OPTEAMIX

Behavior Driven Test Automation to Help Accelerate Testing for a Financial Services Firm

Client

The client is a global provider of innovative money transfer and payment services headquartered in the United States. Their services include money transfers, bill payment solutions, and money order services that are provided to individuals and businesses through a network of agents and financial institutions.

Challenges

The client wanted to leverage automation as a testing strategy to increase the productivity and efficiency of the testing team. Given that Opteamix had implemented Agile methodology for the execution of the project, there was a need for multiple releases of the product using efficient, short development cycles while reducing the issues discovered during user acceptance testing.

In addition, the client also wanted to reduce the time to market by limiting multiple test cycles and reduce the overall costs of maintenance and test operations. The client's requirement was to perform regression testing on the functionalities utilizing minimal effort, and in a short period, using an opensource framework.
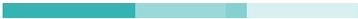
Solution

Opteamix implemented Behavior Driven Testing (BDT), which is an intrinsic part of the Behavior Driven Development (BDD) approach for the execution of this project. The goal of applying BDT was to create a human-readable and domain-specific language based on english statements that facilitates describing a system's behavior. Test cases illustrating business scenarios, are written in plain english text before development and verified by business users.

Opteamix implemented a proprietary BDT-based test automation framework built on the open-source Selenium framework, as it would achieve the client's objective and requirements at an optimized cost. The process framework was adapted to execute the test automation suite as a part of regression testing. The framework was built using Selenium web driver, and the development of the test scripts was done using Groovy, Cucumber and Apache ANT. The test automation suite also included customized XSLT reports with a test execution status dashboard. The dashboard consisted of the percentage and count of successful, unsuccessful, and unexecuted tests.

Value Delivered

The client realized the benefits of the test automation framework right from the first testing cycle after the framework was rolled out. Some of the benefits are listed below:

▷ The functional testing effort reduced by almost 60%.

▷ There was an 80% reduction with respect to effort and cost of running each regression test cycle.

▷ Since an open-source framework was used, there was no additional cost in obtaining the required components to set up the framework.

▷ Low maintenance costs of test cases due to increased reusability of testing cases.

▷ Faster execution of tests which helped reduce the time required for new releases.

▷ Test suites were executed more often in the given intervals with multiple sets of test data for the same feature.

▷ The QA Team executed critical scenarios early and identified defects at the beginning of the release.

▷ The development team gained a greater understanding and appreciation of the business and the product quality improved with every release.

About Opteamix

Opteamix is a digital automation technology consulting firm with deep expertise in Application Development, Robotic Process Automation, Artificial Intelligence, DevOps, Enterprise Mobility, and Test Automation Services. We are headquartered in Denver, Colorado with a wholly-owned delivery center in Bangalore, India.