

expo QA 24

MADRID
May 28th,
29th, 30th
2024

Gil Zilberfeld Clean Web Tests

expoqa.com

First things first

● **Download the project from:**

<http://link.testingil.com/clean-tests-pw>

● **In the directory:**

- `npm install`
- `npx playwright install`

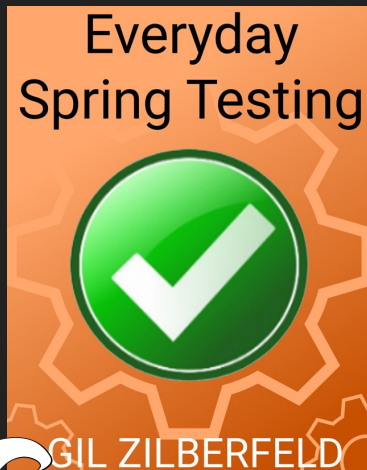
● **Download VS Code extension:**

- “Playwright Test for VSCode”



Hello!

I AM GIL ZILBERFELD



Gil@TestinGil.com

<http://www.testingil.com/>

[@gil_zilberfeld](https://twitter.com/gil_zilberfeld)



What is clean code?

“Clean code is

**simple and direct. It should
be written like prose”**

Grady Booch

“Clean code

**always looks like it was
written by someone who
cares.”**

Michael Feathers

“Any fool

**can write code that a computer
can understand. Good
programmers write code that
humans can understand.”**

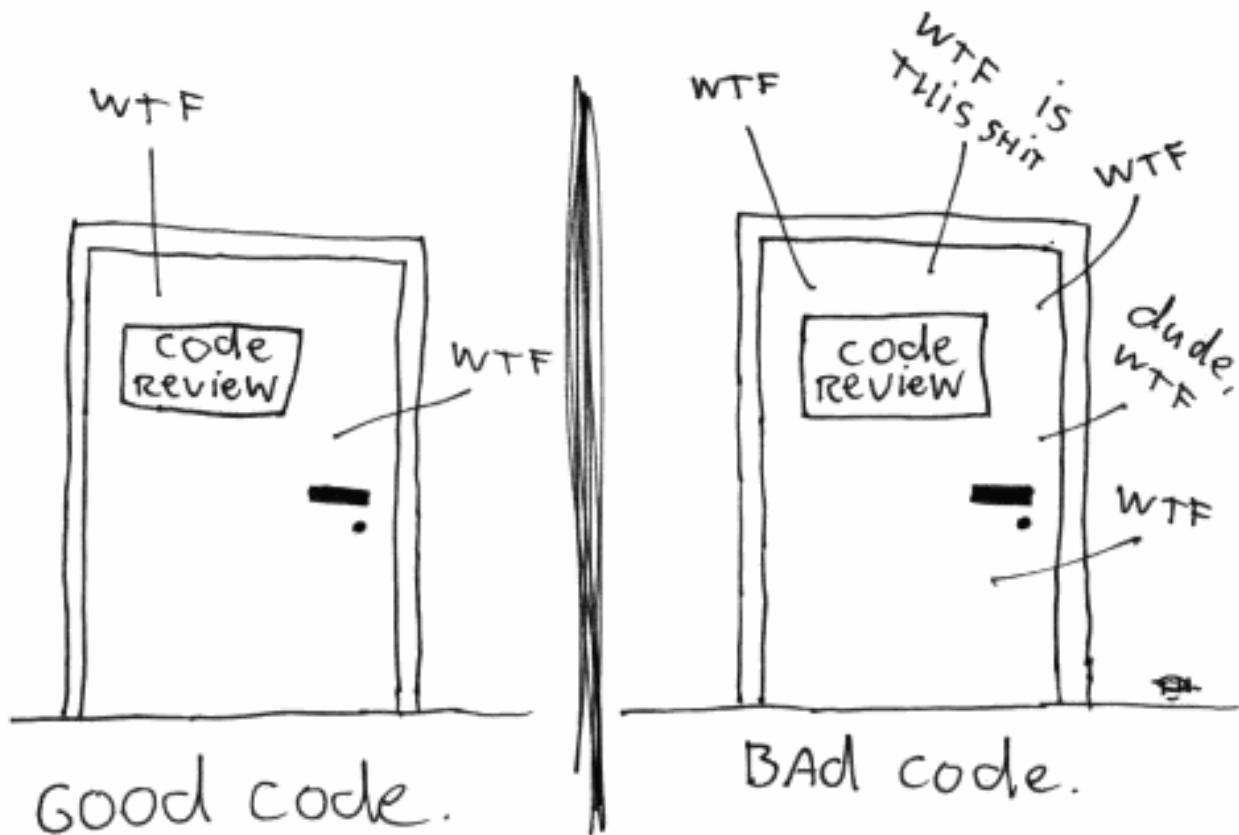
Martin Fowler



imgflip.com

IT'S ABOUT TIME

The ONLY VALID MEASUREMENT
OF CODE QUALITY: WTFs/MINUTE



(c) 2008 Focus Shift

4 of 5 developers enjoy
code review



CLEAN



ALL THE CODE!

imgflip.com

CLEAN



ALL THE TESTS!

imgflip.com

**TEST
CODE**



**PRODUCTION
CODE**

imgflip.com Kobal/REX/Shutterstock

Same, same but different

- **Tests are not “real” code**
- **Once a test passes, we move to the next one**
- **We don't go back to tests**
- **We don't apply the same standards**

What makes tests clean?

Clean tests

- **Show intent**
 - How to use the code
 - What is expected when it's used in a scenario
- **Focused and therefore have good names**
- **Do exactly what they say**
- **Tell the story of usage**
 - Abstract implementation details

A very quick intro to Playwright

Playwright

- **Published by Microsoft in 2020**
- **Based on Google's Puppeteer for browser automation**
- **Full test framework**
- **Supports most browsers**
- **Clients in popular languages**

Playwright

<http://localhost:3000/calculator>

Playwright

● Installation

- Automatically downloads the current drivers

● Update drivers

- `npx playwright install`

● The `playwright.config`

● Runs in headless mode by default

- `npx playwright test`

● Can run with UI:

- `npx playwright test --ui`

The exercise!

Registration App and tests

Step 1 – Organize

- **All the tests are in one place**
- **Organize them to make better sense**
- **Extract literals**
- **Make sure all the tests continue to pass**

Common Setup

Demo: do1

Step 2 - Remove duplication

- **The copy-paste is messing with understanding**
- **Remove duplication**
- **Use `test.beforeEach` for common setup**
- **Re-organize if needed**
- **Work in small steps**
- **Make sure all the tests continue to pass**

Splitting

Demo: do2

Step 3 – Split tests

- **Split the behavior test to smaller tests**
- **Use good names to differentiate cases**
- **Use `test.beforeEach` for common setup**
- **Re-organize if needed**
- **All tests should pass**

Renaming for clarity

Demo: do3

Step 4 - Names

- **Rename operations and expectations**
- **Use readable names**
- **All tests must pass**

The Page Object Model

POM

- **Encapsulating page elements from the tests**
- **Can represent full or partial pages**
- **Maintenance is easier**
- **Tests are more readable**

POM

Demo: do4

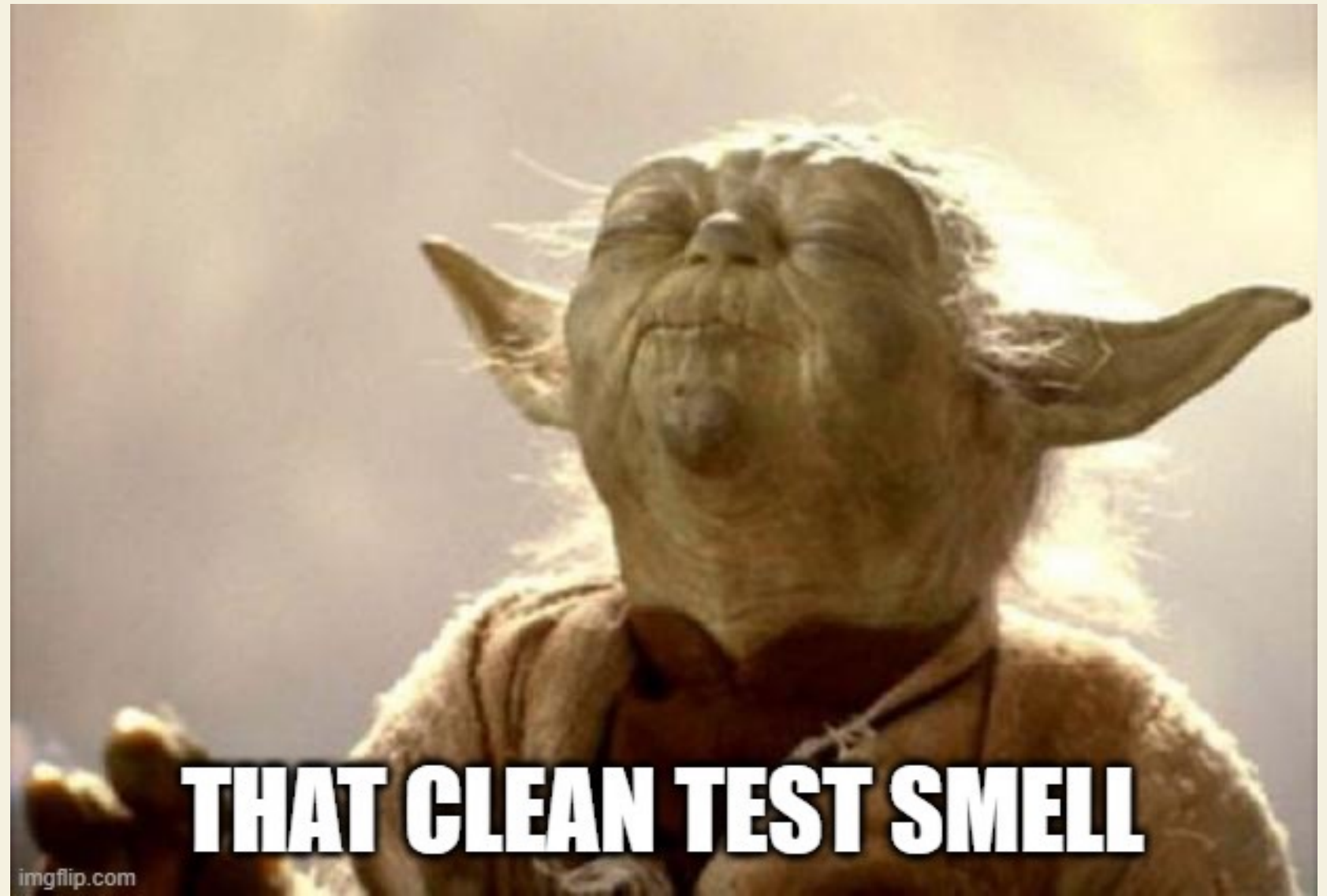
Step 5 - POM

- **Move code into page objects**
- **Update the tests to use the POMs**
- **All tests must pass**

But what does it all mean?

Step 6: Tell the story

- **Rename functions and methods to tell the story of registration**
- **Use domain words “agree” and “submit”, instead of “click” “textbox” and “verify”**



THAT CLEAN TEST SMELL



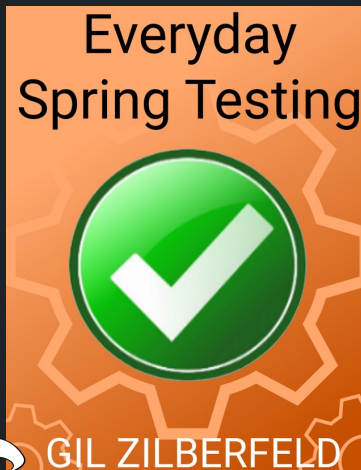
Test
code

Production
code

Corporate needs you to find the differences
between this picture and this picture.



They're the same picture.



Thanks!

ANY QUESTIONS?

You can find me at:

Email: Gil@TestinGil.com

LinkedIn: [Profile](#), [Company](#)

Youtube: <https://www.youtube.com/@testingil>

Twitter: [@gil_zilberfeld](#)

<http://www.testingil.com>



expo QPA 24

MADRID
May 28th,
29th, 30th
2024

Thank you for attending

expoqa.com