

Functional Testing of a Healthcare Information System

"We have enjoyed working with your experts alongside with the development team and cannot imagine better interaction to ensure the two processes go hand in hand timed so precisely and with best results."

Gerd Steinhof
Project Manager

Customer

The client is one of the leading consulting service providers in the country offering marketing consulting in different fields, including healthcare industry.

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| Company | <i>Consulting Services Provider</i> |
| Country | <i>Austria</i> |
| Business Domain | <i>Health Care</i> |
| Services Used | <i>Complex Testing</i> |
| Cooperation Model | <i>QA Outsourcing for a Development Company</i> |
| Duration | <i>1.7 years</i> |
| Efforts | <i>29 man-months</i> |

Project

The customer required a new software solution to substitute for a desktop application which dealt with pharmacy information. The old application allowed processing drug information, interacting with other medical institutions, viewing pharmaceuticals information, but it could not monitor changes worldwide or analyze patient data.

The customer's objective was to offer world-class services in the healthcare industry through the Internet. The software was to allow creating medical advice for patients, storing drug information, processing interactions and using international standards of pharmaceutical object classifications. Users of the new system (doctors, patients, consultants, authors of medical records, etc.) worked separately, but the results had to be stored systematically and used in medical analysis.

Challenge

The customer carefully selected the team to implement the project. From the very start they realized the necessity to assign QA and testing tasks to a third-party QA team to meet the project schedule and obtain a thorough and independent effort.

Replacing the previously used Windows application with a new and more user-friendly customizable web application was an ambitious goal that required close cooperation between the remote development and QA teams.

Solution

Testing activities started in the initial phase of the project lifecycle and included the following procedures:

- Development of test documentation (test scenarios and test cases)
- Functional testing (automated and manual solutions)
- Web services testing (automated approach)
- GUI testing
- Performance and stress testing

During quite a short period of time about 1500 defects and enhancements were found, reported, and fixed, which significantly improved the quality of the application.

Cooperation with a remote development team

Working in cooperation with an independent development team required an excellent communication strategy that could easily ensure reliable and effective interaction and guarantee the end-product quality. To foster the collaboration, we used various communication channels (e-mail, phone, VoIP and web paging software).

Technologies used

Automation tools: Silk Performer (performance and stress-testing tool), Rational XDE Tester (web service testing automation software)

Defect tracking system: IBM Rational ClearQuest (including Rational ClearQuest Web)

Success

- The flexible working scheme offered by A1QA allowed the customer to make changes to the system during development and monitor the system progress.
- A full set of structured testing documentation was developed by the QA team (testing results, final reports, and quality estimation).
- The customer managed to avoid redevelopment costs due to timely feedback from the QA team.
- The customer limited its participation in the project to overall progress control because the transparency of the testing process made it possible for the team to resolve all major problems and arrange the fixing process independently.