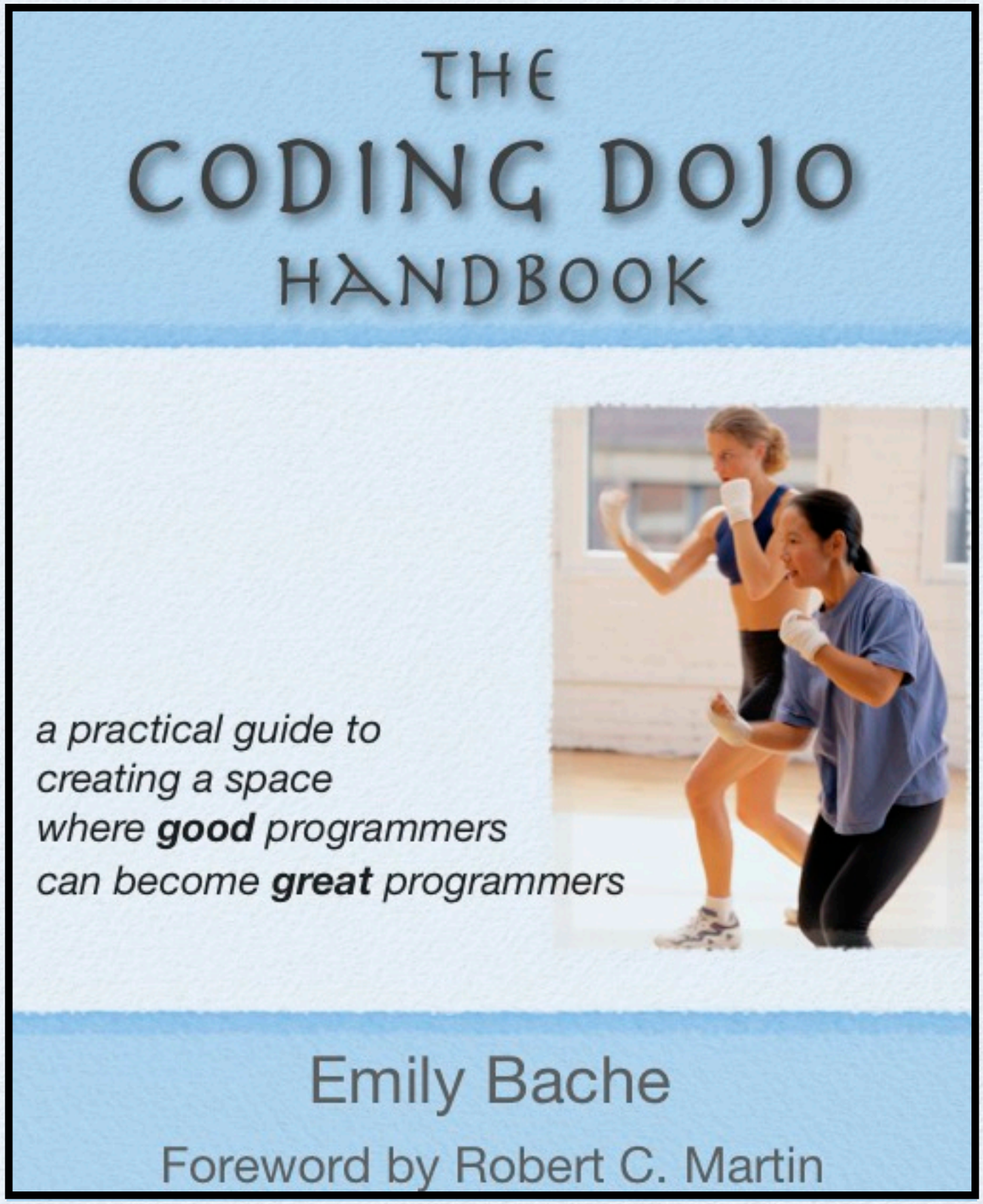
‘Pragmatic’ Dave Thomas

Coding Dojo Summary

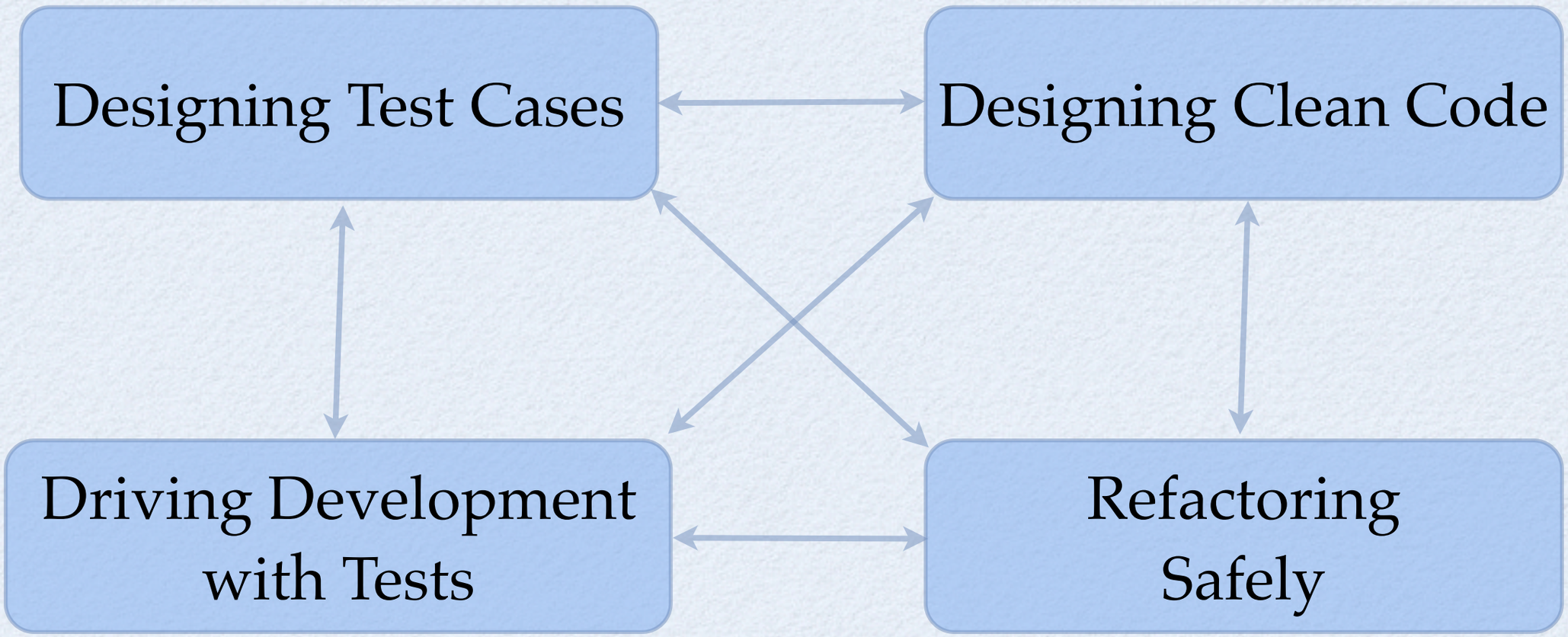
- Better coding skills
- Deliberate Practice
- A safe environment
- Discuss actual code
- have fun!

Available from:

http://leanpub.com

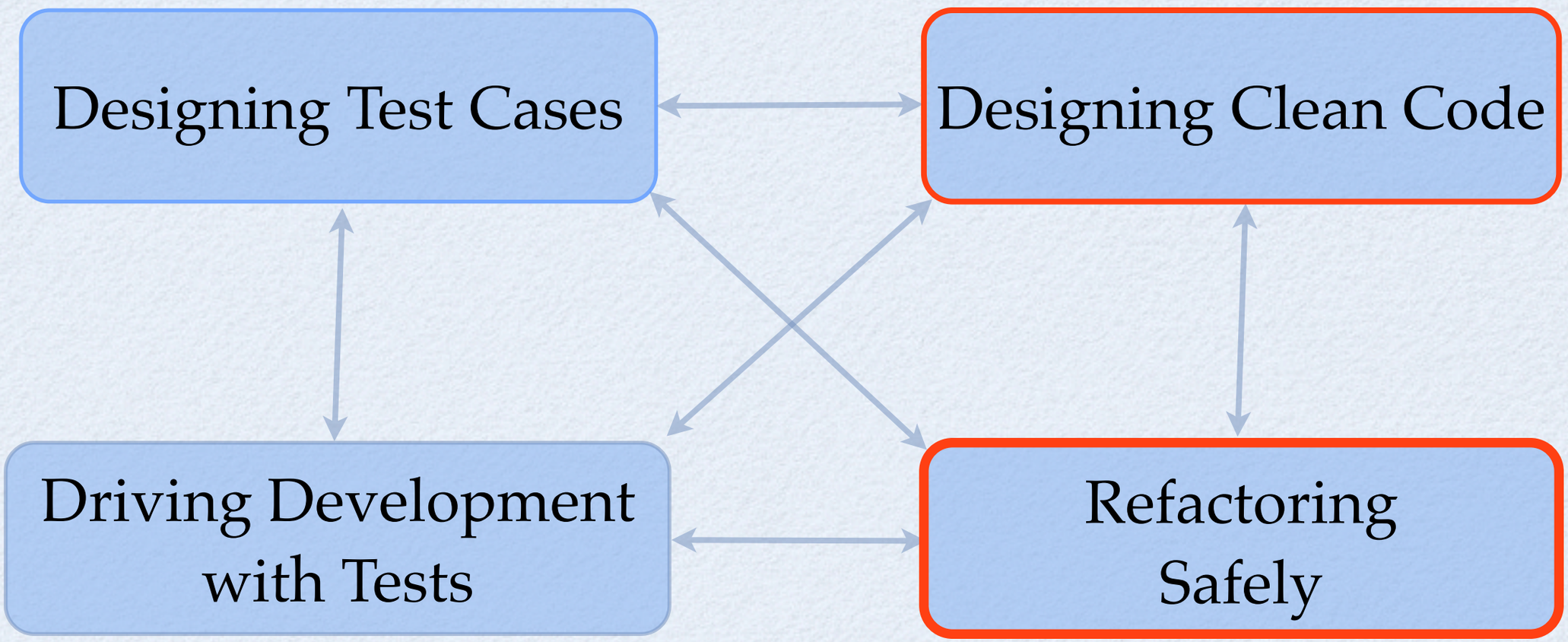


TDD skills



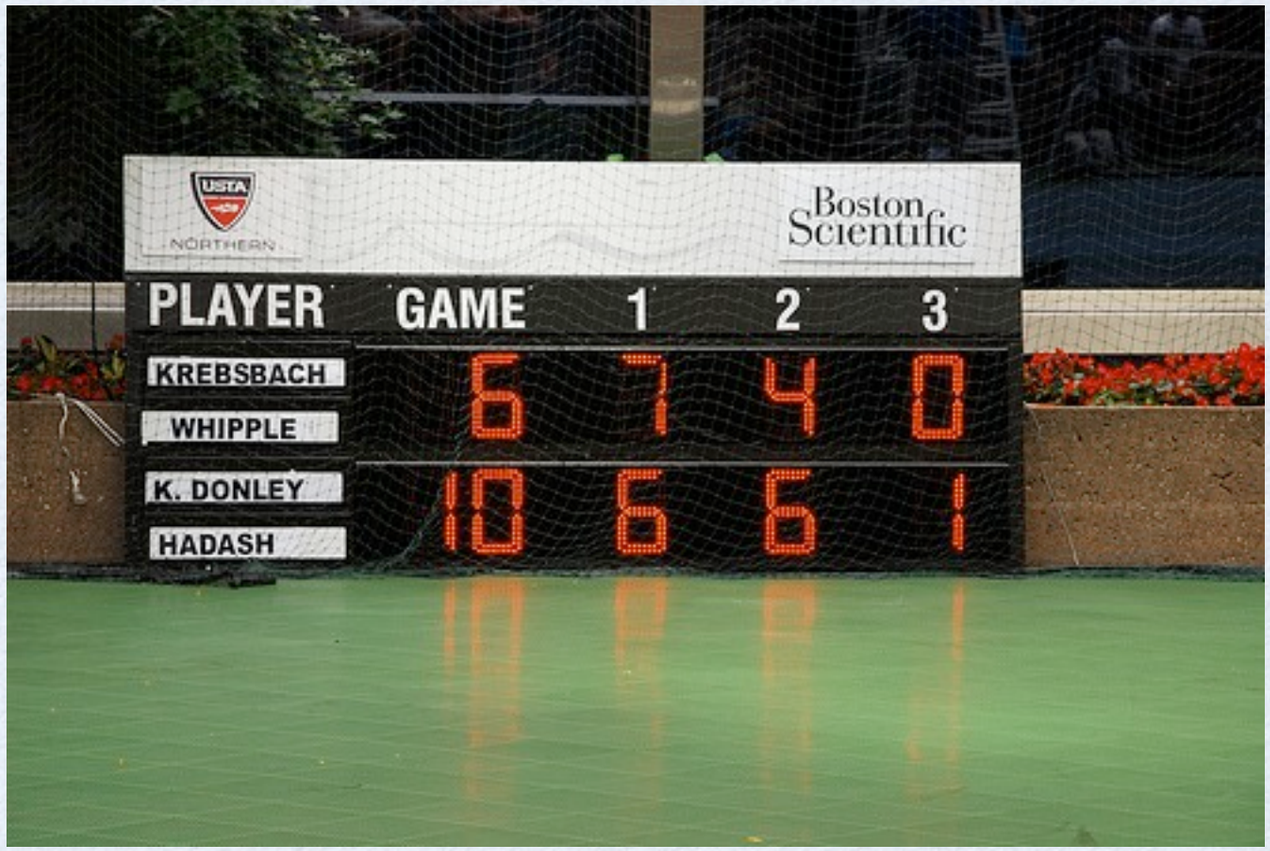
In the dojo we can focus on one at a time

Tennis Kata



Tennis

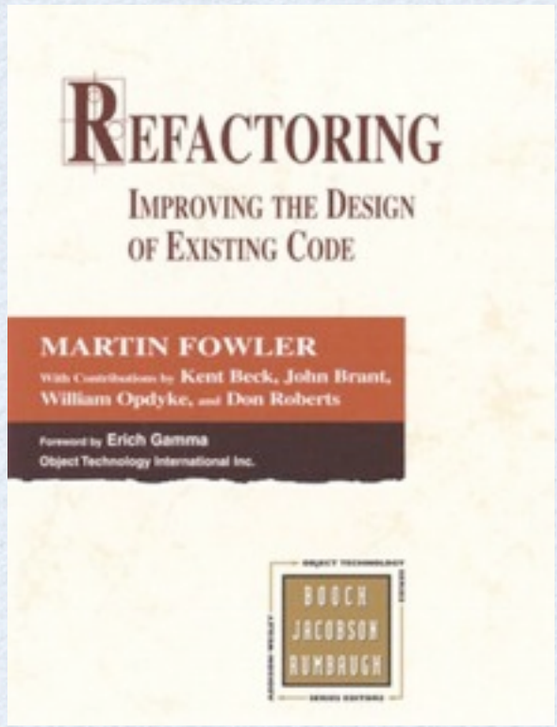
- Your colleague wrote this code for the Tennis Society.
- "Tidy it up and give him feedback" says your boss



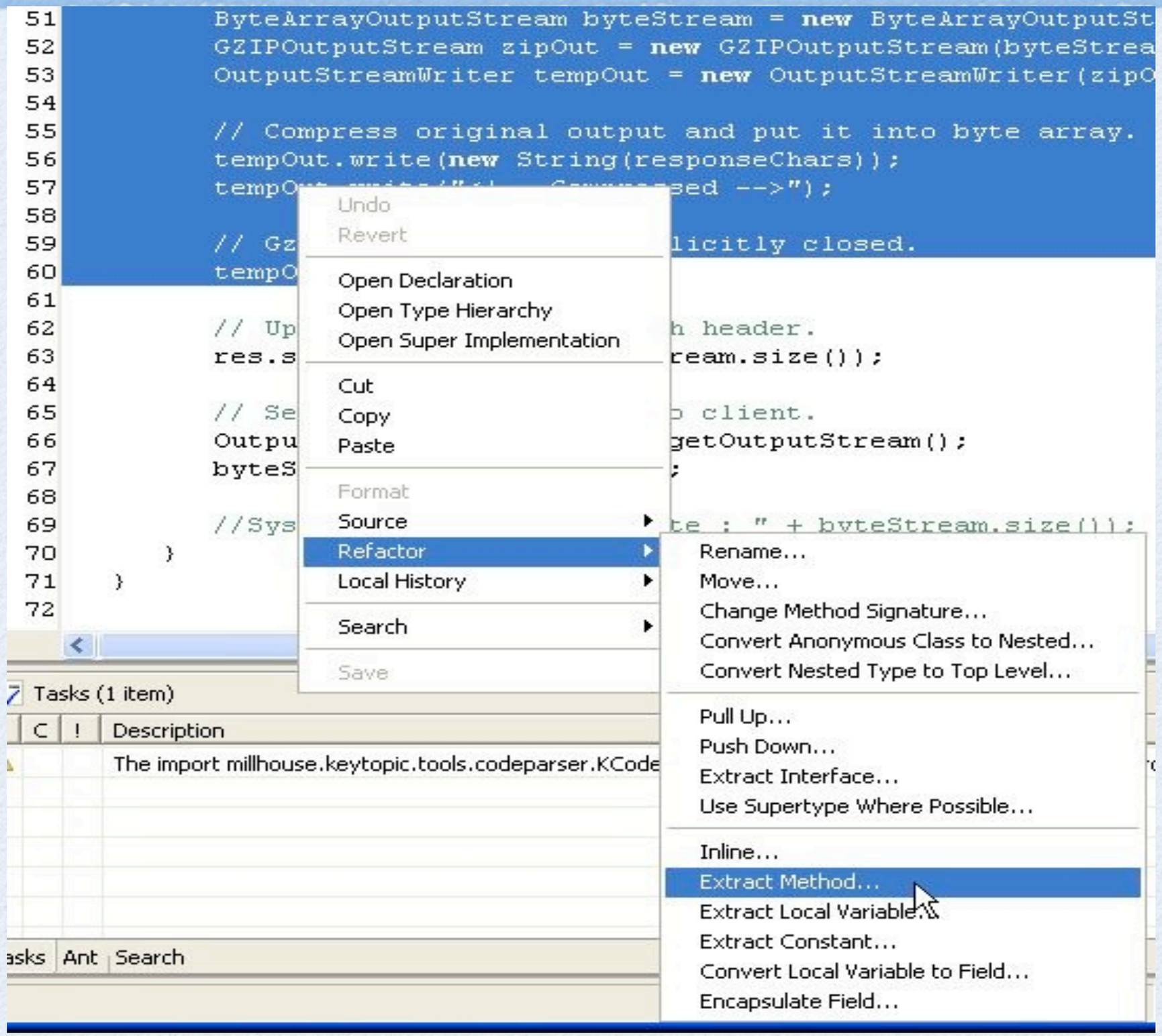
Refactoring

Refactoring *(noun): a change made to the internal structure of software to make it easier to understand and cheaper to modify without changing its observable behaviour.*

(Martin Fowler, Refactoring p53)



Extract Method



Extract Method

- Create a new method, name by intention
- Copy extracted code from source method to new target method
- Scan for local variables.
- Temporary variables local to method?
- Local-scope variables modified? Return changes back to parent method.
- Pass local-scope variables as parameters.
- Compile.
- Replace extracted code in source method with call to target method.
- Compile and test.

Take small steps

- Stay close to green
- Follow refactoring steps
- One small change at a time
- Don’t rewrite it from scratch

flickr user San Diego Shooter

Lean on the Tests

flickr user ell brown

- For this kata - the tests are pretty comprehensive
- Run tests often!

Cyberdojos

http://cyber-dojo.com

- Python - 328D36
- Ruby - 9800B7
- Java - 21BC8B
- C++ - C05A79
- C# - 5F612E

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