WHO OWNS QUALITY IN AGILE?

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My Journey With Agile
• From Development to Engineering
• Different flavors of Agile
  • Premier: successful transformation to agility
    • Teamwork, Scrum, Kanban
    • Automation, technical transformation, DevOps
    • Frequent delivery, flexible roadmaps, feedback from customers
• But...
PROBLEM #1
THE SPRINT IS TOO SHORT

I need more time to test!!!
QA
• Deadlines
• Stress
• Pressure
• Low quality

Dev
• Out of sync
• Can do more
• Let's pull more stories into sprint
PROBLEM #2
THE DEFINITION OF QUALITY

What is quality?
Phased Development Cycle:

- Phased approach:
  - Not “product testing” but “requirements testing”
  - Hierarchy of silos: Dev on top, Test in the bottom (downstream)
“Quality is conformance to requirements and is measured in the number of rejects from customers”

“Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated and implied need”
IMPLIED NEED?
QUALITY

CONFORMANCE
USER SATISFACTION
PERFORMANCE

Cannot be achieved through testing (Quality Control) alone!
PROBLEM #3: SILOS!!!

I am not a tester!
THE HIERARCHY OF SILOS:
WHO MAKES DECISIONS?
WHO IS SMARTER?
WHO HAS MORE EDUCATION?
WHO MAKES MORE MONEY?
• In the silos we can only do Dev and Test (Quality control)

• To achieve real quality (stated and implied needs) we have to break the silos
Things to be aware of:

- **Organizational** silos: companies must restructure Engineering to make it cross-functional

- **Mental** silos:
  
  "I am not a tester"

  "The developer tells me what to test"
PROBLEM #4
QA VS DEV,
THE CONFLICT OF INTERESTS

Where is QA manager?
INSTEAD OF QA SILO:
• Build community of Quality professionals and enthusiasts
• Let the leaders emerge
• Share experience
• Establish consistent Quality process across the Org
BREAKING SILOS:
- Merge the roles: we are all Software Engineers
- Use the same tools, share access
- Cross-train
- Automate
PROBLEM #5
LET’S AUTOMATE EVERYTHING!

Do I still have my job?
The “primitive” manual testing...

- **Primitive**
  - Write test cases without understanding the application
  - Execute test cases written by someone else
  - Cross-test

- **Advanced**
  - Understand user’s need
  - Know how the system is hosted & operated
  - Explore and learn

- **Extreme**
  - Stress the system until it breaks
  - Find flaws
  - Hack
Some tests will never be automated:

- User experience
- Ad-hoc testing (unscripted)
- Security
- Exploratory (learning)
PROBLEM #6
MANAGING DATASETS

How do I maintain and reuse my data?
Creating and maintaining test data sets:

- Identify as pre-condition
- Use test automation tools!
- Make reusable
I am in charge

PROBLEM #1
LOOKING FOR NEW QA!
Looking for “new” Quality Engineers:

- Passionate about quality
- Have deep knowledge of the Business domain
- Understand how the system is hosted and operated
- Extremely technical, can write scripts and write/read code
- Strong and empowered
- Can orchestrate the entire development cycle
Merge of Dev and QA

• Everybody owns quality
• Engineers who like to build things and engineers who like to break them
• Software Engineering $\neq$ Coding
• Software Engineering $=$ Quality Engineering
PROBLEM #8
DEVELOPMENT QUALITY ENGINEERING
<--------SHIFT LEFT<--------

- No silos, the entire Engineering team owns quality
- Quality-related work starts early in the cycle (before coding) and goes across all steps
- The cycle is centered on a user story
- Sprint length doesn’t matter!
Dev & QA

Collaborate on test strategy for each user story (combined effort, but QA has to be driving!)

- Positive and negative use cases: better code quality, awareness
- Performance, Security, Integration
- Data set for testing: use existing or create new?
- Dependencies
- Exploratory testing
- Impact on Test automation
- Impact on Regression

Has to be started before coding and be done in parallel

Better user stories $\rightarrow$ better code $\rightarrow$ better DevOps $\rightarrow$ better test $\rightarrow$ better Quality
Things to remember after you forgot my presentation, my slides and my name...
1. Break the silos
2. Shift left
3. Everybody owns Quality, but QA orchestrates it
4. New Quality Engineering, more powerful and knowledgeable than ever
THANK YOU!
Connect and stay in touch:

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