Clean Cucumber

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Clean Code Days 21.06.2018

Funkwerk

Passenger Information

Country wide

Customized

High Availability

High Reliability

Clean Code

Clean Test

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Clean Code

Clean Cucumber

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Clean Test

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Clean Code

What is Cucumber?

Given

When

Then

What is Cucumber?

Feature

Scenario / Outline

Example

Given

When

Then

What is Cucumber?

Feature

Scenario / Outline

Example

Given

When

Then

@skip, @wip

And / But

“”” … “”” / Table

What is Cucumber?

~~Tests~~

Specification in the domain language of the stakeholder

Adoption process

Adoption process

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 ...

I 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

github.com/funkwerk/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

git

Jira

Confluence

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

github.com/funkwerk/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

github.com/funkwerk/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 sei”.

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

github.com/funkwerk/gherkin_readability/

Tool to check Feature Files for static issues

- invalid step flow
- avoid scripting
- too long

GitHub

github.com/funkwerk/gherkin_*/

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 http://www.db.de

And I enter 4711 in the search field

When I press the search button

Then I see it is operating on 01.04.2018

focuses on business requirements and implementation details

vs.

When I search train 4711

Then I see it is operating every monday

focuses on business requirements

use established placeholders

trains 101, 102, …

stations A, B, C

Avoid metasyntactic variable names “foo”, “bar”, “baz”, …

Clean Cucumber

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Clean Test

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Clean Code