Agile Requirements Management with User Stories

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In association with AgileInnovation
Agenda

• Why user stories?

• Backlogs, Epics, Stories, Acceptance Criteria...

• Estimation and Planning with Stories
What’s Wrong with ‘Requirements’?

– Mandatory, Fixed, Hard to Change
– Feature Centric rather than Value Centric
– Specify the What, not the Why
– Critical bits hidden in the detail
– Expensive
Communication Modes

http://www.agilemodeling.com/essays/communication.htm
From ‘All at Once’ to ‘A Little at a Time’
What is a User Story?

• A Written Card
  – For Planning
  – A Promise to Talk
    • Spec by Example
    – Acceptance Criteria

• It Defines
  – The Actor/User/Persona
  – The Goal/Action/Task
  – The Benefit/Value

• What its not:
  – A Use Case
  – Requirements Document
  – Scenarios
Why User Stories?

• **User Centric** – what’s important to your customer
• **Story** – The Power of Narrative
  – We pay much more attention to stories than facts
  – Drives generation of tacit knowledge
  – A story paints a picture, and a picture tells a thousand words
• Focus on the benefit, the value, what’s important
  – Define Acceptance Criteria BEFORE we implement
• Supports ‘pull’ of information as its needed
  – Iterative development
Specification

The product shall have a gasoline-powered engine.

The product shall have:

a. The product shall have a tire mounted to each wheel.

The product shall have:

a. The product shall have a horn on the steering wheel.

The product shall have a steel body.
User Story

As a HomeOwner, I want to regularly trim my lawn so its neat and tidy.
Co-Design

Problem Space
- Customers
- End Users
- Domain Experts
- Product Owner

Innovation Space
- Uncertainty
- Ambiguity
- Conversation
- Social Objects

Solution Space
- Developers
- Architects
- UI/UX Designers

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**Vision**

**Theme**
- Strategic Objective
- May be 1 or more per release

**Feature/Epic**
- Large, Uncertain Stories

**Story**
- Sub-Sprint

**Premium Frequent flyer benefits**
- Book flights
- Cancel flights
- Book using air miles
- Rebook a flight I take often
- Cancel up to 24 hours before with no charge
- Emailed confirmation

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As a <role> I need <action> so that <result>

<table>
<thead>
<tr>
<th>Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a customer I can search for products so that I can view their details</td>
</tr>
<tr>
<td>Value: Med Risk: Low</td>
</tr>
</tbody>
</table>

**Confirmation**
- I can find all products
- I can use any search criteria I need
- Once found I can view details
- ....

**Conversation**

**INVEST**
- Independent
- Negotiable
- Valuable
- Estimable
- Small
- Testable

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User Story Example – Email Attachments

Email Attachments.
As a user I want emails with attachments to go faster so that I can work more efficiently

Confirmation:
- User notices emails with attachments go at least twice as fast
- Works with attachments up to 10MB
- Works with up to 50 attachments

CONVERSATION:
- What if attachment already compressed?
- What if it’s a small file to start with?
- Should we store the compressed version?
- Should we allow user select compression options?
- Would up to 100 attachments be enough?
- Can each attachment be up to 10MB?
User Story Example – Hotel Reservation

Reservation Cancellation

As a user I want to cancel a reservation so that I avoid being charged full rate

Confirmation:

• Verify a premium member can cancel the same day without a fee
• Verify a non-premium member is charged 10% for same day cancellation but otherwise not charged
• Verify an email confirmation is sent to user with appropriate information
• Verify that the hotel is notified within 10 minutes of a cancellation

CONVERSATION:

• What if I am a premium member – do I have charges?
• When is a non-premium member charged and how much?
• How do these vary depending on when cancellation occurs?
• Do we need to send the user confirmation by email?
• When does the hotel need to be notified?
• What if the user has paid a deposit?
Purpose of confirmation/acceptance criteria

- define the boundaries for a user story/feature
- help the product owner answer what she needs in order for this feature to provide value (typically these are the minimum functional requirements)
- help the team gain a shared understanding of the story/feature
- help developers and testers to derive tests
- help developers know when to stop adding more functionality to a story
# Vertical slices

<table>
<thead>
<tr>
<th>Iteration 1</th>
<th>Iteration 2</th>
<th>Iteration 3</th>
<th>Iteration n</th>
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<tbody>
<tr>
<td></td>
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<td><strong>User Interface</strong></td>
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<td><strong>Application Layer</strong></td>
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<td><strong>Business Layer</strong></td>
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<td><strong>Data Access Layer</strong></td>
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<td><strong>Data base</strong></td>
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Product Backlog

- A list of all desired work the project
- Product Backlog Items (PBIs)
  - Usually a combination of
    - Feature/story-based work (“let user search and replace”)
    - task-based work (“improve exception handling”)
    - constraints (“10,000 transactions a second”)
    - bugs
- List is prioritized by the Product Owner
  - “What’s the most important thing we could be doing now?”
    - Balance Business Value & Risk
- Initial backlog and ongoing backlog ‘grooming’
Q&A

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