Methodology for CaptureIn testing

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"Nowadays consumer demands for quality is increasing continuously, and companies which take the first place in the market are those which are able to offer appropriate services. Therefore we would like to thank our partners from the University of Latvia for solving the problem with CaptureIn testing. Approaches and methods provided by them helped us to increase the quality of the product."

Sandis Kolomenskis

DPA Advanced technology centre SQUALIO, Member of the Board

FAST FACTS

Country or Region:

LATVIA

University:

UNIVERSITY OF LATVIA (LU)

Business partners:

- DPA Advanced technology centre SQUALIO
- Relative CC

Area of UBC:

- RESEARCH & DEVELOPMENT

Project start date: July 2013

Project end date: On going

Keywords:

- Software development and testing.
- New product development.
- Authentication solutions.
- CaptureIn.
- IT security.

PROJECT SUMMARY

CaptureIn is a unique authentication technology developed by Relative CC. This solution is intended to completely replace passwords in the online environment. The solution works with any Windows Phone 8, Android (v2.3. or newer) and iPhone (iOS 7 or newer) smartphones and does not require any additional devices, equipment, or investments. Upon opening any of the systems that supports this solution, the user does not enter a username and password, but instead, uses the CaptureIn mobile application to scan the CaptureIn QR code on the computer screen and thus accesses the necessary system.

In the cooperation between SQUALIO and the Univerity of Latvia there was a unique testing methodology created and appropriate testing provided to develop and test the CaptureIn solution.

CASE STUDY IN DETAILS

Project Background and Needs

Nowadays there are a number of theoretical methodologies available for software testing. Each methodology is designed for a specific purpose and has its relative advantages and disadvantages. In the real life we have to face the reality, that each software development project is different and has its own targets and purposes - especially if it is not just a software development, but the process of creating the next generation technology. CaptureIn had specific testing criteria and re-testing requirements and it was an opportunity for the specialists from the University of Latvia to use their academic knowledge and for the SQUALIO specialists to expand their professional knowledge while creating a completely new methodology and formulating the right test approach for the developed solution.

Project Solution from University's Side

Traditional software development methodologies work with the following condition - software requirements remain constant throughout the project. With increase in complexity, the requirements continuously change, which makes it difficult to use traditional methods and forces to make new approaches. The CaptureIn project proved that there is the necessity and shortage

Key Objectives:

- To create the testing methodology usable for both: study and business.

- To provide appropriate testing for the developed solution.

Lessons learned:

- It is more useful to modify an existing test method or to develop a new one all together, rather than to keep using the same established method over and over.

- It is useful to bring together business and academic representatives to think outside the box.

of new approaches in software testing field, which would correspond to growing business needs.

Project Solution from Partner's Side

Software products where requirements are clearly defined and stated beforehand can be easily tested using traditional methods. CaptureIn as a solution was built to solve the password problem in the unpredictable online environment. On the one hand the solution has no geographical borders, no language barrier, no restrictions in usage or implementation, it can be easily integrated into existing systems, but on the other hand it is complicated cloud based solution, which requires cloud computing technologies for its testing, therefore the testing of this solution became a real challenge for the test team.

Achievements and Impact

As a result of this cooperation new methodology and the right test approach for the developed solution was created and appropriate testing provided.

Quantifiable Outputs

- New software testing methodology.

- New learning resources.

CHECKLIST OF PREREQUISITES TO SUCCESS

Formal aspects

- Clear roles and responsibilities are defined for University.

- Clear roles and responsibilities are defined for Partner(s).

- Project partners have agreed on specific deliverables to be produced as a result of the co-operation.

- Project is related to at least one strategic priority of the University.

- Project is related to at least one strategic priority of the Partner(s).

Financial and/or Infrastructure aspects

- Co-operation Partner gains non-monetary but measurable and verifiable benefits from the project.

- Co-operation Partner invests infrastructure and/or material type (in kind) resources in the project.

- University gains non-monetary but measurable and verifiable benefits from the project.

- Co-operation Partner gains non-monetary but measurable and verifiable benefits from the project.

University profile:

The University of Latvia with its 15,000 students, 13 faculties and more than 20 research institutes is one of the largest comprehensive and leading research universities in the Baltic States. The University offers more than 130 state-accredited academic and professional study programmes. At University of Latvia, research is conducted in over 50 research fields which represent four main areas of inquiry: the humanities, sciences, social sciences, and education sciences.

Human capital aspects

- University is devoting its human capital, know-how, competence to the mutual cooperation, specifically, academic staff, and R&D students.

- Co-operation Partner is devoting its human capital, know-how, competence to the mutual cooperation.

Marketing and communication aspects

- Not applicable.

For More Information

For more information about the case study contact Ivita Reidzāne on ivita.reidzane@dpa.lv

For more information about the project "FROM BRIDGING TO SUCCEEDING. University and Business Co-operation Through Success Stories." and for more case studies visit www.university-business.net

For more information about the Nordplus Horizontal programme visit www.nordplusonline.org

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