

Complex Testing of a Community Portal

Customer

The customer is a software development company that develops private online communities.

Company	<i>Software Development Company</i>
Country	<i>UK</i>
Business Domain	<i>Community Portals</i>
Services Used	<i>Functional, GUI, Cross-Browser Compatibility, Security, Load and Stress Testing</i>
Cooperation Model	<i>QA Outsourcing for a Development Company</i>
Duration	<i>10 months</i>
Efforts	<i>4 man-months</i>

Project

The idea of the project was to create an online, interactive community portal filled with customers and stakeholders all dedicated to the mission of helping businesses succeed by bringing together innovations and ideas. The main objective of the customer was to create a portal to use it as a basis for portals development in different kinds of businesses (hotel brands, health care and so on).

Challenge

The major challenge of the project was to create an integrated “anytime–anywhere access” platform for information delivery, communication and collaboration. The idea was to consolidate within one community portal a number of advanced social networking features, such as meetings and interaction with the community members, moderated conversations, live online workshops, multimedia exchange, tools for surveying and analysis, etc. The customer together with his team worked out detailed project requirements, covering the system functionality and user interface.

One more project goal was to support thousands of participants taking part in activities of different types.

Within the challenge of the project A1QA defined the following tasks:

1. To ensure the compliance of every project module and function with customer requirements and expectations.
2. To perform functional testing during the project development.
3. To execute stress and load tests to allocate all possible issues concerned with the system productivity.

Solution

Based on the project requirements, our QA engineers created a wide range of test cases covering the user interface and the work of the project functionality under normal and urgent conditions, and executed the tests according to these test cases along with the project development.

To prevent any problems being hidden, to efficiently get the necessary information, the QA team worked very closely with the development team and the customer by different means of online communication.

As the portal was designed to have a large audience, our QA engineers checked the basic security cases to avoid the most common types of attacks and vulnerabilities, such as SQL, XSS injection, etc.

To guarantee that the application worked correctly on different browsers, we also performed cross-browser compatibility testing.

As the project was a long-term one and the functionality was implemented gradually, the QA team had to run positive tests periodically to make sure that new

features, fixed defects did not affect the existing functionality of the project. To optimize time efforts spent on these tests, we automated the execution of the most popular test scenarios by means of the Selenium tool.

Stress testing was executed to determine how many users could be simultaneously handled in the application environment without denial-of-access errors and with normal page-load time.

Load testing was run to provide the customer with detailed information on how the environment handles a specific load of users.

Technologies Used

Operating systems: Windows XP

Browsers: Internet Explorer 6, 7, Firefox 2, Opera 9, Safari 3

Security tools: WebScarab, Paros, Rational AppScan, Acunetix WVS Scanner

Automation tools: Selenium, Windows/Visual Studio 2005 Team Edition

Defect tracking system: Jira

Success

The data obtained through testing as well as close and consistent cooperation between the QA team, the development team and the customer made it possible to produce a high-quality system that meets the defined requirements and expectations.