

Case Study

Test Automation using SoapUI and Selenium WebDriver with GIT and Bamboo Integration

SNAPSHOT

Solution Group:	Testing Services Group
Solution Offering:	Soap UI and Selenium scripts
Project name or title:	Web services testing using Soap UI and creating new Selenium scripts.

CLIENT PROFILE

Client is a Sydney-based technology consulting organisation with a strong focus on software development. Their consultants are IT professionals who appreciate how technology and business should work together to achieve desired outcomes. The consultants have exceptional technical skills, business acumen, and entrepreneurial spirit. They have access to a diverse range of technologies and businesses capacity to respond to clients' needs. They aim to provide an environment that offers new challenges for personal and professional growth.

BUSINESS SITUATION

The client had developed back-end application for Email Notifications and scheduling with the help of Amazon web services. We test REST based Web services we used SoapUI.

On the other hand client had developed front end application called Widget in java in health domain. The application was a search engine for various health related organizations located in various cities in Australia. Automation scripts were developed in Selenium Web driver to test the application.

TECHNICAL SITUATION

Below was the technical situation and need of the client

- The client was using soapUI Pro, so they wanted the automated scripts for testing the Rest web services using SoapUI.
- Selenium web driver was used to create scripts for front end application.
- The client was using Git as central repository; all the scripts were to be linked to this repository for future reference.

- The client had Continuous Integration & Deployment Software called Bamboo which is used continuous integration for developers as well as testers scripts. Bamboo was linked to the repository of the latest automation scripts and these scripts were scheduled, so they run every day on the latest code and email the test report to the responsible owner.

SOLUTION

Adactin implemented the following solution and processes:

Phase 1- Interacting with the business and development team

- Interacting with the business analyst to get to know the application and the requirement discussion.
- Interacting with the developers to get to know the Service End Points used in Amazon web services and testing strategy.
- Asking developers for creating the test job for testing scheduling and test email id approved by Amazon for testing emails and Notification.
- Analysis of front end application for developing the scripts using Selenium Webdriver.

Phase 2-Creating the SoapUI scripts

- Writing the functional test cases.
- Getting approved by the business analyst.
- Analyzing the SEPs and using them to create the rest services for the project.
- Creating scripts and adding the assertions according to the test cases.
- Linking the test cases with the requirement.

Phase 3-Linking the SoapUI scripts with the Bamboo

- Setting up the Plan in Bamboo.
- Linking the Plan with the soapUI scripts repository.
- Scheduling the Plan for every day.
- Bamboo will automatically sync with the repository ever time the script is changed and check-in to the repository.

- Test report is emailed to the developers and the testers.

Phase 4-Creating the Selenium scripts and linking with Bamboo

- Writing the functional test cases.
- Verified the test cases by the business analyst
- We used Selenium Webdriver for creating the automation scripts for frond end application.
- Making the Plan in Bamboo for these scripts to run on the latest code of the developers.
- Scheduling the execution of scripts every day.
- Test report is emailed to the developers and the testers after every day automatic execution.

BENEFITS

Find below benefits of technical solution proposed to the client

- Web services testing of the application before integrating with the front end gives the developers confidence for SIT
- Automation Regression Testing for all functionality save 40% time of testing
- Bamboo setup helps the developers to track the recent test results without any human interactions.

PRODUCTS AND SERVICES WE USED

- OS- Windows2007
- Soapui Pro- Tool for Web services testing
- Git Repository– is a full-fledged repository with complete history and full revision
- Selenium Webdriver- Automation Tool
- Bamboo- Continuous Integration (CI) server

Adactin is a premium Australian software consulting company dedicated to excellent software development and testing with a comprehensive service suite encompassing quality assurance, design and development services, data analytics products and other digital transformation enterprise solutions including quality ICT training programs. The company has a core competency and thought leadership position built around the science of IT development and testing application development.

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