FORSYS
Forward Thinking

90% Reduction in Production Functional Defects with Customization of Selenium QA Framework for Oracle Fusion Patching

Insight

A video delivery technology and services business wanted Oracle ERP Cloud Quarterly Patch Testing support to test the bug fixes in the new releases and enhancements.

Forsys customized the Selenium Quality Automation Framework (QAF), established industry-wide best practices in documentation and QA cycle management, and automated 90% of manual test cases. This resulted in 90% reduced functional defects in production, 40% eliminated manual work, and 50% minimized test cycle time.

Industry
Telecommunications

Revenue
$150+ M

Employees
1k+

Headquarters
California, US

Business Challenge

The client wanted the auto-upgrades to be applied to the non-production environment first to resolve issues & remove the business disruption risks.

The client realized the complexity of Oracle ERP Cloud auto-upgrade when it found that quarterly/monthly patches could be deferred only by a quarter.

The main challenges for the client were:

- Lack of knowledge about the features part of the “Opt-In Expiration” category in the upcoming quarterly patching process.
- Wanted support to test, analyze results, and raise issues with Oracle, if any, within 2 weeks.
- Shortage of integrated programs for non-technical users to execute test cases.
- Absence of testing expertise and knowledge.

Transformation Journey

Forsys in collaboration with the client, built an automation architecture and customized the Selenium Quality Automation Framework (QAF).

The key highlights of the approach to the solution are:

- Creation of a business environment and multiple integrated programs for non-technical users to ease the testing pressure.
- Developing high-level test scenarios and mapping them to test cases, and getting them reviewed and signed off during the design phase.
- Measuring the testing coverage in the high-level scenarios and reporting the findings at the end of each testing cycle.
- Execution of 200 test cases and the identification of 40 critical errors.
- Implementation of a new QA process for one complete software test life cycle (STLC).
- Providing pre-patch upgrade analysis to avoid any surprises during the application process or after.
- Creation of continuous testing processes to maintain and monitor logs.
- Designing reusable methods to avoid any functionality-related changes.
- Recognizing elements using ChroPath to avoid UI-related frequent changes.
- Maintaining the testing framework's availability for all Oracle modules (Finance, SCM, etc.)
- Providing support across different browsers and operating systems.

Impact

Since the go-live, the client:

- **Automated 90% of manual test cases.**
- **Reduced go-to-market time by 40%.**
- **Curtailed +90% of functional defects in production.**
- **Reduced 40% of manual tasks.**
- **Clocked +25% cost savings.**
- **Reduced test cycle time by 50%**
- **Improved product quality and wider coverage of testing areas.**
- **Validated Oracle Cloud quarterly patch upgrades faster & declined regression testing.**

About the Client

The client is an American video delivery technology and services business that enables media companies and service providers to deliver ultra-high-quality broadcast and OTT video services to consumers globally.

Solution Components

MANUAL

- Mobile Testing
- App Testing
- Functional Testing
- Airflow Testing
- Cloud Testing
- API Testing
- Functional Testing
- Regression Testing
- Compatibility Testing

AUTOMATION

- Selenium + JAVA
- Puppeteer
- Testim
- Docker, Kubernetes, Pycharm(Python)
- Circle CI, Notion, Grafana, CI/CD - Jenkins
- Appium
- Github