SmartLunch: Automating acceptance tests

... and burning Word documents thanks to Cucumber

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What is Cucumber?

Plain English Test language

Describe all tests using 7 simple sentences

Readable by everybody -- business resources too :)

Can replace most word docs previously used for testing

Has rapidly gained momentum among developers

Feature: <name>
  In order to <purpose>
  As a <role>
  I want to <feature benefits>

Scenario: <name>
  Given <preconditions>
  When <action>
  Then <outcome>

Example: virk.dk testcase

```
Feature: Overview of the virk portal
  In order to verify that pages work before and after an
upgrade
  As a responsible project administrator
  I want to see that the most important features are running

  Scenario: frontpage
    When I go to the homepage
    Then I should see "Forside"
    And I should see "Log ind med digital signatur"


1 scenario (1 passed)
3 steps (3 passed)
0m0.357s
```

Run the command: cucumber --no-source features/overblik.feature:6

Word documents

Virk.dk test specs written in word. Examples:

Gå til portalens forside.	Et af hovedet elementerne, i toppen af forsiden er en søgeboks.
Skriv ordet *start* i søgeboksen og tryk enter.	Flere sider med søge resultater vises.
Zero søgning Søg efter ordet sommerlandskab	Ingen søgeresultater fundet.
Zero søgning Søg efter ordet Afdelingsarkitekt	Ingen søgeresultater fundet.
Zero søgning Søg efter ordet skumgummiged	Ingen søgeresultater fundet.
Zero søgning Søg efter ordet Marilia	Ingen søgeresultater fundet.

Example: virk.dk testcase

```
Feature: Search (testcase 005)
  In order to find documents and indberetninger
  As an ordinary employee
  I want a big search field that helps and guides me...

  Scenario: Frontpage must have search field
    When I go to the homepage
    Then I should see the search box

  Scenario: 001 Search for popular word
    Given I search for "start" in all content
    Then I should see thousands of results
```

Run the command: cucumber --no-source features/search.feature:6:10:14

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Example: virk.dk testcase

```
Scenario Outline: 002-006 Zero result search
    Given I search for "<word>" in all content
    Then I should see something like "Din søgning på '<word>
gav 0 resultater"

    Examples:
        | word               |
        | sommerlandskab     |
        | Afdelingsarkitekt  |
        | skumgummiged       |
        | Marilia            |


6 scenarios (6 passed)
12 steps (12 passed)
0m6.408s
```

Run the command: cucumber --no-source features/search.feature:6:10:14

Technical setup of frameworks:

Ruby (or JRuby)

Cucumber (the test language)

Webrat (predefined step definitions)

Mechanize (for http access to webpages)

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Getting started

1. Install JRuby: http://www.jruby.org/getting-started

2. Install Cucumber and related packages with command:

```
jruby -S gem install cucumber webrat mechanize
```

(there is no step 3)

Predefined steps for web applications

#predefined web_steps file:
Given I am on <page name>
Given I go to <page name>
When I follow <link text>
When I follow <link text> within <
When I fill in <field> with <conte
When I fill in <content> for <field
When I fill in the following <value
When I select <value> from <fie
When I check <checkbox>
When I uncheck <checkbox>
When I choose <field>
When I attach the file at <path>
Then I should see <content>
Then I should see <content> wit
Then I should not see <content>
Then I shold not see <content>
Then the <named> field should
Then the <named> field not sho
Then the <named> checkbox sh
Then the <named> checkbox sh
Then I should be on <page name
Then show me the page

Given I am on <page name>

When I follow <link text>

When I follow <link text> within <element>

When I fill in <field> with <content>

When I select <value> from <field>

Then I should see <content>

Then I shold not see <content> within <element>

Then the <named> field should contain <content>

Then I should be on <page name>

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Example from Internal CTE project

Cucumber tests added for describing requirements

Example: workflow descriptions

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Cucumber PDF generation

- PDF files can generate requirements specs:

```
cucumber --profile pdf --out test_result.pdf
```

(picks up logo from features/support/logo.png)

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Benefits using Cucumber
as automated test framework

- Avoid too much manual acceptance testing

- Release more often: testing work before release goes

down

- Refactor complex code to be simpler

- Avoid discussions on delivery quality

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Value for clients

- Applications
- Release control
- Status reports
- Requirements specs
- Test specs

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Our work for clients

- Virk.dk (Erhvervs- og Selskabsstyrelsen)
- Thompson Reuters
- Letpension
- Industriens pension

More info

www.cukes.info