Duke Class

2018
About me

President of Mary Thorn Consulting, LLC

Chief storyteller of the book The Three Pillars of Agile Testing and Quality, Mary Thorn is owner of Mary Thorn Consulting in Raleigh, NC. During her more than twenty years of experience with healthcare, financial, and HR SaaS-based products, Mary has held director, manager- and contributor-level positions in software development organizations.

A seasoned leader and coach in agile and testing methodologies, Mary has direct experience building and leading teams through large scale agile transformations.

Mary’s special expertise is a combination of agile, testing, DevOps, and agile scaling skills that her clients find incredibly valuable.

She is also a frequent speaker, teacher and author. You can connect with Mary via LinkedIn here: https://www.linkedin.com/in/marythorn/
The Happiest Jobs In America

1. Software Quality Assurance Engineer
Score: 4.24

QA Skillset

- They are detectives
- They Know How to Plan
- They See the Big Picture
- They Care About the Whole Project
- *They are technical*
Terminology

- **Black Box** - is a method of software testing that examines the functionality of an application (e.g. what the software does) without peering into its internal structures or workings (see white-box testing).

- **White Box** - is a method of testing software that tests internal structures or workings of an application, as opposed to its functionality (i.e. black-box testing). White-box testing is a method of testing the application at the level of the source code.

- **Unit Testing** - is a method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures are tested to determine if they are fit for use. Intuitively, one can view a unit as the smallest testable part of an application.

- **Functional Testing** - Functional testing is a quality assurance (QA) process and a type of black box testing that bases its test cases on the specifications of the software component under test.

- **Integration Testing** - in which individual software modules are combined and tested as a group. It occurs after unit testing and before validation testing. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, applies tests defined in an integration test plan to those aggregates, and delivers as its output the integrated system ready for system testing.

- **Regression Testing** - is any type of software testing that seeks to uncover new software bugs, or regressions, in existing functional and non-functional areas of a system after changes, such as enhancements, patches or configuration changes, have been made to them.

- **User Acceptance Testing** - In engineering and its various subdisciplines, acceptance testing is a test conducted to determine if the requirements of a specification or contract are met. It may involve chemical tests, physical tests, or performance tests.
Do you have the mindset?
QA Process in Agile

- Product Owner writes acceptance criteria. A lot of times the PO works with the QA to help write this.
- During refinement the team discusses the acceptance criteria and sizes the stories. This includes Dev and QA work.
- In Planning Dev and QA create tasks to spell out the work they have to do and assign them hours.
- Once Sprint has started QA work with the PO and Dev to discuss test cases and automation needs.
● QA works in parallel with development while testing and automating to get the story done as fast as possible.

● When testing is complete PO acceptance is done by running the acceptance tests.

● If this is a hardening sprint full regression is ran.
Task:
- Implemented
- Unit Tested
- Code commented
- Code peer reviewed
- In source trunk
- In CI build
- Coverage met
- Standards met
- Tracked
- Other metrics?

Story:
- AC met
- All agreed tasks done
- Functionally tested / auto test built
- All known bugs fixed
- CI success, including DB / config updates
- Smoke-tested
- Integration tested
- Tracked
- Documented for user view

Sprint:
- End date met
- Stories demo’d
- UAT complete
- Retro held and documented
- Product backlog updated
- Exploratory testing done
- Performance (etc.) tested
- Regression suite updated and verified
- All bugs closed or postponed
- Installation works
- Documented for tech. view

Release:
- All agreed sprints done
- Integration tested / hardened
- Documentation “tested”
- Install packages complete
- Release notes
- Marketing collateral
- Regression test suite complete
- Security testing
- PO sign-off
Agile Test Automation

● 3-tiers of Automation
  – Unit, Component/API, and UI

● Whole team ownership

● Varied granularity

● Iteratively built w/software – DoD

● Ongoing maintenance

● Open source tooling

● Coupled to CI/CD environments
Test Automation Pyramid

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QA career path

- Technical Support Operators
- Business Analysts
- Developers
- Clients
- YOU!