

Quality

A crash course on quality and quality assurance in
software development

devies

Agenda

- What is quality?
- Why aim for high quality?
- How to deliver high quality?
- Quality assurance

What is quality?

- In business, engineering, and manufacturing, quality – or high quality – has a pragmatic interpretation as the non-inferiority or superiority of something (goods or services); it is also defined as being suitable for the intended purpose (fitness for purpose) while satisfying customer expectations.
- Quality is a **perceptual**, **conditional**, and **somewhat subjective** attribute and may be understood differently by different people.

What is quality in software?

- Purpose of the system fulfilled
- Reliability
- Performance
- Security
- User experience

Why aim for high quality?

- ?

Why aim for high quality?

- Satisfied customers
 - Recurring customers
 - Spreading the good word
- Satisfied developers
 - Well-being
 - Pride
 - Spreading the good word
- Satisfied delivery managers
 - Harmony

How to deliver high quality?

- Definition of Done

How to deliver high quality?

- Organizational bare minimum on software delivered
- Before “pull request”
- After “pull request”

Definition of Done - “*I have developed*”

- Before
 - Code review
 - Just like any other code review
 - Unit testing
 - If applicable
 - Integration testing
 - If applicable
 - Manual testing
 - In relevant browsers / units
 - Side effects
 - I have done everything I can or have shared my concerns
 - Regression testing
 - All green

Definition of Done - “I am peer reviewing”

- After
 - Is the code is self-explanatory?
 - Documentation
 - Is there any potential for improvement?
 - “This will work” is not good enough
 - Bugs?
 - Is the logic solid?
 - Testing?
 - Untested logic == automatic rejection
 - SOLID?
 - SOLID principles
 - Am I okay with shared responsibility for this code?
 - Everything in “main” is ours

Quality assurance - UAT or equivalent

- Manual testing
 - Does everything work?
 - No exceptions or errors/warnings in the console
 - Is the behavior logical?
 - As expected?
 - User feedback?
 - Is the purpose of the system fulfilled
 - Acceptance criteria
 - Nothing old is broken?

Summary

- What quality?
- Why quality?
- How quality?

Questions