



FOSS in QA

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Introduction

- Free and Open Source Software (FOSS)
- FOSS community
- Personal value in FOSS strategies
- FOSS coverage in Software Life Cycle
- New thinking in IT businesses
- Proprietary software → FOSS



The importance of QA

- Product complexity
- System (application) bugs
- Quality Assurance through Testing
- Difficulties in Manual Testing



Software Developers and QA

- Software Engineer's habits
- Ignoring QA cycle
- Reluctance in accepting bugs in the code
- Hiding bugs
- Dispute between Development team and QA team



A boring Repetitive Task

- When to Start/Stop Testing?
- Test all use cases at each bug fix
- Continuous & repeated testing
- Getting bored
- Automated testing



QA Automation

- Positive and negative tests
- What aspects of QA should automate?
- What are the approaches?
- Front-end testing with Selenium



FOSS initiatives in QA

- Commercial approaches
- FOSS approaches
 - **OpenQA**
 - **Open Source Testing**



Selenium as a FOSS tool for QA Automation

- Selenium IDE
- Selenium Core
- Selenium RC
- Selenium User-Extensions
- Selenium Community



Selenium IDE

- Complete IDE with
 - Recording facility
 - Auto completion facility
 - In line edit facility
- Ideal environment for creating Selenium tests for any style of tests.



Selenium Core

- A test tool for web applications
- Runs tests directly in a browser
 - **Internet Explorer, Mozilla and Firefox on Windows, Linux, and Mac OS X.**
- Applications
 - **Browser compatibility testing**
 - **System functionality testing**
- Written in pure JavaScript/DHTML
- Copy into web-server and run



Selenium RC

- Write tests in your favorite programming languages
- start/stop/control any supported browser
- Send commands to RC as HTTP GET/POST requests
- Wrapper objects for Java, .NET, Perl, Python, and Ruby
- Acting as a client-configured HTTP proxy
- Supports continuous Integration



Extendibility

- Selenium is a powerful tool
- But, cannot support all custom features
- User Extensions
- Contributed User Extensions in wiki
- Community
 - Forums, Wiki, JIRA (Bug tracking)



Conclusion

- Open source solutions lead the industry
- FOSS catches up Software Quality Assurance faster
- This is a good opportunity to explore



Thank you
Q&A