Test Automation Accelerates Global Reward Brand's Time to Market

Challenge

The business needed more commercial agility.

Manual testing processes hindered onboarding of new reward propositions especially across different channels.

Solution

Regression automation using robust and modular framework.

A mobile automation framework with parallel execution capability, requirement-test case – defect traceability and ability to extend usage for functional validation.

Results

Commercial acceleration owing to greater testing efficiency.

Automation cut down overall testing time by 75%. Test execution can be triggered by single command for CI/CD readiness.

Client overview

The Client is the retail rewards arm of a globally recognized and respected brand founded in 1970. With a group turnover of circa $22 billion, their core consumer sectors include: Travel & Leisure, Health & Wellness, Music & Entertainment, Telecoms & Media, Financial Services and Space.

Wanted: Automation of manual testing processes. Purpose: Commercial agility

The Client found their manual testing processes were hindering commercial agility. To fast-track new reward propositions, through onboarding to release to customers, they wanted better test capabilities. They also wanted to reduce costs, increase test coverage and future proof with their own staff to be able to easily setup, configure and run regression tests for themselves.

To achieve all this, they wanted to automate elements of their testing on both their mobile app and web application. They did not have the expertise in-house to suggest how they could implement toolsets for automation testing or how automated monitoring solutions could identify testing bottlenecks.

Three steps to test excellence at scale

Qualitest worked with the Client to build an automated testing solution that would accommodate mobile testing on both Android and

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on iOS platforms. An iterative process was planned with three clear phases:

1. Identifying the right framework

Qualitest engineers, automation test specialists and system architects undertook enterprise-level fact-finding into the Client's existing systems. In scope were business process, volumetric and system-usage information.

After several proof of concepts, Qualitest developed a robust automation framework to support their automation developments: Selenium Appium was chosen as the automation tools for this program. Automation scripts are checked out from code repository and built as part of pipeline script execution. Scripts are designed to identify and execute the pre-requisites test script(s) before triggering the actual regression run.

2. Regression run simplification

Simplification of regression testing involved removing manual operations and dependencies on the automation expert. A simple command triggers automation script checkout, build and executes test automation pack. On completion of the run, logs are set apart in their respective folders with evidence. All the pass and failed test scripts are captured along with the execution flow. The tool is user friendly, compatible, easy to maintain and requires no manual intervention during execution.

3. Parallel execution

All necessary steps were taken for the regression run to execute on multiple Android and iOS devices in parallel. Solution is platform independent and supports test execution from Windows, Mac & Linux OS . Parallel execution reduces test execution time. Scripts are Continuous Integration / Continuous Deployment ready.

Key benefits

- **Commercial acceleration –** Cut overall test time 75% for a significant improvement in time-to-market of new reward propositions.

- **Cost efficiency** – Cost-per-test significantly lowered with tests capable of quick successive runs.

- **Parallel execution** – Client now continuous and seamless delivery enabled with timely reporting and quick feedback made easy across various file extensions.

- **Compatibility test coverage** – Gained ability to ensure application works across various Android & iOS devices and OS versions.

- **Testing futureproofed** – A simple command now triggers regression test suite so anybody can run it globally with test logs stored safely but accessibly.

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- **Detailed automation test coverage** – The team can now test at higher speeds, begin to penetrate larger areas where automation has not been achieved and pinpoint bugs there faster.