

DeRisk IT Inc. Provides Testing Team for Post-Acute Care Information Technology Company

Background

Our client was a Post-Acute Care Information Technology company that provides long-term care software to long-term care facilities around the country. This company specializes in electronic health records for these facilities and hospitals.

Challenge

The client needed help determining if their approach to software testing was effective. The company underwent product development in a traditional, waterfall approach. The quality assurance (QA) process was to test defect fixes done between releases. QA resources that were assigned to specific projects would write test cases from a functional design document to be tested after the development was completed on the entire project. In addition, there was no manual regression testing being done for the entire software. Only certain high-priority areas were being regression tested, although not in any regular, scheduled intervals. Also, no automation had been put into place for the software.

Solution

The Post-Acute Care IT company initially contracted three offsite testers from DeRisk IT Inc. to work with members of their onsite team. The duties of the DeRisk IT Inc. testers were to assist the company's full-time QA team in manual testing of the existing software, as well as a new web-based application. The DeRisk IT Inc. testers visited the onsite team for one week to undergo training in their software, all at no cost to the client.

DeRisk IT Inc. was also asked to evaluate whether or not it would be beneficial to automate all or any of the software testing using the tool the company purchased. It was determined that the automation tool would not be beneficial to the client for the web-based application since the application itself was still undergoing major changes and development. Also, the team was not yet ready to put it to use for any regression testing of the existing software due to the absence of a complete regression suite.

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One member of the DeRisk IT Inc. management team was contracted as the client's Interim QA director for a twelve month period. Job titles and descriptions were put into place for members of the client's QA team. These resources were reorganized and placed into projects accordingly. In addition, a process was put into place that allowed team members to prepare for, and ultimately take, an ISTQB Foundation Level certification. This process brought the team to industry standard levels. Also, the Interim QA director made a reference library available for the QA team so that they would have easy access to informational guides and resources.

In that time, the DeRisk IT resources assisted in the transition of waterfall to Agile methodology across the entire Product Development department. The objective of the transition was for the designers, developers, and testers to all work collaboratively in increments to create working software. The defect backlog housed in HP's Quality Center software underwent triage, cleanup, and prioritization, and the fixes to these defects are now addressed each sprint. Despite being offsite, the DeRisk IT testers were able to maintain the constant communication necessary in an Agile project through phone calls, instant messaging, and emails with the onsite team. DeRisk IT testers also joined the daily scrum meetings through conference calls, and used Microsoft Lync to view the computer screen shared by the scrum master. The DeRisk IT testers picked up tasks in each sprint, and wrote and executed test cases based on these assignments. These iterations produce frequent pieces of functionality, instead of a massive, high-risk release at the end of a project. Due to the project's increased productivity from transitioning to Agile, the client asked for and received an additional fourth tester from DeRisk IT.

In addition, a full manual regression suite of the existing software application was put in place and is now being executed once per release cycle. Previously-written test cases that covered certain functionality were compiled into a regression suite. New test cases were then written by the DeRisk IT testers to fill in any gaps in coverage. These functional tests have been instrumental in uncovering any new defects introduced by fixes or enhancements to the software.

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After the twelve month contract ended, the Interim QA director suggested that the client does not need a QA director for projects to continue to run smoothly. Instead, the client was able to move to a system involving one Project Development manager overseeing design, development, and testing. DeRisk IT testers were still utilized after this transition.

DeRisk IT testers were able to participate in testing multiple projects for the client. One project was the creation of a web-based application that allows nurses to view a resident's record, allows physicians to prescribe medications and treatments, and other key functionalities of long-term care. Another project implemented the changes to the Multiple Procedure Payment Reduction (MPPR) provision of the American Taxpayer Relief Act (ATRA) of 2012, which reduced the rate for Medicare Part B payments. These and other projects, along with regression testing, allowed DeRisk IT testers to gain valuable experience in the healthcare field.

In total, there were 45 days in which at least one DeRisk IT tester worked onsite at the client's facility at no additional cost to the normal rate. Over the course of 18 months, the four DeRisk IT testers found a total of 373 defects.

