

# **Coding Dojo: Fun with Tic-Tac-Toe**

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# Peter Kofler

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



Coding Dojo?  
Expectations?

# The Coding Dojo Mindset

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



# Rules



# Pair Programming

- Collaborative = Pair Programming
  - “Randori“ (pairing on the projector)
  - or regular programming in pairs
- regular Pair Programming
  - do not talk for too long
  - do not interrupt the other
  - no “keyboard hugging“

# Test Driven Development

- Test Driven Development
  - think about test cases
  - write the test first
- use TDD (or at least “sort of” TDD)
  - write a test before you write code
  - refactor mercilessly
  - no debugger

# ~~(Maybe Some)~~ Constraints

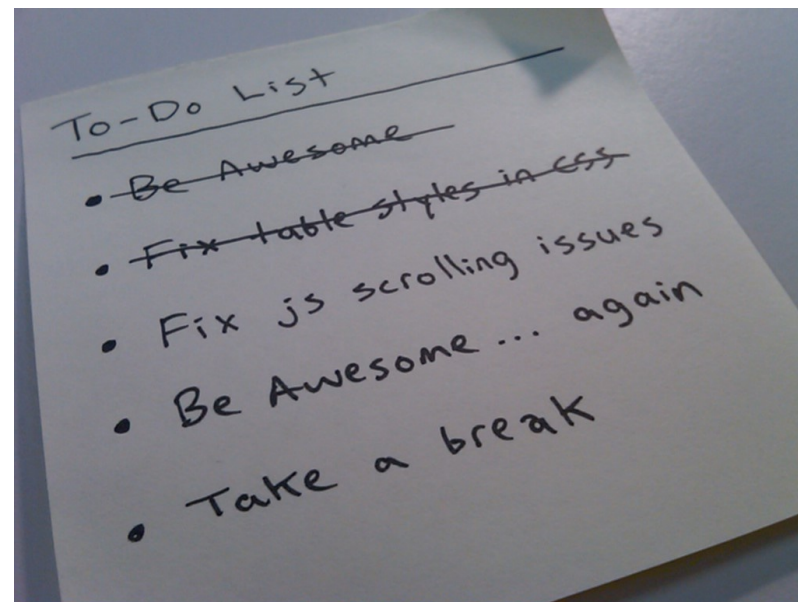
Today surely some fun

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



# Dojo Structure

- Introduction 10'
- Coding Fun 60'
- Interim (Retrospective) 15'
- Break 10'
- New Constraint
- Moar Coding Fun 60'
- Retrospective 15'



# Tic-Tac-Toe



# Assignment

- <http://en.wikipedia.org/wiki/Tic-tac-toe>
- Board 3x3
- X plays first, O plays second
- Implement
  - 2 Player Game
  - Determine Winner
  - AI Bot Player

# Constraint



# Write the worst code you can

- You know how to do that ;-)
  - e.g. wrong/no object orientation
  - e.g. wrong/no usage of types
  - e.g. wrong/no abstractions
  - e.g. too small/big units
  - <http://mindprod.com/jgloss/unmain.html>
- Have Fun!

# Prepare

- Find a pair.
- Choose a programming language.
- Set up the environment.
  - Create new project.
  - Add testing framework.
- Check Wikipedia for requirements.
- Implement Tic-Tac-Toe.

Don't Focus on  
Getting it Done.  
Focus on Doing  
It Horrible ;-)

→ Practice



# Short Retrospective

- How did it work out?
- How do you feel?
- What did you learn and want to share with the group?



# “Evil” Constraint



# Silent Evil Pairing

- Ping-pong (one person writes the tests, the other person writes the implementation code, then switch)
- Mute (nobody can talk) – optional
- Find the Loophole (the implementation person purposely writes the wrong algorithm that still makes the tests turn green. But they have to keep the code very clean all the while.)
- Have Fun!

# Prepare

- Find a new pair.
- Choose a programming language.
- Set up a fresh environment.
- Start over with Tic-Tac-Toe.

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

→ Practice

# Full Closing Circle

- What did you learn today?
- What surprised you today?
- What will you do differently in the future?



# Coding Dojo Vienna

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







# Peter Kofler



# @codecopkofler

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