

Clean Cucumber Stefan Rohe

Clean Code Days 21.06.2018

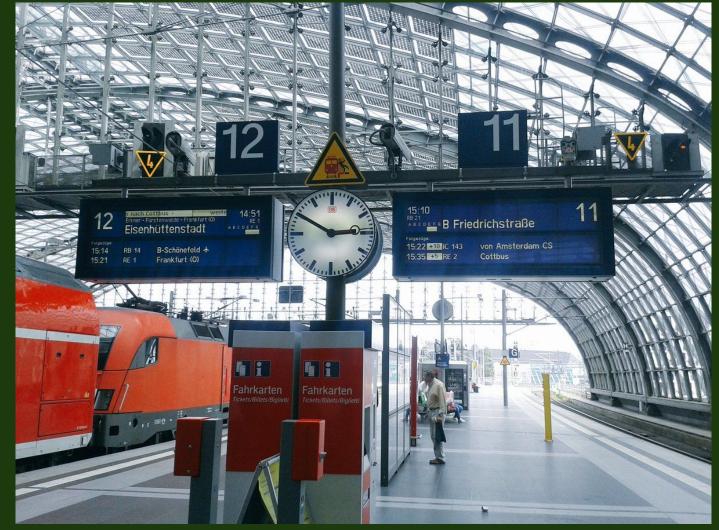
Funkwerk

Passenger Information

Country wide

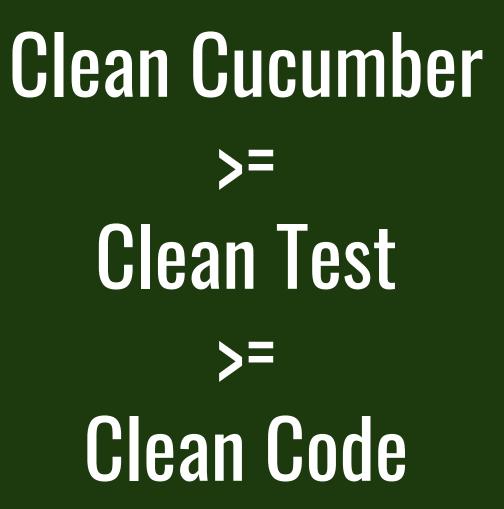
Customized

High Availability High Reliability



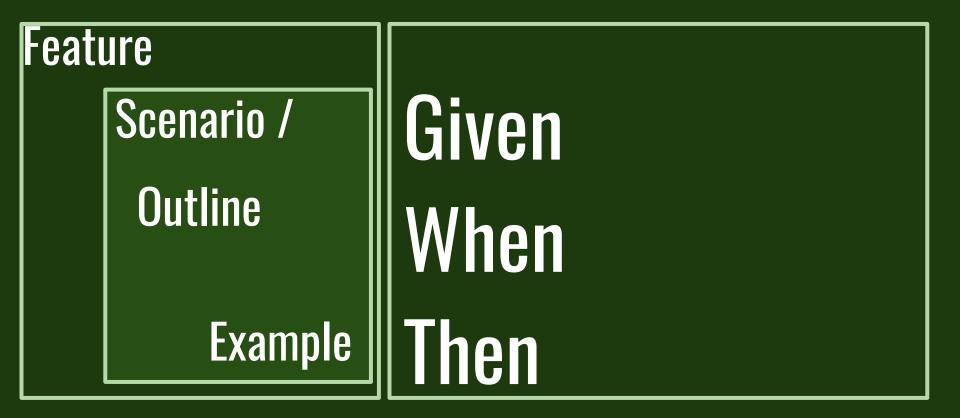
Clean Code

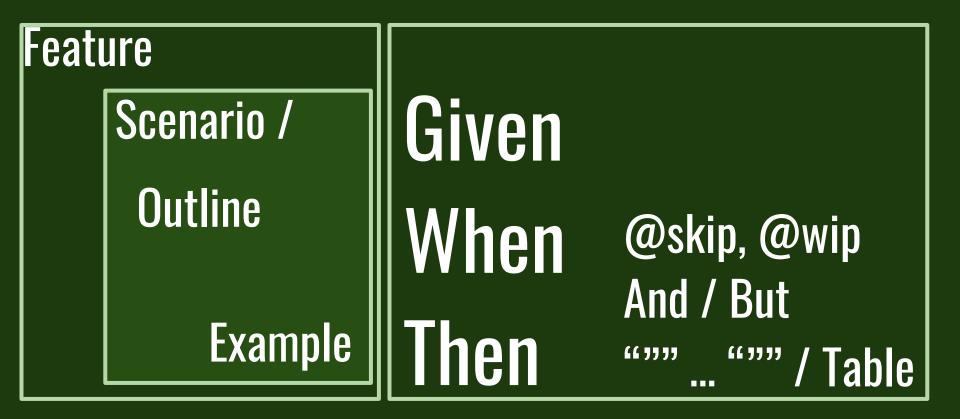
Clean Test >= **Clean Code**



Given When

Then







Specification in the domain language of the stakeholder

Adoption process

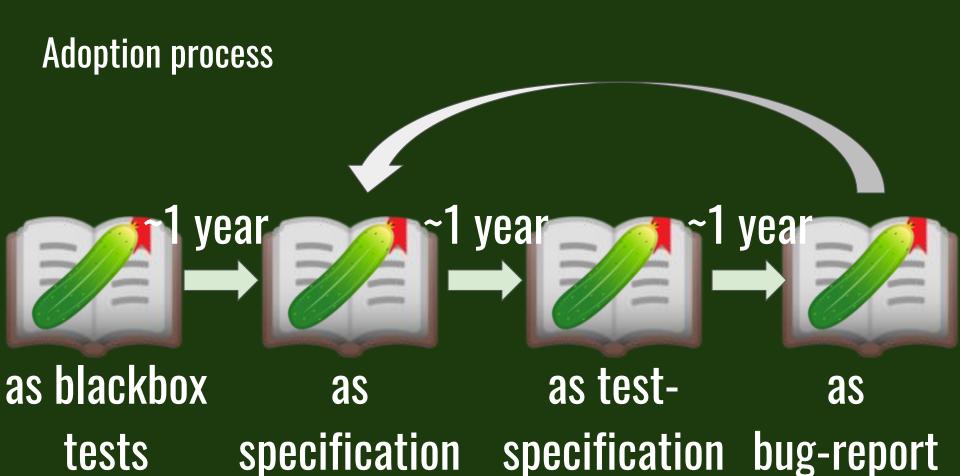


as blackbox tests

specification

as

as testspecification



History Tools mixed with some Guidelines



In General

All Clean Code guidelines apply as well to Cucumber

e.g.:

- Good names
- Concise
- DRY
- KISS
- ...



Simple Example

Feature: Announcements

Scenario: Journey Arrival

Given a journey is scheduled

When it arrives

Then I hear an arrival announcement

Guideline: Use Narratives

in order to understand decisions it is important to know

who wants what and why

As a		
l want to		
in order to		



Simple Example with Narrative

Feature: Announcements

As a passenger,

I want to hear arrival announcements,

in order to know where to go after departing the train.

Scenario: Journey Arrival

Given a journey is scheduled

Version specification and code in same repository



usually:

/src contains source code

/features contains specification

Product Owner / Stakeholder usually do not use Source Code Version Control Systems

Simple Example with Narrative and link to User Story

Feature: Announcements

As a passenger, I want to hear arrival announcements, so that I know where to go after departing the train.

@DEFAS-123

Scenario: Journey Arrival

Given a journey is scheduled

When it arrives

Then I hear an arrival announcement

Involve Stakeholders

- be as transparent as possible
- ease access to specification
- use specification wherever possible





gherkin_format

Formats feature files using custom templates

- convert to markdown for usage in github/gitlab, confluence/wiki, jira, ...
- extract tags
- word/html5/...
- test reports

implemented in ruby.

available as gem package or as docker image.



gherkin_format - application



Multiple Scenarios

Feature: Announcements

Scenario: Journey Arrival

Given a journey is scheduled

•••

Scenario: Journey Delay

Given a journey is scheduled

Use Background

Do not repeat Given steps in Scenarios, use an background instead.



Multiple Scenarios

Feature: Announcements

Background: Setup

Given a journey is scheduled

Scenario: Journey Arrival

Scenario: Journey Delay

.....



gherkin_lint

Tool to check Feature Files for static issues

- invalid step flow
- avoid scripting
- too long
- ~31 Guidelines implemented



Spellings happen

Feature: Announcements

Scenario: Joureny Arrival

Given a journey is scheduled

When it arrives

Then I hear an arrival announcement



gherkin_language

Tool to check for spelling and grammar issues

Specific for feature files. (Multiple Sentences starting with "Given" are good in Cucumber)

Allows usage of a glossary



Write steps as a subject-predicate action phrase

Use "Given" like the German "Angenommen" and not like the German "Gegeben sel".

Bad: Given a journey

Good: Given a journey has been scheduled



Trend towards longer and longer specifications

Feature: Announcements

Scenario: Journey Arrival

Given a daily journey from Berlin to Munich over Frankfurt at 10:00 o'clock is scheduled

When it arrives

Then I hear an arrival announcement

Be Concise



In order to be read, write as concise as possible.

Flesch Reading Ease Readability Formula (from http://www.readabilityformulas.com)

Readability Ease = 206.835 - (1.015 * Average Sentence Length) - (84.6 * Average number of Syllables)

Scores between 90.0 and 100.0 are considered easily understandable by an average 5th grader.

Scores between 60.0 and 70.0 are considered easily understood by 8th and 9th graders.

Scores between 0.0 and 30.0 are considered easily understood by college graduates.

gherkin_readability

Tool to check Feature Files for static issues

- invalid step flow
- avoid scripting
- too long











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gherkin format

gherkin lint

gherkin language gherkin readability



Guidelines Three Bonus Guidelines

talk to the stakeholders

Involve stakeholders in discussions as early as possible

use domain language

establish Three-Amigo-workshops



be declarative

Given I open <u>http://www.db.de</u>

And I enter 4711 in the search field

When I press the search button

Then I see it is operating on 01.04.2018

VS.

When I search train 4711

Then I see it is operating every monday

focuses on business requirements and implementation details





use established placeholders

trains 101, 102, ...

stations A, B, C

Avoid metasyntactic variable names "foo", "bar", "baz", ...



