LEVERAGING USER STORIES IN AGILE TRANSFORMATION

A Value-Driven Approach to Documenting Requirements for Agile Teams

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INTERNSHIP PROJECTS

+ **Connected Devices Project**
  - Requirements development and management for module titles and user interface access
  - Document an end-to-end diagram for Connected Devices

+ **Clinical Data Repository Tabular Project**
  - Requirements development and management to enable CDR support for password-protected SAS and excel-based files

+ **Process Improvement Project**
  - Best practices in creating user stories
“1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.”

Agile Manifesto
PRESENTATION OVERVIEW

+ Agile Philosophy on Customer Value
+ Documenting Customer Value with User Stories
+ Reinforcing Customer Value with Quality Attributes
+ Navigating Customer Value with the Inspect-Adapt Approach
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AGILE TRANSFORMATION

• Capterra states that 71% of companies are implementing Agile.

• VersionOne reveals that Agile adoption has helped out 98% of companies.

• Harvard Business Review declares that 60% of companies experience revenue growth and profits increase after using an Agile approach.

• Standish Group Chaos Study reports that Agile success rate is 42%, as compared to Waterfall success rate of 26%. This means Agile is 1.5x more successful than Waterfall model.
AGILE IS WAY OF THINKING.

- Not everything needs to be figured out right away.
- Get feedback early and often.
- Anticipate and quickly adapt to change.
- **Focus on bringing value to customers.**
THE PRODUCT BACKLOG (SCRUM)

- Implementable items to build features
- Features planned for delivery
- Vision, strategy, and ideas for new features and tools
80% of value typically resides in 20% of features.

65% of features provide little to no value, are rarely used and/or aren't actually desired by the customer.

The rest are OK, but not as important.
FIGURE 1. THE DECREASING PROBABILITY OF INTRODUCING DEFECTS DURING THE DEVELOPMENT LIFE CYCLE (TOP PANEL) AND THE ...
THE PRODUCT BACKLOG (SCRUM)
<table>
<thead>
<tr>
<th></th>
<th>User Story</th>
<th>Use Case</th>
<th>SRS IEEE 830</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents the value the software brings to the customer</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightweight</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A promise for a conversation</td>
<td></td>
<td></td>
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I'll need to know your requirements before I start to design the software.

First of all, what are you trying to accomplish?

I'm trying to make you design my software.

I mean, what are you trying to accomplish with the software?

I won't know what I can accomplish until you tell me what the software can do.

Try to get this concept through your thick skull: the software can do whatever I design it to do!

Can you design it to tell you my requirements?
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As a <user role>
I want <goal>
so that <benefit>.

Who benefits from the value the product feature offers
What a product should be able to do
How the product feature adds value
USER STORY EXAMPLE

Summary

Canonical template

Condition of Satisfaction

**Sign Up - Driver**

in 1st Sprint 1 - Due Date Dec 31st

**LABELS**

- Backend
- Frontend

**Description**

As a restaurant owner, I want to be able to register on Romy’s Hungry so that I can begin taking orders.

**Attachments**

- upload 12/22/2016 at 2:48:36 PM.png

**Acceptance Criteria**

- User should be able to register with FB
- User should be able to register with Email + Password + Picture + Car details - Make plus License Number + Phone Number
- User should be able to Login
USER STORY EXAMPLE

Auxiliary Information

Condition of Satisfaction

Auxiliary Information

Attachments

Acceptance Criteria

- User should be able to register with FB
- User should be able to register with Email + Password + Picture + Car details - Make plus License Number + Phone Number
- User should be able to Login
- User should be able to Logout
- User must check off the TERMS AND CONDITION to create account
- User should be able to retrieve password according to design flow

Driver Account

- Must upload Driver's License
- Must go through a manual check - verification
- Must be approved by admin
- Need to update hours they can work
- Location
Avoid traveling stories by defining “ready” and “done”.

- Is the user story valuable?
- Is the user story actionable?
- Is the user story feasible?
Figure 2. Impacts of User Stories, Definition of Ready and Definition of Done, modeled using the Agile Practice Impact Model [20]
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# The 7 Product Dimensions

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<th>Environment</th>
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<td>The product enforces constraints</td>
<td>The product conforms to physical properties and technology platforms</td>
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Non-functional
# The 7 Product Dimensions

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Software Quality Attributes:
- Availability
- Modifiability
- Performance
- Security
- Testability
- Usability
“You built what I asked for, but it's not what I need”
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Scrum offers multiple opportunities for feedback.

- Short development cycles
- Customers and business stakeholders are involved throughout the lifecycle
- Make informed decisions on regarding prioritization and planning for the next cycle
Figure 1. The life cycle of a user story: from ideation to acceptance.
“It’s not about achieving Agile for Agile’s sake. It’s about delivering customer value and achieving better business outcomes.”

Mario Moreira
The Agile Enterprise: Building and Running Agile Organizations
REFERENCES


