

TDD – The Bowling Game Kata

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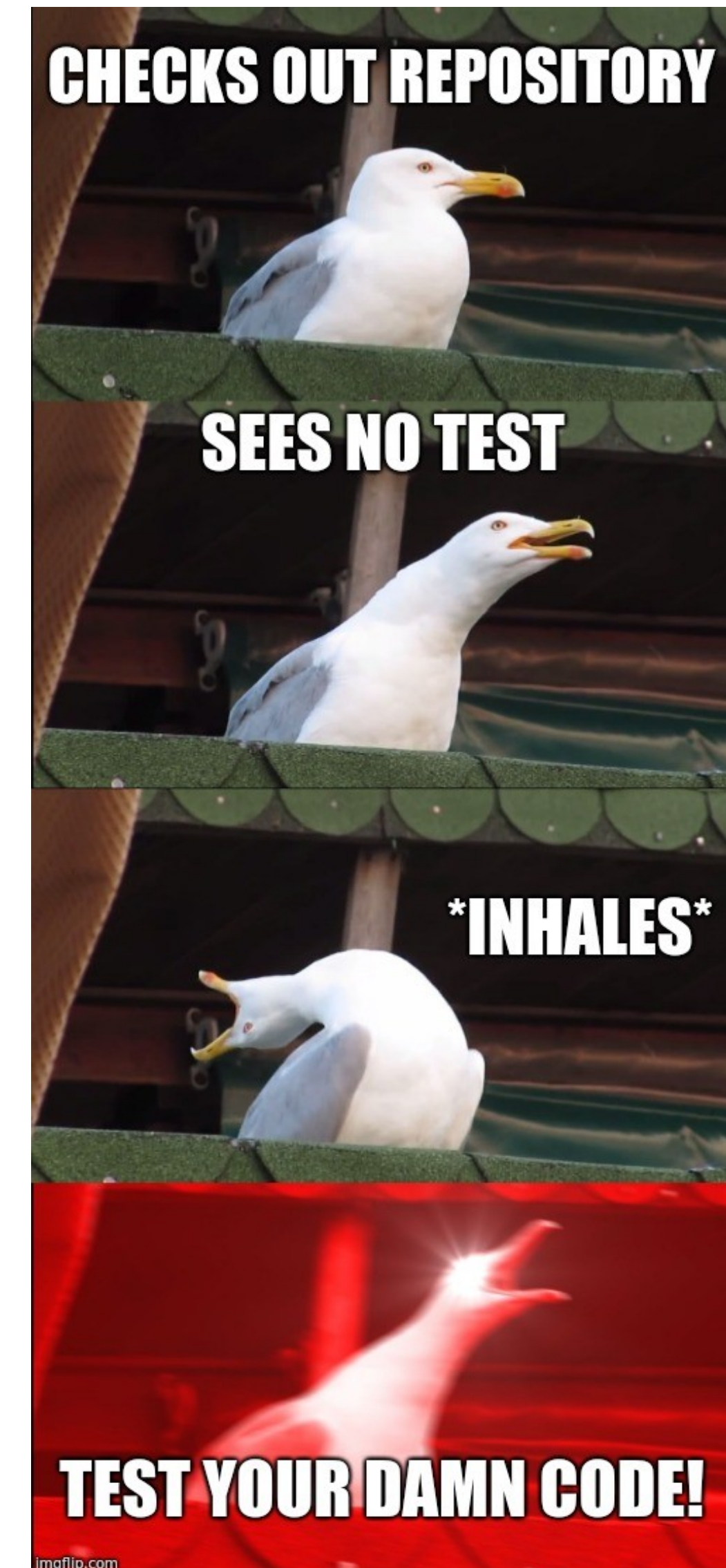
Agenda

- Introduction into TDD
- What is a coding kata?
- Hands-on – The Bowling Game Kata

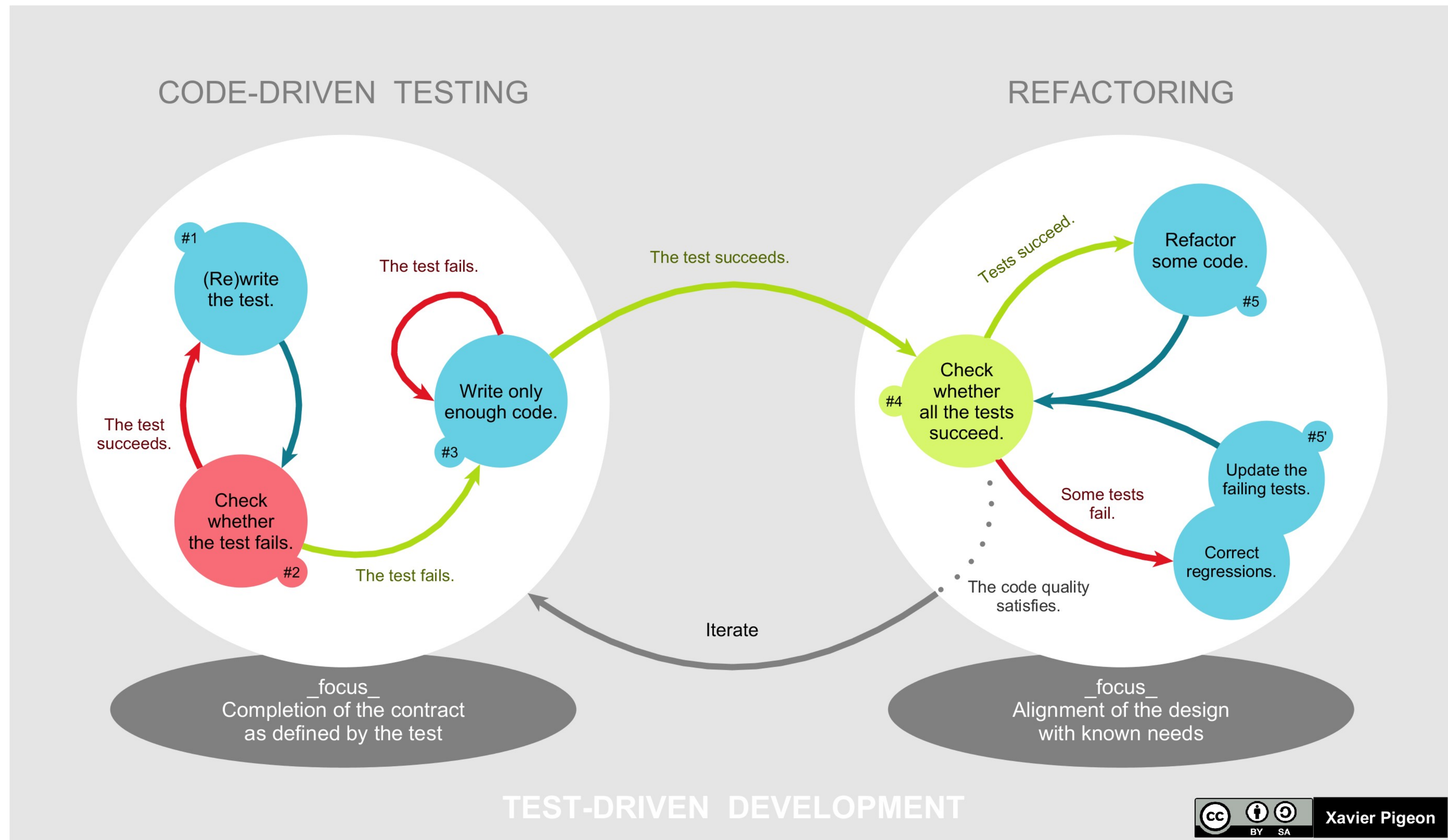


Introduction into TDD

- **T**est **D**riven **D**evelopment
- In other words: Write your tests first!
- A life cycle for software development
- Increases test coverage
- Increases code quality
- Ensures a minimal code base



Introduction into TDD

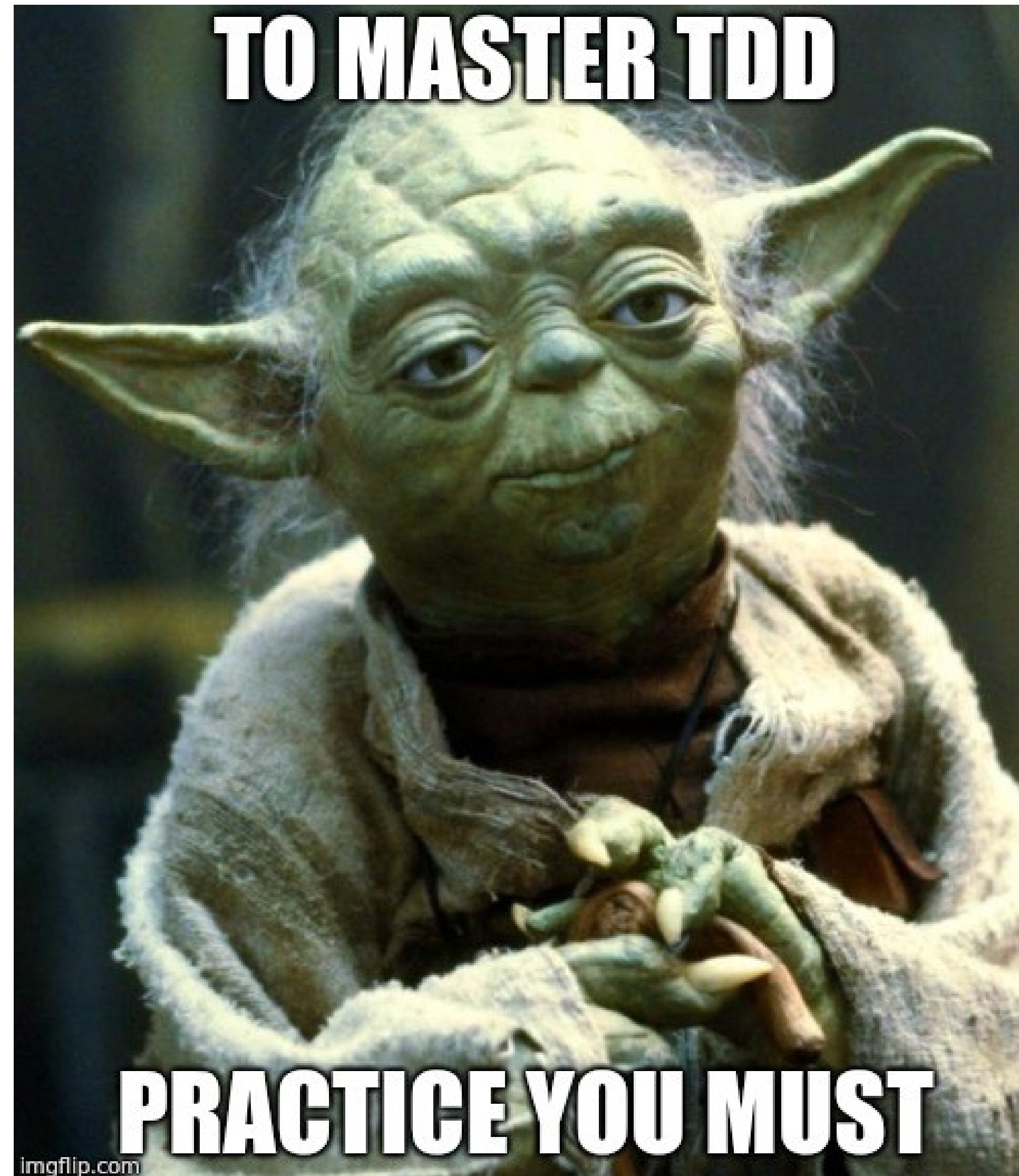


Introduction into TDD – Disclaimer

- TDD is just a tool, use it for the right jobs!
- TDD fixiates the software according to the requirements
- There are use cases where TDD makes no sense e.g.
 - Working on a proof of concept
 - Prototyping



Introduction into TDD – Most important



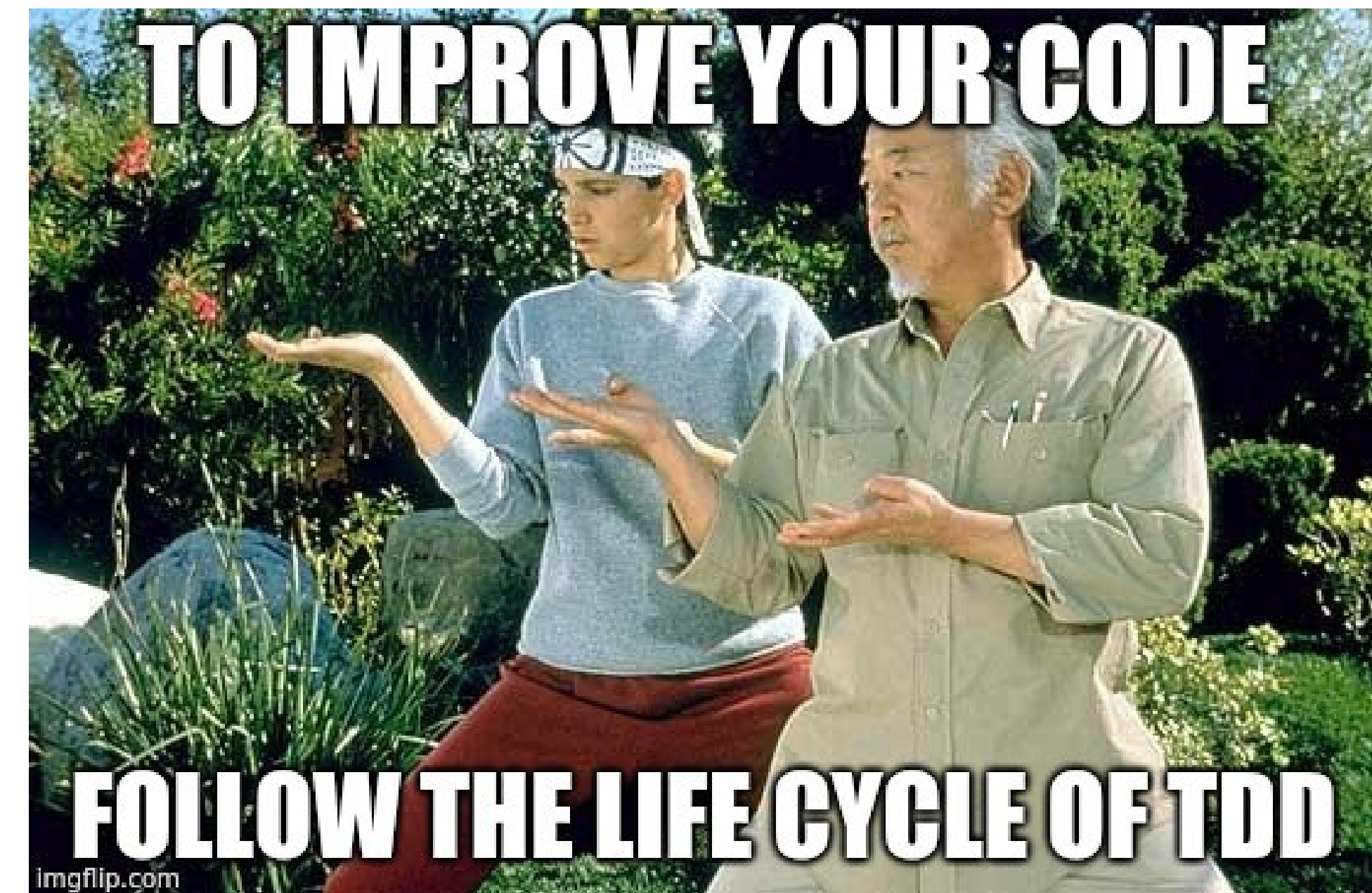
What is a coding kata?

- A “Kata” is a order of movements in the martial arts world
- Goal: memorization and perfection of movement
- Coding katas
 - Small coding exercise
 - Learning and experimenting
 - Improve your programming skills



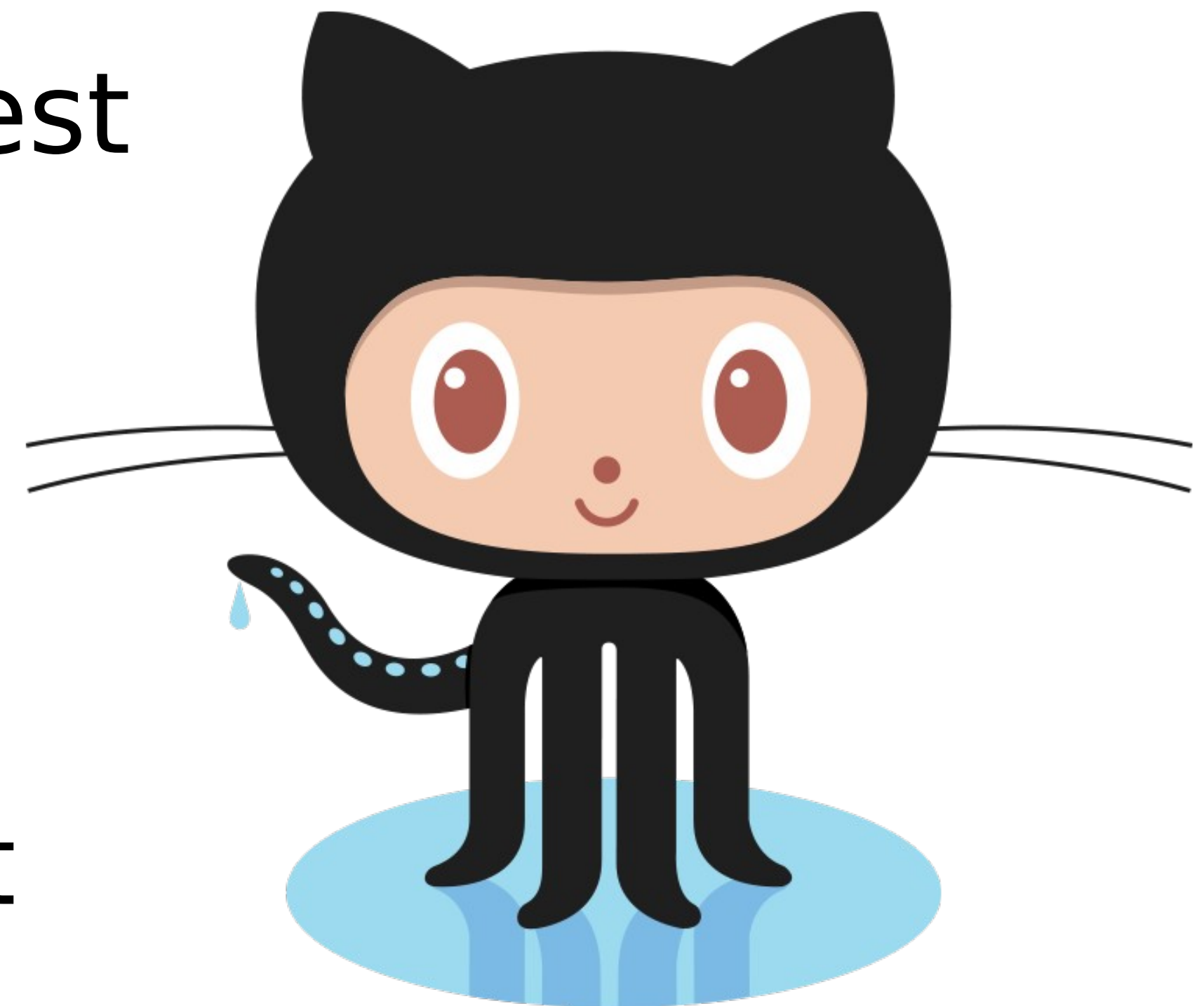
Hands-on – The Bowling Game Kata

- Based on Uncle Bobs "Bowling Game Kata"
- Implement a bowling game with TDD
- Goal: Practice TDD and experiment!
- It is not the goal to finish the Kata!
- Take your time!



Hands-on – The Bowling Game Kata – Boilerplate

- <https://github.com/svettwer/bowling-game-kata.git>
- Maven project + maven wrapper
- Contains test class and class under test
- Execute your tests
 - Via IDE
 - Via command line
 - On Linux: `./mvnw clean test`
 - On Windows: `.\mvnw.cmd clean test`



Hands-on – The Bowling Game Kata – Rules

- A Game consists of 10 frames.
- There are 10 pins per frame.
- A player has two tries per frame to knock down all pins.
- The score for the frame is the amount of pins plus Bonus.
- Spare: 10 pins down after two tries.
 - Bonus: Number of pins of the next roll.
- Strike: 10 pins down on first try.
 - Bonus: Number of pins of the next two rolls.
- Tenth Frame: Spare or Strike enable third roll.

1	4	4	5	6		5			0	1	7		6		2		6
5		14		29		49		60	61		77		97		117		133



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Thank you!

Icons

