



An Agile Project In Review

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Presentation Focus

- The presentation will focus on the way requirements were captured and how these requirements were used in the planning, estimation, building and testing phases of the development cycle.
- It will explore the following:
 - Project Setup
 - Progress to Final Requirement solution
 - Using Requirements in Estimation
 - Testing
 - Requirement Management

Initial Project Setup

- 1 customer
- 1 week iterations
- 1 Project Manager
- 6 Developers (On Average)
- No BA
- No Testing

Project Driver

- Prototype for a potential start-up dot com
- The focus was on a catchy UI
- The customer was also desperate to get the functionality to market ASAP
- Requirements were sketchy
- Time and Materials

Agile Manifesto

- **Remember the Agile Manifesto:**
 - **Individuals and interactions** over processes and tools
 - **Working software** over comprehensive documentation
 - **Customer collaboration** over contract negotiation
 - **Responding to change** over following a plan
- The development team and the customer decided on an Agile approach
- A very short 1 week iteration was agreed upon
- Initially no BA or Tester required

Starting

- When I started as the BA/Tester the customer was NOT sitting with the dev team
- The team was developing using one line user stories documented in XPlanner
- XPlanner became our medium for requirements, estimation and calculating velocity.
- Problems
 - Not enough requirements direction
 - No testing direction
 - The Dev progress was slow

The First Iteration

- Meetings were arranged with the customer where the functionality for the next iteration was discussed
- Moved to a more detailed UI and detailed the requirements like a Use Case
- Problems
 - Too time intensive
 - Requirements were not signed off, therefore no need to go into excessive detail

Iteration 2

- Moved from a detailed UI to a wire frame with a series of business rules
- Maintained the UC in a separate document
- Problems
 - The client found it difficult to visualise the wire frame
 - Time consuming
 - No Testing scenarios
 - Published
 - UC too detailed

Iteration 3

- Dropped the standard UC
- Combined the UI with a cut down UC
- Started using an authoring tool called AuthorIt
- Problems
 - This was still too time consuming
 - Not devoting enough time to testing
 - There was still too much detail being captured

Final Requirements Solution

- The combined UC and UI was reduced
- Each Story was detailed into the following sections:
 - Description
 - Story / Main Scenario
 - Created UI mockups
 - Listed the Business Rules
 - Test Cases
- Each story including UI was only a couple of pages long
- Used XPlanner to allowed the Dev team to hook straight into the requirements for task planning
- Used Authorit to publish to HTML and Word

Estimation

- An estimation session included the entire team
- Take about an hour
- Conducted at the end of the iteration prior to finalising the next iteration
- Used a points based system rather than ideal days
- Velocity was calculated over a 4 week period
- Velocity dictated the number of scenarios per iteration

Testing

- Testing scenarios were added to the bottom of each Story
- Automated using an open source product called “Bad Boy”
- Executed at the end of each iteration and as a post implementation verification test
- Main test scenarios were maintained
- The Development team used the testing scenarios to design their unit tests

Tasks

- The Development Team Lead broke the Stories down into tasks
- Developers chose which tasks they wanted to work on
- The task was only checked off once completed
- Tasks included writing the unit test where necessary
- Approximately 80% of the code was unit tested
- A Story could last for 4 hours to a couple of days

Requirements Management

- Captured the list of features as a story and entered into XPlanner
- This list became the backlog
- The backlog was prioritised
- The Story was fleshed out into the structure described previously
- The Stories were then estimated
- The number of Stories chosen for the next iteration was based on the velocity

Positive Outcome

- The project was completed 25% faster than expected
- Extremely low defect rate
- Stand ups for project snapshot
- Retrospectives for process improvement
- Combining the UI and Story together
- Authorit / XPlanner
- Small feedback loop
- Automated testing

Negative Outcomes

- Limited access to the customer
- Too much testing automation is expensive
- Iteration was too short
- Authority
- Detailed UI mockup

End of Presentation

- Questions?