

Deliberate Practice

(Kata – Dojo – Code Retreat)

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Peter Kofler

- Ph.D. (Appl. Math.)
- Professional Software Developer for 15 years
- “fanatic about code quality”
- I help development teams

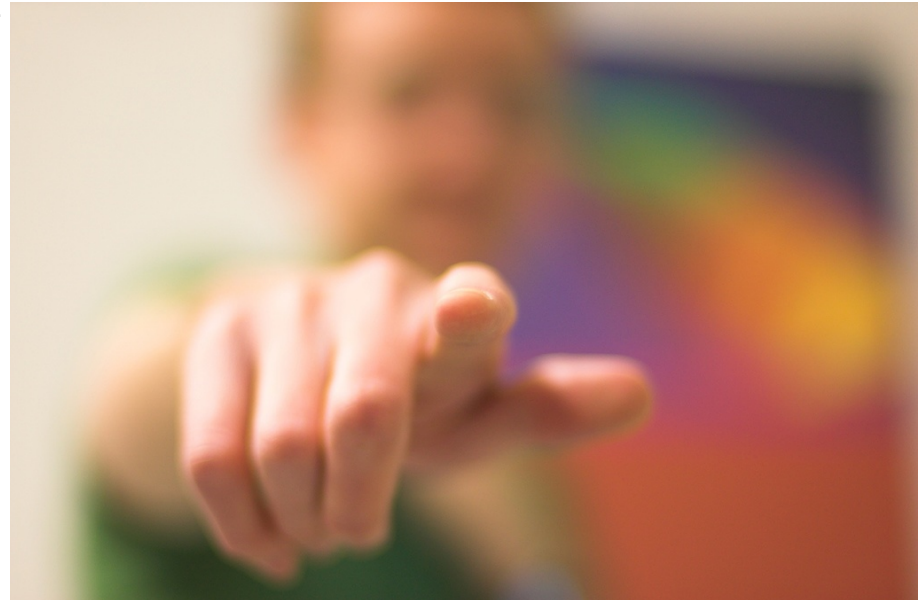


Mastery



How to achieve „Mastery“?

- ... or at least some kind of professional competence?
- ... or at least getting faster in day to day work?
- ... or not making the same mistake again and again?



Training on the Job?



Training on the Job

- Yes, you learn and get experience
- But
 - only what is already there
 - time pressure
 - Trial & Error not popular in production
 - no practice - only production
- Is “Training on the Job” sufficient?

Continuous Improvement

- More experience is not enough
- Mindset of Continuous Improvement
- Continuous Learning
 - Learn how to do it right
- Practice
 - Be fluent to be fast

Deliberate Practice

How do musicians practice?



Then how do coders practice?

```
34 No I will  
35 ("fix", "your", "comput  
36 => $for_free;  
37  
38  
39  
40  
41 }
```

Code Kata



Code Kata Definition

- A kata as a detailed choreographed pattern of movement.
- A code kata is an exercise in programming which helps a programmer hone their skills through practice and repetition.

Code Kata

- simple problem (max. 20 minutes)
- solve every day
 - memorization
 - create reflexes
- experiment with solutions
 - stretch yourself

Why repeat the same kata?

- de-emphasise the generation of code
- concentrate on
 - the process of writing the code
 - naming test cases
 - the Red/Green cycle

Don't Focus on
Getting it Done.
Focus on Doing
It Perfectly.

Code Kata Examples

- Simple Algorithms
 - Prime Factors, Roman Numerals, ..
- Bringing Code under Test
- Refactoring Katas
- Legacy Code Katas
- Application Katas
- Architectural Katas

Coding Dojo



Coding Dojo Definition

- A coding dojo is a meeting where a bunch of coders get together and work on a code kata, a programming challenge to improve their skills.
- They code, learn and have fun away from interruptions, distractions, deadlines and production bugs.

Coding Dojo Structure

- Introduction 15'
- Coding 45'
- Interim (Retrospective) 15'
- Break 15'
- Coding 45'
- Retrospective 15'

Coding Dojo Mindset

- Safe place outside work
- We are here to learn
- Need to slow down
- Focus on doing it right
- Collaborative Game

Constraints

- Challenges during a dojo or coderetreat.
- Moving to the extreme is a way of learning
- Examples
 - Missing Tool (No Mouse, ...)
 - Missing Feature (No IFs, ...)

Coding Dojo Vienna

- Biweekly Coding Dojo in Vienna
 - Every other Wednesday 6PM
- Changing locations
- Follow #CodingDojoVie

Come Join Us!



Code Retreat

Code Retreat

- A day-long, intensive practice event, focusing on the fundamentals of software development and design.
 - Whole Saturday (8h)
- Practising the basic principles of modular and object-oriented design.
- Support Mindset of Quality, Learning and Practice!

Code Retreat Structure

- Introduction 15'
- 3 Sessions
 - Coding 45'
 - Retrospective/Break 15'
- Lunch
- 3 Sessions
- Retrospective 45'

Code Retreat Principles

- Learn through pairing (switch pairs)
- Practice
- Experiment
- Have fun!



Coderetreat

- honing the craft together

Coderetreat, <http://coderetreat.org/>

Why delete the code?

- No. Listen.
- Stop trying to go faster, start trying to go slower.
- Don't think about finishing, think about improving.
- Think about practising. As a team.
- That's what this day is for. Nothing else.

Global Day of Code Retreat

- A world-wide event celebrating passion and software craftsmanship.
- GDCR 2014: xth December (not official)
- Follow #GDCR14

Come Train with Us!

<http://globalday.coderetreat.org/>



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