nagarro

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BDD - Behaviour Driven Development

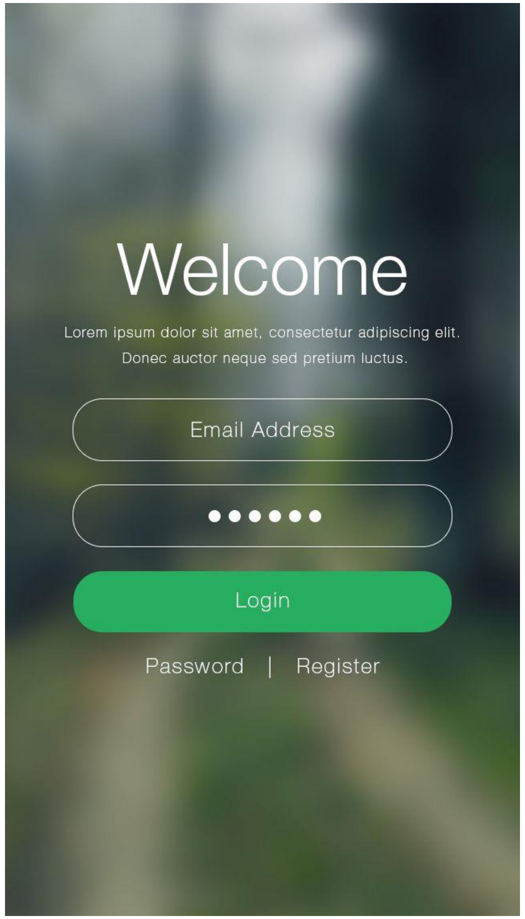
Let‘s Start from the Business Perspective

Sample User Story:

A User should register with a secure password

As an unregistered user
I **want to** register with a secure password
So **that** my user account can‘t be hacked

How do you really know what behavior
of the system is expected by the customer?



Welcome

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https://dannorth.net/introducing-bdd/

Exercise – From Customer Vision to Software Product

How Do You Usually Approach Software Development?

- What kind of conversations about how the system should behave do you have with business stakeholders?
- How do you know what it is that you should implement?
- How are the requested requirements communicated to you?
- What is the connection between your tests and the user‘s point-of-view?

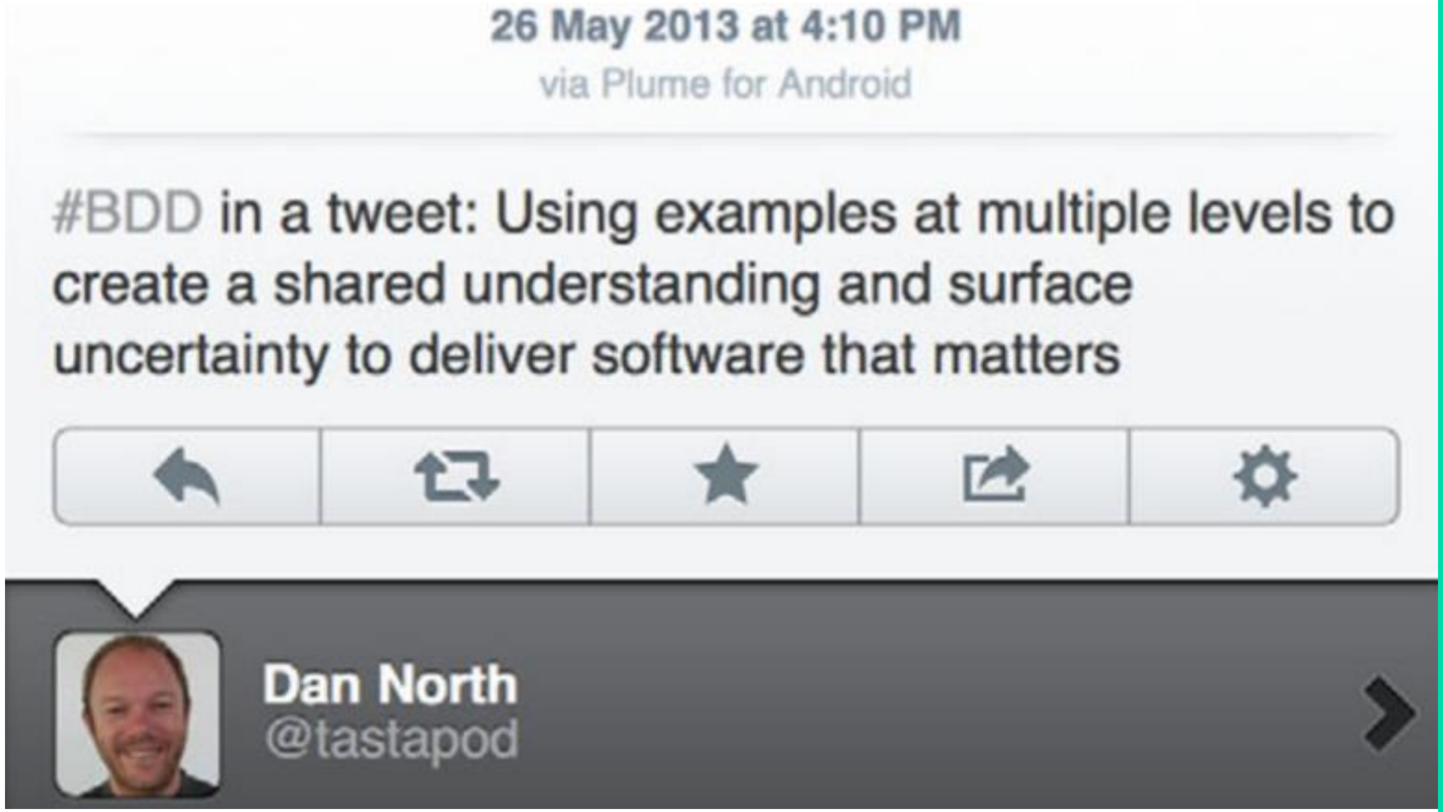
- What challenges do you face when you transform the customer‘s vision into a software product?

Exercise – From Customer Vision to Software Product

Known Problems

- I don‘t know where to start implementing
- Test specifications are not understood by business people due to technical details
- I did not focus on the most valueable behaviour of the system when putting high effort into automated tests and features
- There are no examples that help to understand want the customer wants
- We addressed a customer problem with software too early that could have been solved in a different way
- We have no common language that everyone involved with the project can understand

BDD in a tweet



26 May 2013 at 4:10 PM

via Plume for Android

#BDD in a tweet: Using examples at multiple levels to create a shared understanding and surface uncertainty to deliver software that matters

Dan North

@tastapod

Different Roles – Different Needs?

Business Analysts

- Thinks about examples
- Converts examples into abstract requirements
- Needs examples to understand the business

Developer

- Tries to understand and interprets the documentation
- Invents new examples to test the implementation
- Needs examples to implement and test the code

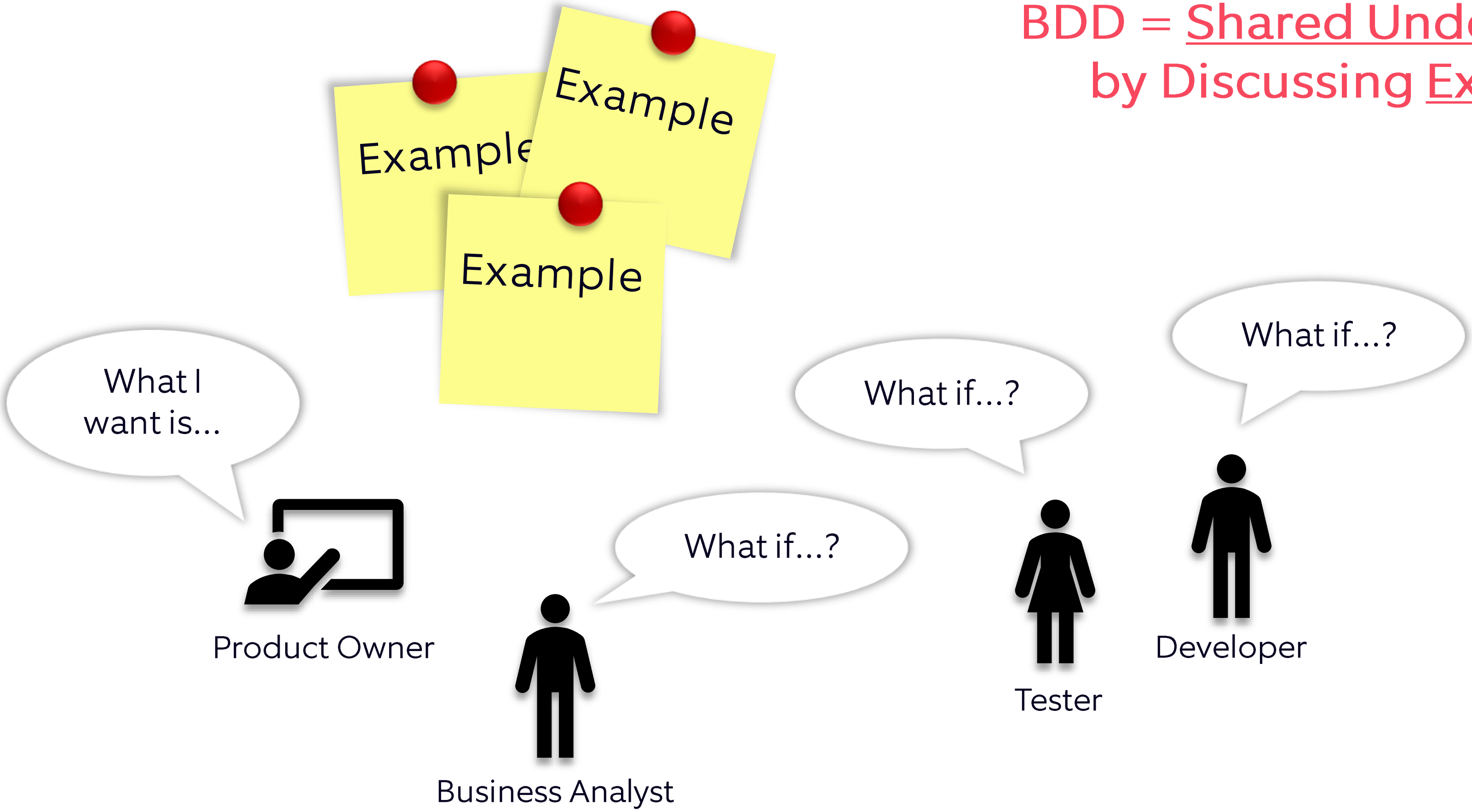
Testers

- Looks for examples
- Ask Business Analysts to explain the requirements
- Needs examples to implement testcases

Why don’t we just talk together about the examples?

BDD in a Nutshell

BDD = Shared Understanding
by Discussing Examples



https://agilecoach.typepad.com/agile-coaching/2012/03/bdd-in-a-nutshell.html

What Is Behaviour Driven Development

Development methodology coined by Dan North that:

- Starts from the „outside“ view (i.e. user‘s perspective) to identify business outcomes
- Promotes communication accross stakeholders to create a common vision
- Focuses on understanding and discovering of user stories by using examples as specification (scenarios)
- Results in a description of system behaviour from the user‘s point-of-view
- Utilizes an ubiquituous language understood by all people involved

https://dannorth.net/introducing-bdd/

https://en.wikipedia.org/wiki/Behavior-driven_development

Sounds easy enough!
Right?
Not really!

BDD – What It Does and What It Does Not

Yes

- Helps you finding out what to implement
- Helps you finding out how the system should behave

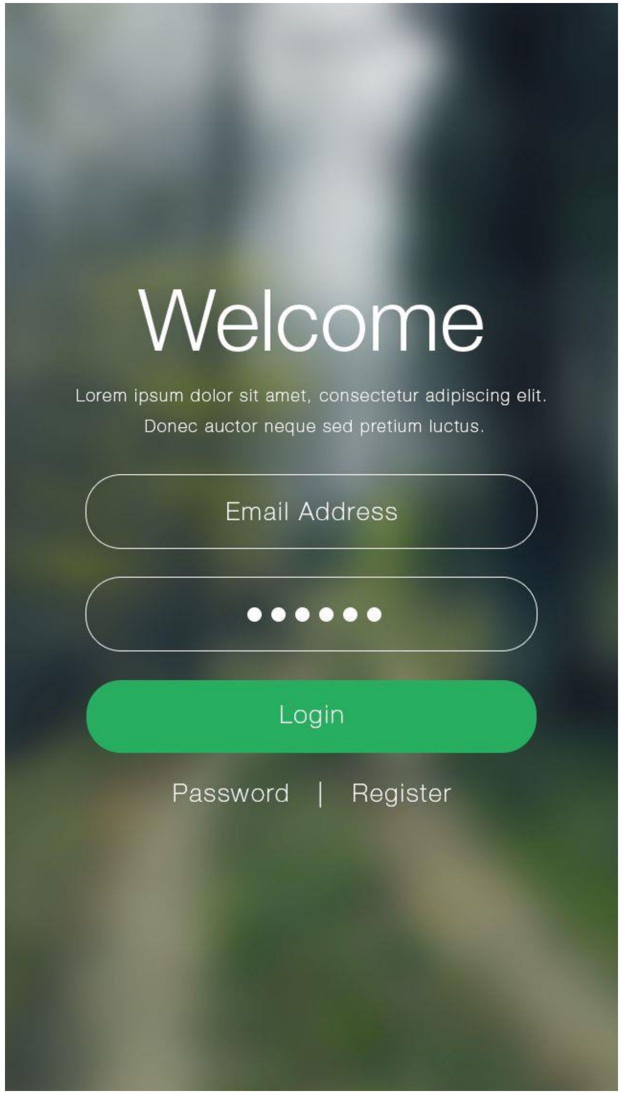
- Tells you how to implement your test and production code
- Tells you how to automate your tests
- Tells you what format to use for specifying scenarios

No

The Secure Password

Acceptance criteria

- A password must contain at least 8 characters
- A password must contain at least one number
- A password must contain at least one special character
- The user should get an error message if the password is not secure



Welcome

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The Secure Password

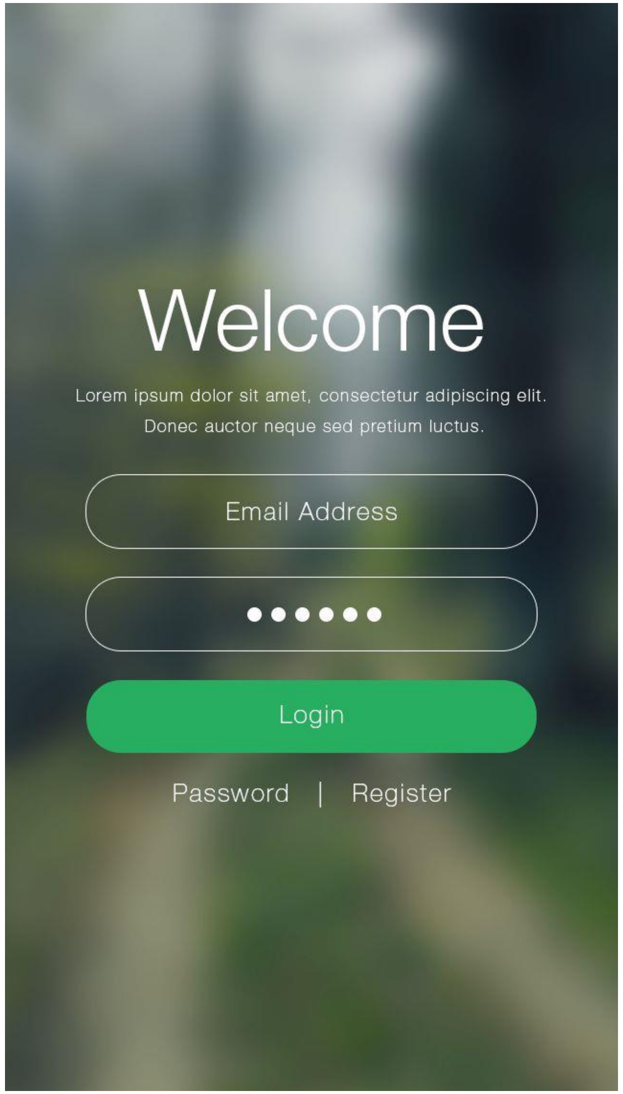
Examples found …

Password	Categorie	Result
Secret	Weak	False
Password	Weak	False
Password1!	Weak	False
aBcDeFg1	Weak	False
Qwertz12	Weak	False
djEzDip9	Medium	True
GenuipigLeopard	Medium	True
GenuipigLeopardCatapult	Strong	True
w592eU[8i5:}	Strong	True

The Secure Password

The improved (new) acceptance criterias

- Passwords should not be subject to rules but should be divided into strengths.
  - Strong
  - Medium
  - Weak
- The password should at least be categorised as medium.
- Is the password to weak the User should be informed.



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BDD and the Agile Mindset

> “*Having the conversation*
>
> *is more important than capturing the conversation*
>
> *is more important than automating the conversation.*”

Liz Keogh

https://lizkeogh.com/2013/06/17/theres-no-such-thing-as-declarative-and-imperative/

Applying Behaviour Driven Development

Dan North suggests the following format aka *Gherkin* language to describe scenarios:

Given some initial context (the givens)

[And some additional optional context]

When an event occurs

then ensure some outcomes

[And some additional optional outcomes]

Alternative styles:

Arrange, Act, Assert

Setup (Given), Exercise (When), Verify (Then) and Teardown

https://dannorth.net/introducing-bdd/

https://martinfowler.com/bliki/GivenWhenThen.html