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The Magazine for Professional Testers

Security Testing

Wanted: Technical Test Analysts

by Erik van Veenendaal

Security Testing

Security testing is a relatively new topic to me, but one that is becoming more and more important in today's internetbased society. Having studied the techniques and tools available for security testing during the last month, one thing became very clear to me: It requires extensive technical know-how and skills. It is not that difficult for someone with networking and/or programming background, but a domainbased tester will have difficulty in performing security testing and using the tools. This brings us back to a very fundamental discussion: "What is required to become a professional tester?". "Does a programming background help in becoming a better tester?". In the past the gurus have shown to be in disagreement on this. Having been a programmer myself, I have always found it to work to my benefit. It is easier to understand where defects can be found, it is easier to see technical risks and, of course, it is easier to communicate with a developer. In fact, most developers will take you more seriously if you are able to speak their language.

Agile development

With agile development becoming more and more popular these days, many are doing their stand-up meetings, 4-week sprints, developing user-stories etc. This also changes the role of the traditional test analyst. Within agile development, the role of a test analyst is often characterized by the following tasks:

1. Offer the business analyst support in making test cases

2. Offer assistance to preparing unit tests

3. Participate in design, code and test case reviews

4. Provide pro-active feedback

5. Develop and execute system test cases

6. Build automatic regression test suites

7. Make notes for retrospective meetings

Note that no less than three of these tasks (2, 3 and 6) require extensive technical knowledge. A tester that wants to survive in an agile team must understand unit testing, coding and have some knowledge of test automation. In agile projects, I see many so-called domain-based testers, who are not performing adequately in such an environment.

Test consultancy

Where a few years ago the focus for test process improvement was almost always on improving the system test and/or acceptance test, we nowadays encounter more and more clients who understand that if you want to improve testing, a thorough unit and integration test are also needed. To only improve the higher test levels is much less efficient. Also, different types of defects will be found by unit and integration testing, making the test process more effective. With this in mind, a test consultant needs to also be able to consult developers on improving their testing. Extensive knowledge of structure-based techniques and tooling such as dynamic analysis, static analysis and, of course, unit test frameworks are requirements for the 2009 test consultant.

The Technical Test Analyst

As a result of a number of trends, I see a need for testers with substantial technical background. Security testing has already been mentioned, but also testing other non-functionals such as reliability and performance requires technical skills. Agile development and the different focus of many test improvement actions are also important drivers for requiring more technical test professionals. The ISTQB Advanced Level scheme offers a complete 5-day module on technical testing which may seem irrelevant to many testers today, but I'm convinced will become more and more important to the testing professional in the near future or even already today.

I'm off to my daily scrum meeting, and will be reviewing a set unit test cases thereafter …….

Erik van Veenendaal is a leading international consultant and trainer, and recognized expert is the area of software testing and quality management. He is the director of Improve Quality Services BV. At EuroStar 1999, 2002 and 2005, he was awarded the best tutorial presentation. In 2007 he received the European Testing Excellence Award for his contribution to the testing profession over the years. He has been working as a test manager and consultant in software quality for almost 20 years.
He has written numerous papers and a number of books, including "The Testing Practitioner", "ISTQB Foundations of Software Testing" and "Testing according to TMap". Erik is also a former part-time senior lecturer at the Eindhoven University of Technology, the vice-president of the International Software Testing Qualifications Board and the vice chair of the TMMi Foundation.