Acceptance testing in DevOps projects
Our long and painful journey towards DevOps
What we’ve learnt from testing standpoint

- Shorter iterations (1 to 4 weeks) lead to massive test automation completed by exploratory testing
- Acceptance tests become the specification
- Testing starts earlier in the development process: *Shift left!*

![Diagram showing the stages of test execution: Req Management & Definition, Test Planning, Execution, Defect Management.](image)
Acceptance testing driven development
Shift left

Product Backlog

Sprint Backlog

Acceptance testing

Sprint
1 to 4 weeks

Product at the end of the iteration

Acceptance testing

Scrum team

PO
developers

PO
developers

PO
developers

PO
developers

PO
developers

PO
developers

PO
developers

PO
developers

testers

testers

Scrum master

Scrum master
Acceptance Testing Driven Development (ATDD)

- Acceptance test is a powerful artifact to improve communication
- Test as the definition of ‘STOP’
- Written prior to development by tester
- Based on a business DSL (domain specific Language)
- Confirmed with stakeholders
- Mostly automated
Acceptance Testing Driven Development (ATDD)

- **Benefits:**
  - Improve communication and collaboration: crucial with distributed team
  - Shared understanding of what a successful implementation means
  - Better coverage of business expectations
  - Faster feedback

- **Challenges:**
  - New methodology that requires rigor and discipline
  - Find the right balance between people/process/tool
ATDD & Refactoring

My view as product owner & tester: Acceptance tests need to be continually reviewed and refactored just like code!!!

Martin Fowler
Using a DSL to define acceptance tests and doing refactoring
Define new business actions...

Define progressively your business terminology with Action Words. Enable collaboration based on acceptance tests.
…or define business actions right from the tests

Define progressively your business terminology with Action Words. Enable collaboration based on acceptance tests.
Reuse, reuse and reuse!

Create and maintain consistent scenarios for your project
Add, remove, modify Action Words and Scenarios

Add parameters to Action Word

Propagate automatically to the scenarios

Test refactoring enables to perform automatically impact analysis and test maintenance tasks
Evils of duplication
Analyse and optimize continuously your tests

Reduce dramatically the maintenance cost!
Use of Action Words significantly decrease the cost of automation and accelerate the overall testing cycle
So your acceptance tests are...

**Understandable**
Definition of business domain tests enable better alignment of distributed team

**Maintainable**
Refactoring and optimization features dramatically accelerate maintenance

**Can be automated**
Good design based on Action Words streamlines the test automation phase
Questions & Answers