



Improving Quality and Reducing Cycle Times with Advanced Test Automation for a Major Airline

Challenge

In an industry where competition is fierce and customer expectations are always shifting, a leading airline was struggling with lengthy development cycles that hindered its ability to quickly release new features. To remain competitive and meet business demands, the airline needed to significantly reduce its time to market for new software features while maintaining or improving quality. The client approached INSPYR Solutions to address these challenges.

The airline's traditional development process was heavily reliant on manual or basic automated testing, which was time-consuming and often led to delays in identifying and fixing defects. This manual approach not only slowed down the development cycle but also increased the risk of defects making it into production,

potentially impacting customer experience and operational efficiency.

Solution

The implementation process was carried out in several phases. INSPYR Solutions conducted a thorough assessment of the existing development process and identified key areas for improvement. Our team created a detailed implementation plan outlining the steps required to integrate automated testing. The team then set up the automated testing framework and integrated it with the existing development tools. This included selecting the right testing tools, integrating into the CI/CD pipeline, and establishing test scripts. A pilot project was conducted to validate the effectiveness of the automated testing framework. This helped in fine-tuning the setup and addressing any initial challenges.

The time required to develop and release new features was reduced by 65%.

After successful pilot testing, the automated testing framework was rolled out across various development projects. Continuous monitoring and optimization ensured the framework's ongoing effectiveness.

The primary objective was to introduce a new approach to automated testing to accelerate the development cycle, catch defects early, and improve the overall quality of the software. The client aimed to:

- **Reduce** the time to market for new features.
- **Improve** defect detection and resolution efficiency.
- **Maintain** or enhance software quality.

Leveraging our expertise in automated testing, INSPYR Solutions implemented a comprehensive strategy. We introduced a robust automated testing framework that encompassed various types of tests, including unit tests, integration tests, and end-to-end tests. This ensured that all aspects of the software were covered.

We adopted a shift-left testing approach, integrating testing activities early in the development process, even before the application was compiled. This allowed us to catch defects at the earliest possible stage, significantly reducing the cost and effort required to fix them.

INSPYR Solutions integrated the automation into the client's existing CI/CD pipeline. This ensured that every change was tested thoroughly and deployed seamlessly, further reducing the development cycle time.

Outcome

The introduction of automated testing transformed the airline's software development process, yielding significant benefits:

- **Reduced Time to Market:** The time required to develop and release new features was reduced by 65%, allowing the airline to respond to market demands more swiftly.
- **Early Defect Detection:** Defects were identified and resolved much earlier in the development process, reducing the cost and effort associated with fixing them.
- **Improved Quality:** Comprehensive and consistent testing improved the overall quality of the software, leading to a more stable and reliable product.
- **Increased Efficiency:** The development teams experienced increased efficiency, as automated tests ran faster and more reliably than manual tests.

Through our partnership and the airline embracing automated testing, we successfully transformed the airline's software development process. The strategic shift to automated, early-stage testing enabled the airline to reduce development cycle times, improve software quality, and maintain a competitive edge in the fast-paced airline industry. Our work with this client exemplifies how innovative testing practices can drive significant improvements in time to market and product quality.

Client Profile

The client is a major airline in the U.S. that has a reputation for its reliable operations, great hospitality, thriving culture, and a loyal customer base. The company prides itself on providing great value through affordable fares and a large variety of options, as well as memorable experiences during thousands of flights every day. It has won numerous awards for customer satisfaction and is now working toward achieving net zero carbon emissions within the next few decades. The airline has also been on the leading edge of technology for many years through its website, apps, and more.

Technologies Supported

Chef, Cucumber, Cypress, Playwright, REST Assured, TypeScript

About INSPYR Solutions

Technology is our focus and quality is our commitment. As a national expert in delivering flexible technology and talent solutions, we strategically align industry and technical expertise with our clients' business objectives and cultural needs. Our solutions are tailored to each client and include a wide variety of professional services, project, and talent solutions. 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 inspyrsolutions.com.