
BDD – Behavior Driven Development with Behat/Mink



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Case Study

“Simple” order form

Ich habe bereits ein Kunden-Konto.

E-Mail-Adresse

Passwort

[Passwort vergessen](#)

Ich habe noch kein Kunden-Konto.

E-Mail-Adresse: *
Bitte geben Sie Ihre richtige E-Mail-Adresse an. Wir versenden eine Bestätigungsmail an diese Adresse nach der Registrierung.

Passwort: *
Passwort wiederholen: *
Bitte bestätigen Sie Ihr Passwort.

Passwort-Stärke:
Wählen Sie am besten ein Passwort, dass aus Buchstaben, Ziffern und Sonderzeichen besteht.

Rechnungsanschrift

Firma:
Der Firmenname darf maximal 29 Zeichen lang sein.

Anrede: *

Titel:

Vorname: *

Nachname: *

Straße & Hausnr.: *

PLZ und Ort: *

3 + 2 = *
Bitte bestätigen Sie, dass Sie keine Maschine sind, indem Sie die Rechenaufgabe lösen. [Nähere Informationen](#).

Mit * gekennzeichnete Felder sind Pflichtfelder.

Related functional tests (Selenium)

The screenshot shows the Selenium IDE 2.0.0 interface. The title bar reads "PreparationGenerateAndStoreDataInSelenium.html - Selenium IDE 2.0.0 *". The menu bar includes "Datei (F)", "Bearbeiten", "Actions", "Options", and "Hilfe". The "Base URL" is set to "http://test.dev/". Below the menu bar is a toolbar with buttons for "Fast", "Slow", and various test actions.

The "Test Case" pane on the left lists the following test cases:

- Preparation: Generate And Store Data In Sele...
- Preparation: Clear Browser Cookies (Mandatory)
- Can Login and Logout Directly On Test-SSO Server
- Can Validate E-Mail Directly On Test-App Server
- Can Validate Email With TYPO3 eID API
- Can Validate Email In Registration Form
- Can Login With Existing Account
- Can Logout
- Can Login With New Registered Account
- Can Login With Existing Account
- Can Verify Contact Personal Data of Existing Account
- Can Verify Contact Billing Address Of Existing Account
- Can Verify Contact Data Of New Registered Account
- Can Autologin After Registration Of New Contact
- Can Register New Contact Without Confirmation Step
- Can Register New Contact With Confirmation Step
- Can Register New Contact With Validation Errors
- Can Show Product List
- Can Show Product Grid
- Can Store Product From Grid In Basket
- Can Show Product Selector
- Can Store Product From Selector In Basket
- Can Show Basket With Selected Product
- Can Verify Basket Is Empty After Logout
- Can Verify Order Access
- Can Place Order With Invoice Payment
- Can Place Order With Debit Payment
- Can Place Order With Fixed Validation Errors
- Can Place Order With Changing Payment Method
- Can Download Protected File

The "Table" pane on the right displays a table with the following data:

Com...	Target	Value
store	javascript{Math.floor(10000000 + Math.random() * ...	randomEight
store	javascript{Math.floor(100 + Math.random() * 900)}	randomThree
store	\${randomEight}-typo3@mailinator.com	newEmail
store	\${randomEight}-Max	firstName
store	\${randomEight}-Mustermann	lastName
store	98765\${randomThree}	accountNumber
store	12345\${randomThree}	bankCode
echo	Generated AccountNumber: \${accountNumber}	
echo	Generated BankCode: \${bankCode}	
store	Max Mustermann	existingName
store	Max	existingFirstName
store	Muster GmbH	existingCompany
store	525c41ca-93d9-49a1-98ff-4ec56094e78e	existingContactId
store	Musterstadt	existingCity
store	Mustermann	existingLastName
store	XXXXXXXX	existingEmail
store	XXXXXXXX	existingPassword
store	XXXXXXXX	password
store	NOT_MATCHING	passwordWrong
store	Company	companyName
store	Mrs.	salutation
store	Title	title
store	Street	street
store	PostalCode	postalCode
store	Misspelled-Cietty	misspelledCity
store	MyCity	city

At the bottom of the interface, there are fields for "Command", "Target", and "Value", along with a "Find" button. The "Runs:" counter shows 0 and the "Failures:" counter shows 0.

How the complexity felt like



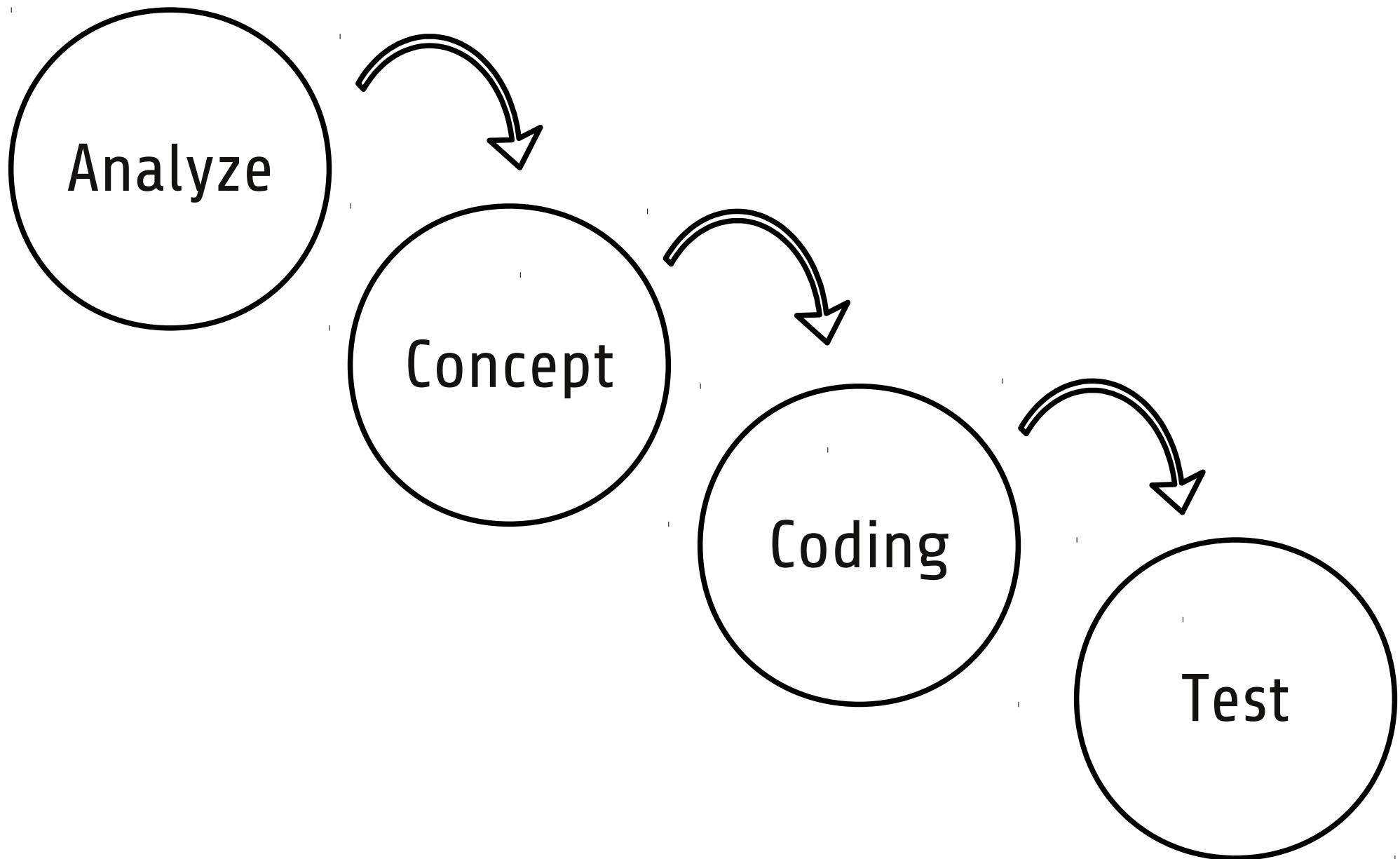
Image by Kyle Lease CC BY-SA 2.0 <http://www.flickr.com/photos/kl75214/>

Focus on requirements
instead of high coverage

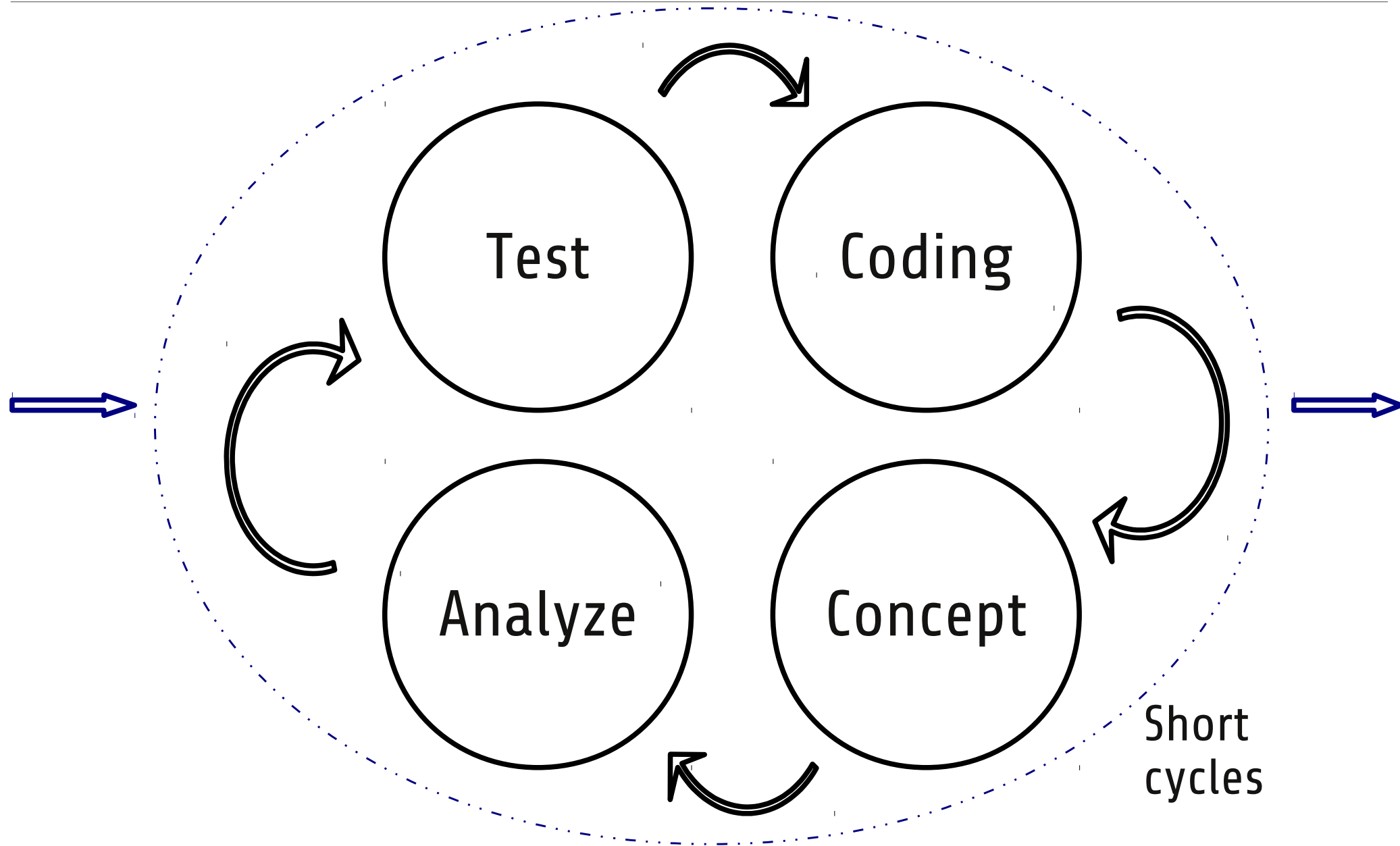
Behavior Driven Development

Behavior What?

Linear progress



Continuous Iteration



TDD or BDD?

TDD

Building the
things right

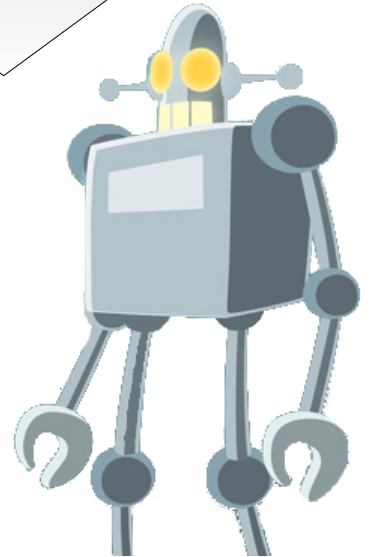
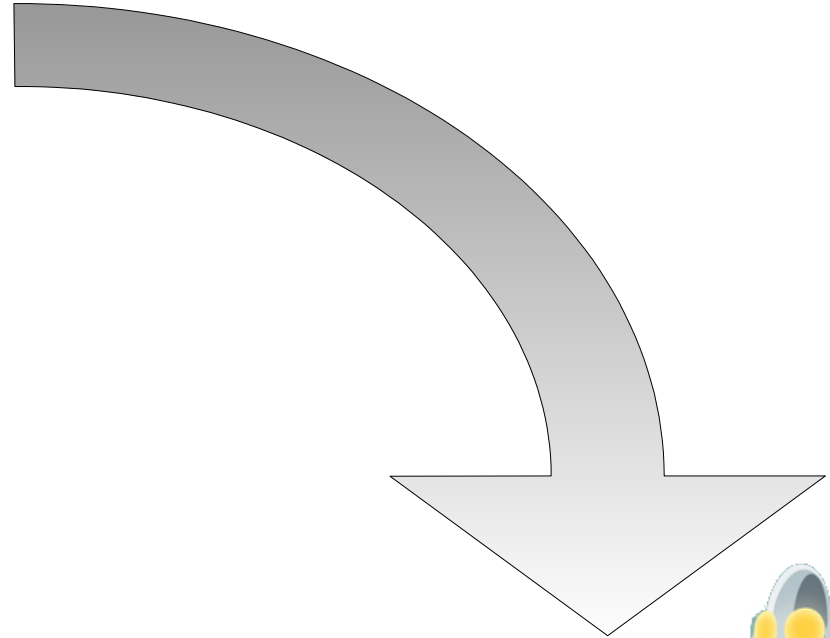
BDD

Building the
right things

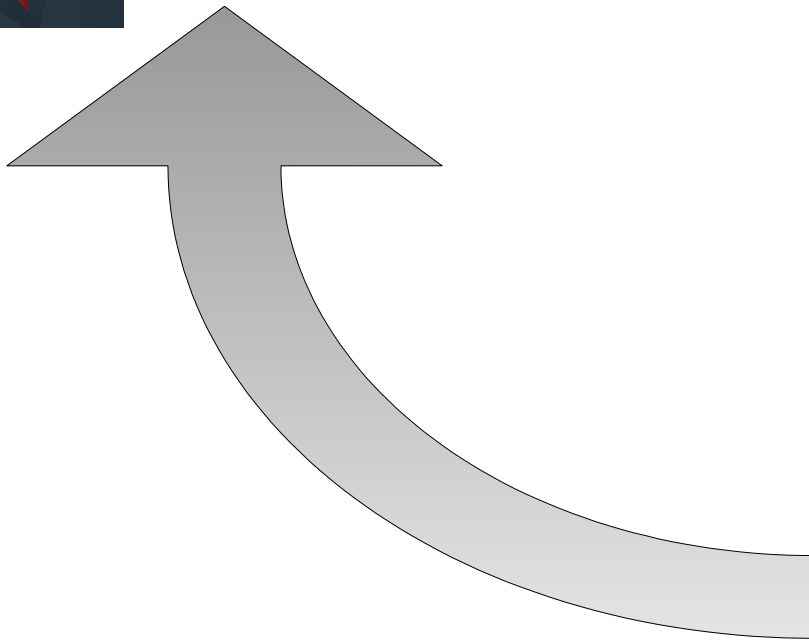
Communication



Stakeholder



Developer



Ubiquitous Language

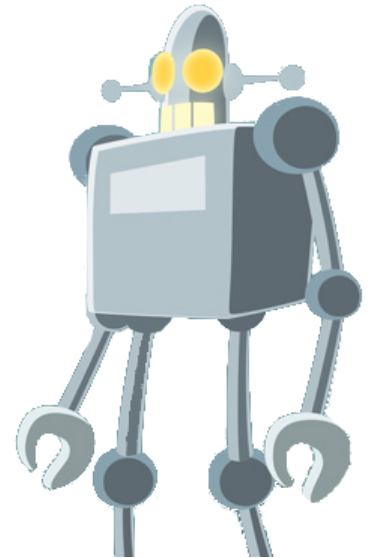


User

Customer

Unregistered
user

New customer



Feature Description

Feature Description

“As a [role]
I want [feature]
so that [benefit]”

Feature Description

User Story

“As a [role]
I want [feature]
so that [benefit]”

Example Feature Description

“As a **customer**

I need a **shopping cart**

to **check my selected products**”

Scenarios / Use cases

Scenario

Scenario: [Use Case]

Given... [Context]

When... [Event]

Then... [Result]

Example Scenario

Scenario: See selected products in the shopping cart

Given I visit the FooBar shop

And I add a “dishwasher” to my cart

When I go to the shopping cart

Then I should see a “dishwasher”

Example Scenario

Scenario: Find a product in the shopping basket

Given I visit the FooBar shop

And I select a "dishwasher"

When I go to the shopping basket

Then I should see a "dishwasher"

gherkin

- ✓ Clearly structured language
- ✓ Easy to understand
- ✓ Easy to rephrase
- ✓ Straightforward syntax
- ✓ Executable steps

Behat

A php framework for testing
business expectations



Behat

A php framework for testing
business expectations



Mink

Acceptance test framework
for web applications, written in PHP

Live Demo

Resources

BDD Introduction:

<http://dannorth.net/introducing-bdd/>

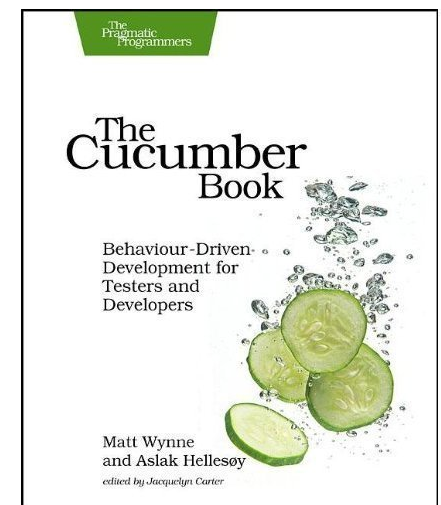
Behat/Mink:

<http://behat.org/>

bInit: kickstarter package for Behat:

<https://github.com/t3node/binit>

Wynne + Hellesøy (2012):
“The Cucumber Book”



Thank You!

If you need BDD + Behat/Mink support, send me a mail:

Steffen Müller <bdd@t3node.com>