## **How We Test Cloud Foundry: Exploratory Testing for Complex Software**

**Speaker:** Elisabeth Hendrickson – author of *Explore It!: Reduce Risk and Increase Confidence with Exploratory Testing*, director of quality engineering for Cloud Foundry, and VP R&D at Pivotal. She is best known for her Google Tech Talk on Agile Testing and her popular Test Heuristics Cheat Sheet.

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Summary: The speaker began with a brief introduction to Cloud Foundry, an open source cloud

computing platform as a service (PaaS) owned by Pivotal Software. As the director of quality

engineering for Cloud Foundry, her biggest challenge of this massive project came from a big team

composed of 22 sub teams across 6 sites and numerous codes, moving parts and infrastructures.

Instead of writing test plans, running manual regression tests, and setting quality metric targets, she

chose to direct the team in a non-traditional QA fashion. She let PMs decide acceptance of products

and teams ensure the quality. Team members were paired up to work on test-driven development,

fully automated regression tests, and continuous integration. To complement what was insufficient,

they followed the form of "explore/with/to discover" to create "charters" for exploratory testing,

which can be contributed by anyone in the teams.

The second half of the talk focused on Q&A conversation, which I think provides practical examples for those who have work experiences in the same field, but may not be easily understood by QA beginners. However, I learned from the talk about why and how exploratory testing needs to be conducted when it comes to a complex project such as Cloud Foundry. As described by the speaker, their different teams ended up in testing different configurations and exploring what they were going to explore. The simultaneous learning about the behavior of a system while designing and executing test cases helps to immediately observe the results, which steers the testers to the next little experiments. Last, the speaker concluded her talk with this motto, "I see to the care and feeding of the feedback cycles," a reflection of her philosophy of exploratory testing.