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# **Agile and Other Development Methodologies**



# Development Methodology of The Texas Legislative Council North Star Applications Team

- Combination of Agile, Kanban, and team experience
- What follows is the Quality Assurance Practices for our latest project.



# Specifications Workshop

**Who:** Development team

**Description:**

- Project Leader or QA creates the story. Sometimes the technical lead writes the story.
- Acceptance criteria usually documented in G/W/T. A mockup will be included as a guide.
- The team discusses the acceptance criteria to ascertain it is complete and understood before development begins.



# Specifications Workshop

## Description (continued):

- Developers review the acceptance criteria and add questions/comments before the workshop in order to make the discussion more productive.
- Test scenarios are discussed and spec updates as needed
- If shared components are to be changed, discuss and document so it can be tested.
- Determine level of automated testing
- Decompose large stories as needed.



# Manual Developer Testing

**When:** During development

**Who:** Developers

**Description:**

- Verifies that code works as specified for all test scenarios
- Run the application and verify before merging to dev branch



# Automated Unit Testing

**When:** During development

**Who:** Developers

**Description:**

- Create automated unit tests for front end code
- Unit tests should run automatically when merging to Dev branches.
- Helps promote quality in the code being built.



# Developer QA

**When:** After development

**Who:** A developer on the same team who did not implement the story, according to agreed upon documented standards.

**Description:**

- Review acceptance criteria and test scenarios.
- Review code and verify that it follows the established standards
- Execute unit tests and ensure sufficient coverage.
- After deploying to Dev, test again **all supported devices** and web browsers.



# Acceptance Testing

**When:** After development and Dev. QA Testing

**Who:** Quality Assurance Analysts (QAs)

**Description:**

- Test scenarios manually on all supported devices and web browsers, including Citrix.
- Inform the other team's QA that story is ready for cross-team acceptance.
- Do some exploratory testing.
- Consider documenting testing steps in story.





# Production Quality (PQ) Testing

**When:** At the end of each milestone

**Who:** All members of the development team, plus outside teams

**Description:**

- Test feature(s) manually on all supported devices and web browsers
- Verify usability while testing real client workflows
- Perform exploratory testing



# Performance & Load Testing

**When:** At the end of the project

**Who:** Developers, DBAs, other infrastructure support staff

**Description:**

- Verifies responsiveness based on an expected number of simultaneous users.
- Validates the correctness of the response



# Retrospectives

**When:** After each milestone and PQ testing, or as needed

**Who:** Entire development team

**Description:**

- Discuss what is working well and what needs improvements. Tweak processes, as needed.