

Accelerated Time-to-Market through QA Automation for Large Regional Bank in the U.S.

Client Overview

The client is based out of Boston, Massachusetts and is one of the oldest and largest mutual banks in the United States and the largest community bank in Massachusetts. The bank offers comprehensive products and services for personal, business, and commercial banking, financial, and insurance needs.

The Business Situation

The client has been modernizing their digital customer experience and have upgraded their mobile and internet banking to enhance user experience. However, testing of these solutions consumes significant time and effort with every iteration, leading to delays in time-to-market and increase in costs. The client required a comprehensive solution integrated with CI/CD that would help automate and monitor the quality assurance process.

The Solution

GS Lab | GAVS architected and built an end-to-end Quality Automation Framework on Selenium designed to improve test efficiencies and lower the costs incurred due to maintenance of testing scripts in a single repository. The automation framework that is integrated with CI/CD maximizes test coverage for all application and testing types while requiring minimal manual intervention. The solution also enhances reusability of code with easier and faster ways to generate scripts. Test cases can be executed with multiple sets of data. Test data and validation data are separated from the test case logic, ensuring that changes to test cases do not affect the data. Data-driven testing can be performed during any phase, and the framework is capable of accommodating large volumes of random test data. The entire process can be monitored through a centralized dashboard.

Challenges

- Delays in introducing new and refined features to the market
- Significant time and effort spent on regression testing
- Unstructured approaches to test case/test data creation and execution
- Increasing costs due to process inefficiencies

Solution Highlights

- Architecture and development of end-to-end Quality Automation Framework for:
 - Penetration testing
 - Performance testing
 - Regression testing
 - Integration testing
- CI/CD integration
- Centralized dashboard for monitoring
- Support for microservices and mobile, web, desktop applications

Solution Outcomes

- 50% reduction in costs of quality assurance with automated scripts
- 75% acceleration in time-to-market
- Lowered costs incurred due to maintenance of testing scripts in a single repository
- Reduced test execution time with parallel execution enabled
- Seamless integration with any new environments installed for specific products/projects