Health Agency Uses AIQ to Test *Rapidly Evolving Salesforce-based Application*

Problem

A travel application for tracking COVID quarantine compliance was being updated daily. This agency's manual testing was unreliable and didn't scale.

Solution

AIQ's AI Blueprint replaced manual tests quickly. Test Designer supported script creation for specific test cases for this Salesforce-based application.

To learn more about AIQ please email us at info@appvance.ai

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At the start of the Covid pandemic, this European country initially responded by closing all its borders to outside visitors. But after a few months, it gradually began to lift these restrictions, allowing travelers from certain countries to visit under the stipulation that they follow a 14-day quarantine when they arrived.

To ensure compliance, the government also required visitors to register their travel online before their arrival and to isolate in government-approved hotels near their entry air- or seaport. In order to support this newly mandated process, the government's health agency developed a new application built on Salesforce.

Because the travel requirements and quarantine rules were updated almost daily by the government, the application had to be manually tested each day to ensure that the updates were handled appropriately. But manual testing was unreliable and did not scale.

Objectives

The health agency came to Appvance to see if we could help. They wanted to know if our patented AI-driven testing, our Appvance IQTM (AIQ) Blueprint, could adapt to the daily changes in the application characteristics and report accurately on issues found without generating false positives.

The team was not only looking to replace their inefficient manual testing process. As a government agency, their standards for testing can be stringent. The governance team mandated that certain key flows through the application needed to be scripted, and they provided very detailed acceptance criteria for these flows based on the regulations defined the department.

The solution they selected also needed to support this requirement to cover all their testing requirements.

Quick Facts

Industry
Government
Health Agency

Region
Europe

Applications Under Test
Custom Salesforce application

The AIQ Solution

AIQ was selected because the team determined that it could fulfill both needs, replacing their daily manual testing by using the AIQ Blueprint and AI-driven test generation, while also delivering the ability to script specific tests using the AIQ Test Designer module.

In just two days, the Appvance professional services team was able to train the AI to test the Covid Visitor Tracking application. The AI quickly yielded over 800 unique tests, more than 5 times the number of manual tests that were being executed. When the Machine Learning was completed a week later, the yield had risen to over 3,000 unique flows through the application that were being functionally, API, and performance tested.

The Appvance Salesforce Accelerator pack was used to create baseline training for the Salesforce app. The results were immediate. The AI identified dozens of errors that had not been caught by manual testing and found three critical areas of the application that were performing poorly. These were fixed quickly by the dev team using the comprehensive diagnostics provided. As each new build was delivered, the AI learned and adapted, providing daily smoke tests on the new and changed code.

Using the AI-powered AIQ Test Designer, more than 200 human-written scripts have now been developed. These scripts also run daily and use Appvance's unique Fallback Accessors and Self-Healing to adapt to changes in the UI without failing. This has driven the maintenance times down more than 50% for these scripts.

The testing program has worked so successfully that the agency is now expanding their usage of AIQ to handle other Covid apps created for case tracking, vaccine distribution, and testing appointments.

Key Results

Nearly 20x increase in user flows tested in just 2 weeks

50% decrease in script maintenance time

Daily functional, API & performance testing

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