Improving Release Quality and Speed with Scalable AI-Powered QA Automation

Challenge

A Fortune 500 professional services organization delivering audit, consulting, advisory, and tax services needed to address growing quality and release challenges within its global core audit platform. The application was being developed by fourteen distributed teams across India, the Americas, and Europe.

Manual regression testing and end-to-end business flow validation were increasing exponentially with each sprint, frequently delaying production releases. A lack of standardized testing practices and limited visibility into critical system flows led to quality issues reaching production environments.

The client required a scalable QA automation strategy to reduce regression effort, improve release confidence, and establish consistent quality controls across its globally distributed development teams.

Solution

INSPYR Solutions partnered with the client to design and implement a comprehensive QA automation strategy integrated directly into the product's continuous delivery workflows. Key components of the solution included:

- **Embedded QA Automation Model:** Placement of a QA automation engineer on each development team to ensure testing alignment with feature development.

> With AI-powered QA automation, releases became faster, more reliable, and consistently aligned with business goals.

- **Centralized Automation Leadership:** Coordination by a dedicated automation lead responsible for defining standards, prioritizing critical system flows, and aligning automation efforts with product management.

- **End-to-End Test Coverage:** Development of automated routines covering functional testing, regression testing, end-to-end business flows across multiple applications, and API-level integration testing.

- **CI/CD Integration:** Full integration of automated test suites into Azure DevOps pipelines, enabling daily validation of application integrity and immediate feedback when quality thresholds were not met.

- **Standardized Automation Framework:** Implementation of a unified automation strategy to ensure consistency and reusability across all teams.

The solution leveraged industry-standard AI-powered automation tools, including Tricentis Tosca and Selenium, to support scalable and maintainable test automation.

Outcome

The QA automation initiative delivered measurable improvements in quality, speed, and reliability:

- **Automation Coverage:** 45% of regression testing was automated, significantly reducing manual testing effort.

- **Quality Improvement:** Production defects were reduced by 35%.

- **Release Confidence:** UAT and production release integrity checks are now driven primarily by automated test routines.

- **Delivery Efficiency:** Faster, more predictable release cycles enabled by continuous quality validation.

Client Profile

The client is a Fortune 500 professional services organization with more than 400,000 employees worldwide, delivering audit, consulting, advisory, and tax services across global markets.

Technologies Supported

Microsoft Azure, Tricentis Tosca, Selenium.

About INSPYR Solutions

Technology is our focus and quality is our commitment. As a leading expert in delivering flexible technology and talent solutions, we strategically align industry and technical expertise with our clients' business objectives and cultural needs. Our tailored offerings include a wide variety of professional services, project solutions, managed services, and talent resources, all bolstered by our strategic partnerships with cutting-edge technology services. By always striving for excellence and focusing on the human aspect of our business, we work seamlessly with our talent and clients to match the right solutions to the right opportunities. Learn more about us at www.inspyrsolutions.com.