

Agile Acceptance Testing with Fitnesse

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Agile Acceptance Testing with Fitnessse

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▶ Download material:

- On google code: <http://code.google.com/p/agileacceptancetesting/>

- Checkout in svn: <http://agileacceptancetesting.googlecode.com/svn/trunk>

Agile Acceptance Testing with Fitnesse

- ▶ *Introduction & Specification Workshop (25')*
- ▶ Setup Fitnesse (10')
- ▶ Iteration 1 (25')
- ▶ Iteration 2 (20')
- ▶ What's in it for you? (5')
- ▶ Retrospective (5')

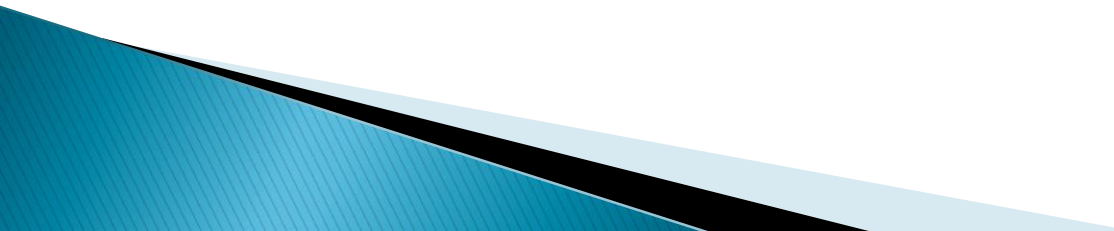


A wonderful opportunity

Mr W. Fall, CEO of BDUF Development:

“Our developers are working 14 hours a day to get our latest project delivered on time.”

“We need an application where they can order pizza’s, beverages, snacks,... as their evening dinner! So they can work longer!”



An agile Approach

- ▶ We agree with Mr W. Fall to make a very basic implementation and put it into production as soon as possible.
- ▶ A little sketch 😊

Manage Users & Credits

A Web Page

http://intranet.bduf.be

SNACKS-R-US

Account Information

Username

Password

☐ Remember me?



A Web Page

http://intranet.bduf.be/snacks/users

SNACKS-R-US

Welcome Nancy [Log Off](#)

You have €5 in your account

Manage Users & Credits

Name	Email	Credit
Nancy	Nancy.The.Secretary@bduf.com	€ 5 Add
Joe	Joe.Developer@bduf.com	€10 Add

[Create new User](#)

Order a snack & show orders

A Web Page

http://intranet.bdi

SNACKS-R-US Welcome Joe [Log Off](#)
You have €2.0 in your account

Order a new snack

Tiramisu (€ 4,5)

Current Orders

Qty	Snack	Unit	Total
1	Club Sandwich	€ 3.5	€3.5
1	Tiramisu	€ 4.5	€4.5

Total €8.0



A Web Page

http://intranet.bdi

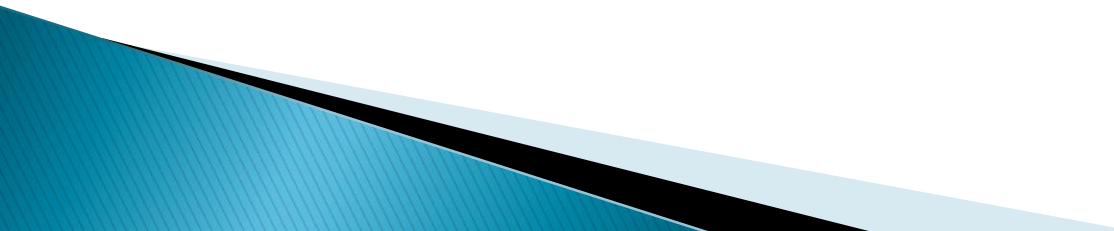
SNACKS-R-US Welcome Nancy [Log Off](#)
You have €5.0 in your account

Orders placed today

Qty	Snack	Unit	Total
1	Club Sandwich	€ 3.5	€3.5
1	Tiramisu	€ 4.5	€4.5

Total €8.0

An agile Approach

- ▶ We define a product backlog with estimated user stories for planning purposes.
 - ▶ We prioritize the product backlog together with Mr W. Fall.
 - ▶ An agreement is made to develop following user stories in the first iteration of 2 weeks:
- 

As a developer I want to order a snack because I need more energy to write code in the evening

Backlog Nr 3



Estimation

8

Business value

800

Check DoD

How to demo:

Order snacks as 'Joe' until he runs out of credits.
Then get the list of ordered snacks.

Acceptance criteria:

Developers who have enough credits can order a snack. The price of the snack is deducted from their credit. Credits can't be negative.



Estimation
3

Business value
400

Check DoD

As a secretary I want to manage the credits of our developers because they need credits to order snacks

How to demo:

Log in as 'Nancy', and add € 10 to Joe's account.


Acceptance criteria:

Developers can't manage their own credit. The saldo should always be correct when adding, deducting credits.

Specification Workshop (10')

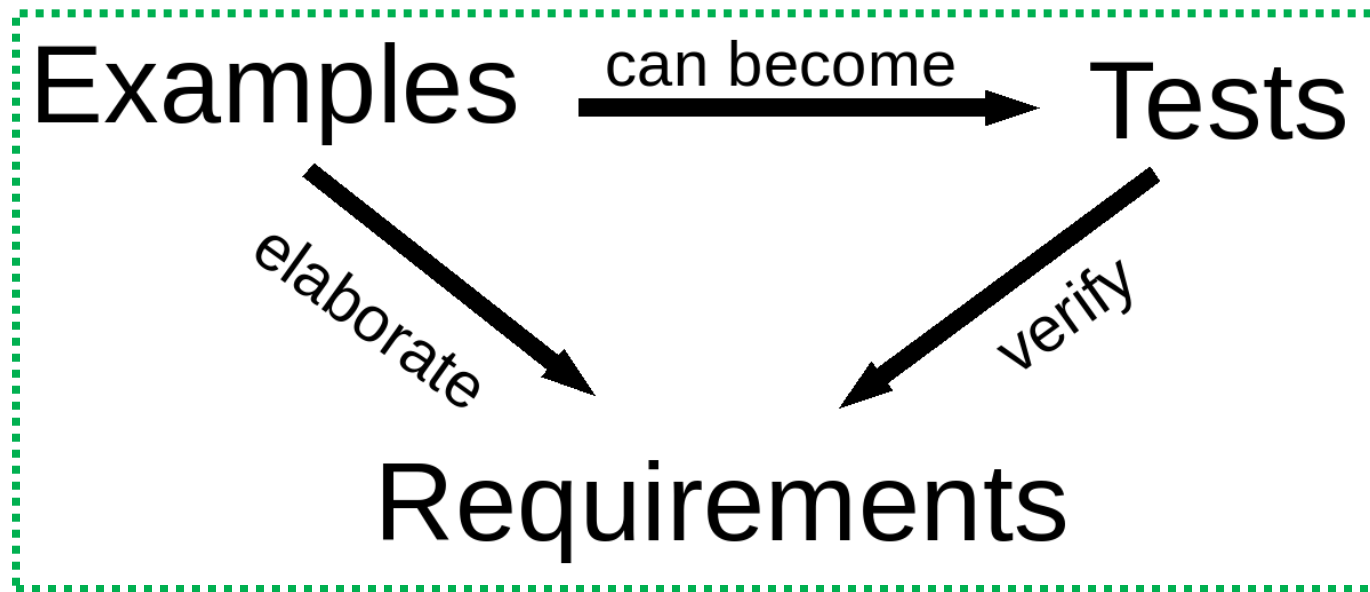
- ▶ Goal: Nail down the scope of the user stories with real world examples, which we all agree on.
- ▶ Workshop Outputs:
 - Enough realistic examples to start working
 - Shared understanding of the domain
- ▶ Some tips:
 - Involve the whole team
 - Don't over complicate things
 - Also identify edge cases and negative paths
 - Stay focused on the user story
 - Describe what, not how
 - Communicate intent, explain why

Did you notice?

- ▶ Realistic examples make us think harder
 - ▶ **Customers** or functional analysts typically think about the happy path
 - ▶ **Developers** focus on edge cases and alternative scenarios
 - ▶ **Testers** want to break / cheat the system
 - ▶ *So, Involve the whole team!*
- 

Executable specifications

- ▶ Scope of the user story is nailed down with real world examples



- ▶ Welcome FitNesse!

Agile Acceptance Testing with Fitnesse

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- ▶ What's in it for you? (5')
- ▶ Retrospective (5')





FitNesse Setup (1 / 3)

Getting the sources



- ▶ Latest version of FitNesse
 - <http://fitnesse.org/FitNesseDevelopment.Download>
 - Unzip into a directory of your choice (f.e. d:\Fitnesse)

- ▶ .Net 2.0 testrunner
 - <http://sourceforge.net/projects/fitnessedotnet/>
 - Unzip to d:\Fitnesse\Dotnet2

- ▶ Java Runtime Environment
 - <http://developers.sun.com/downloads/top.jsp>



FitNesse Setup (2/3)

Customize run.bat / stop.bat



- ▶ Customize port FitNesse is running on
- ▶ Location of java.exe
- ▶ Optional: disable versioning system

- ▶ run.bat:
 - jre\bin\java -jar fitness.jar %1 %2 %3 %4 %5 -p 8888 -e 0

- ▶ stop.bat:
 - jre\bin\java -cp fitness.jar fitness.Shutdown %1 %2 %3 %4 %5 -p 8888



FitNesse Setup (3 / 3)

Custmize Root page



▶ <http://localhost:888/?edit>

▶ !path classes
!path fitnessse.jar

!path dotnet2*.dll

!define COMMAND_PATTERN {%m %p}

!define TEST_RUNNER {dotnet2\FitServer.exe}

!define PATH_SEPARATOR {;}

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DoFixture:

Your own test language

```
public class Insert : DoFixture
```

Insert			
Add Snack	Pizza Hawaii	with price	5,3
Add User	Joe	with credit	5

```
public void AddSnackWithPrice(string snackName, double price)
```

```
public void AddUserWithCredit(string userName, double credit)
```

ColumnFixture:

Testing values Easily

```
public class OrderSnack : ColumnFixture
```

Order Snack			
Qty	Snack	For user	Result?
1	Pizza Hawaii	michel	Success
1	Pizza Hawaii	michel	You don't have enough credit. You need €0,6 extra.

```
public double Qty { get; set; }  
public string Snack { get; set; }  
public string ForUser  
public string Result { get; set; }
```

```
public override void Execute()
```

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RowFixture:

Batch comparisons

```
public class GetTodaysOrders : RowFixture
```

Get todays orders			
Qty	Snack Name	Snack Price	Total Price
1	Pizza Hawaii	5,3	5,3

```
public override Type GetTargetClass()
```

```
public override object[] Query()
```

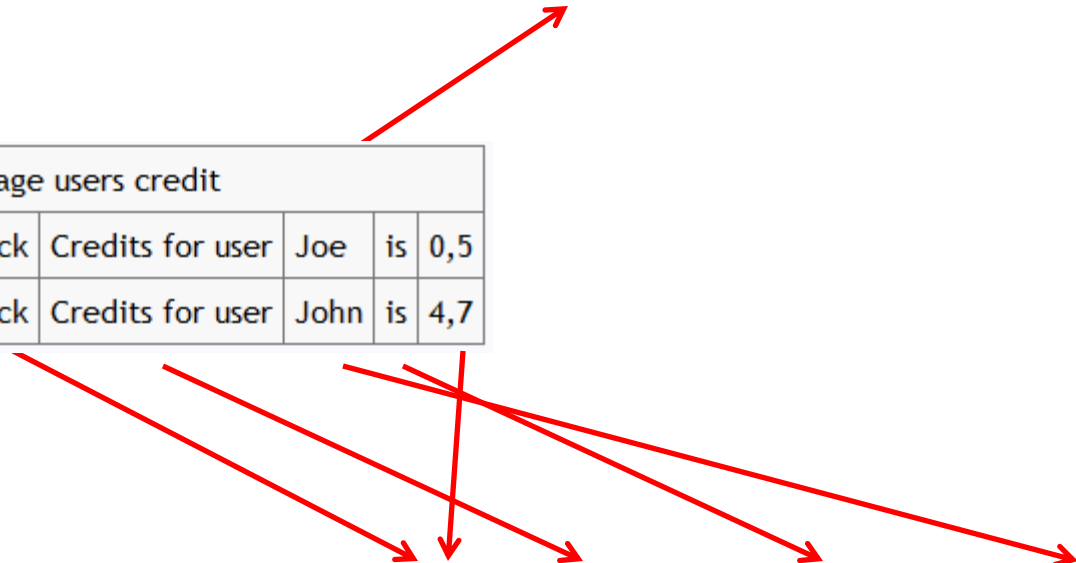
DoFixture:

Your own test language

```
public class ManageUsersCredit : DoFixture
```

Manage users credit				
Check	Credits for user	Joe	is	0,5
Check	Credits for user	John	is	4,7

```
public string CreditsForUserIs(string userName)
```



Organising FitNesse:

- ▶ 3 Suites in Fitnesse
 - Prepared Test Suite – tests for next iterations
 - Work In Progress – doesn't break the build
 - Acceptance Suite – breaks the build!

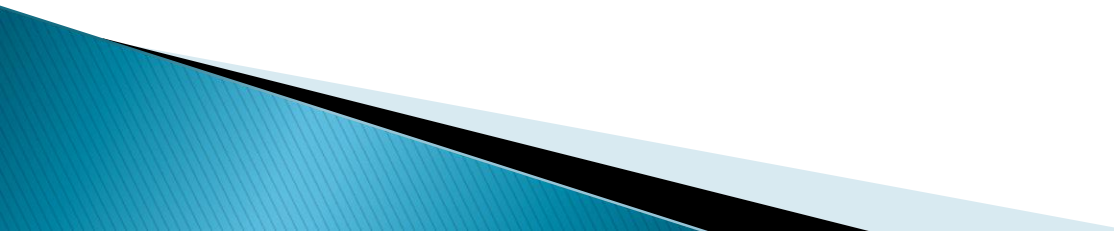
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- ▶ Retrospective (5')



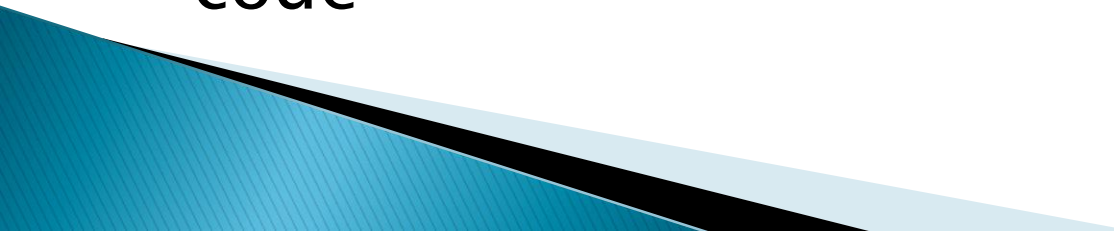
What's in it for you?

ScrumMaster / Product Owner

- ▶ Developers will actually read the specifications
 - ▶ They will understand the stuff correctly
 - ▶ They will not skip parts of the spec
 - ▶ You can track the development progress
 - ▶ Save time on acceptance/smoke testing
- 

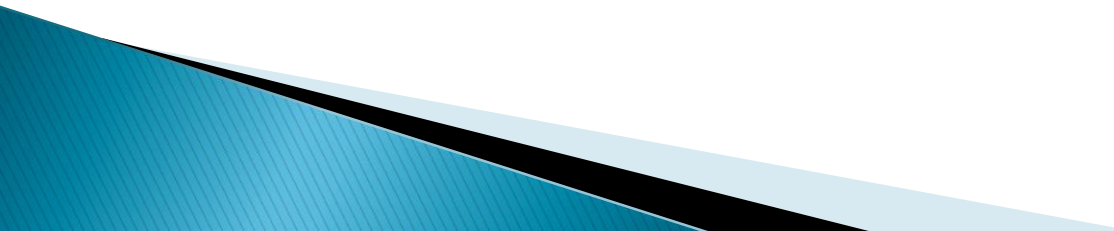
What's in it for you?

Developer

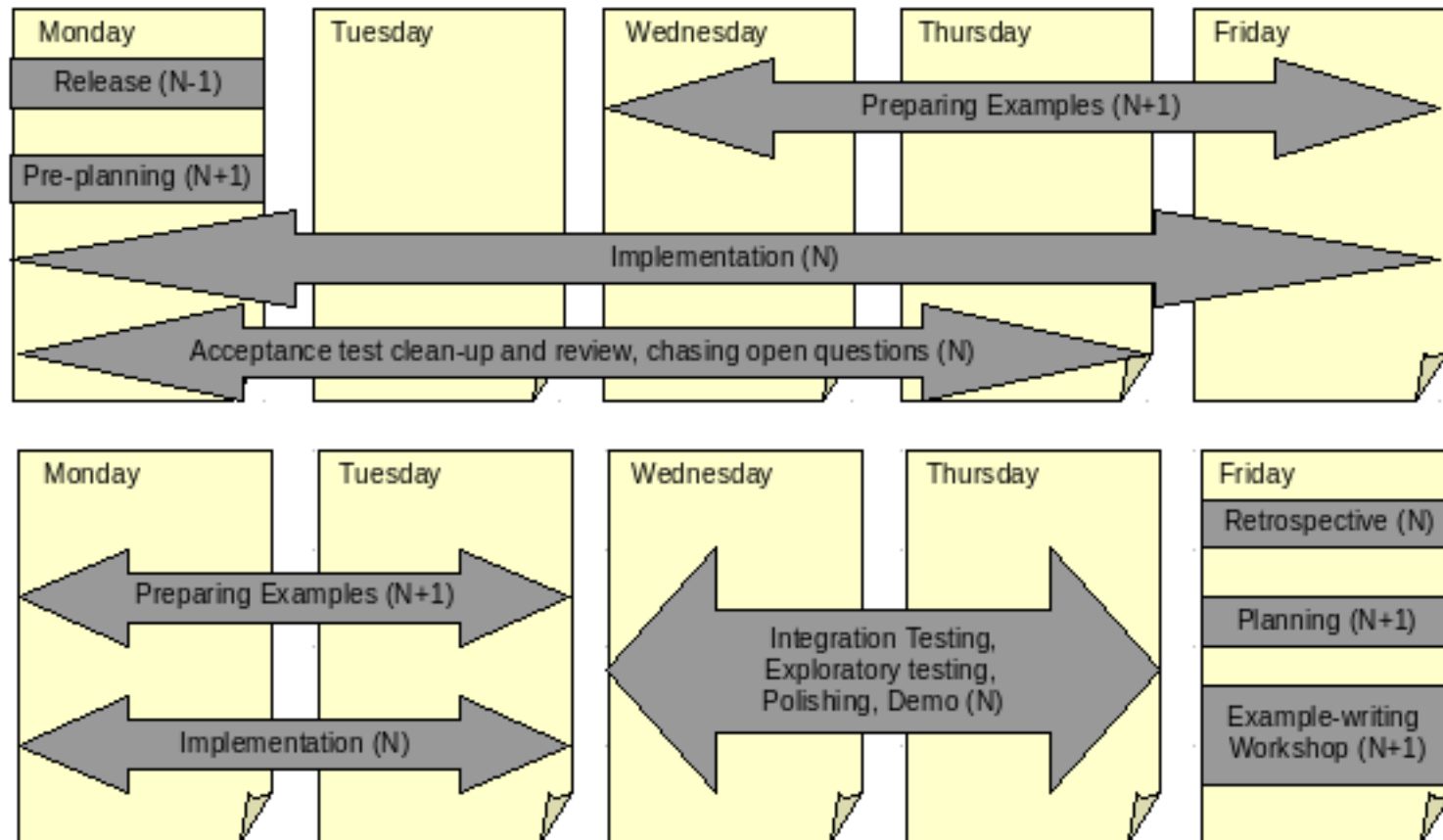
- ▶ Requirements will be unambiguous and without functional gaps
 - ▶ Business analysts will really understand those special cases you mentioned
 - ▶ You will have automated tests to guide development
 - ▶ It will be easier to take-over and hand-over code
- 

What's in it for you?

Tester / Business Analyst

- ▶ Finally stop those guys from making the same mistakes over and over
 - ▶ Avoid doing the same stuff all the time
 - ▶ Build quality in from the start
 - ▶ Verify business rules by a click on a button
- 

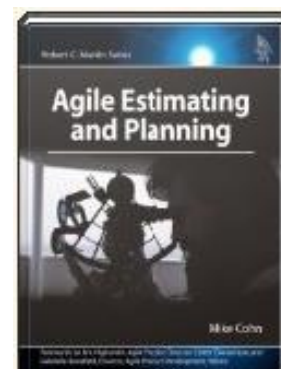
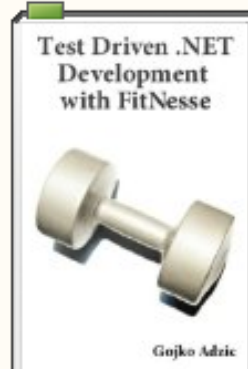
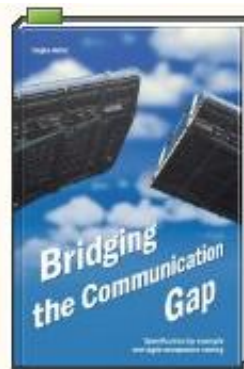
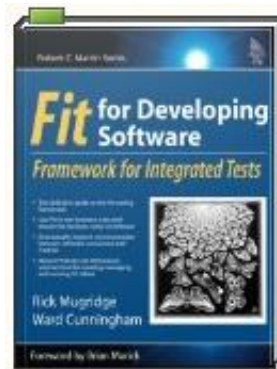
Iteration Flow (just a suggestion)



<http://gojko.net/2008/09/17/fitting-agile-acceptance-testing-into-the-development-process/>

Resources

▶ Books



▶ On the web

- <http://fitnesse.org/>
- <http://sourceforge.net/projects/fitlibrary/>
- <http://gojko.net/>
- http://codebetter.com/blogs/ian_cooper/archive/2008/10/13/fitnesse-and-the-three-way.aspx

▶ Yahoo Group

- <http://tech.groups.yahoo.com/group/fitnesse/>

Closing

