



Case Study

Reduction in 40% Automation Costs with Shorter Test Cycle & Improved Test Coverage

Insight

A California-based prominent e-learning company produced training courses for different clients that were accessed via the web and mobile devices. Due to the unavailability of trained testers and inadequate training processes, their QA process lacked structure and required web, mobile and API testing support for numerous projects.

Forsys provided E2E manual and automated QA services including Web, Mobile and API testing using a wide range of frameworks, tools and devices. As a result, the client automated its QA platform, reduced the test cycle time, and improved test coverage and platform performance.

Industry
E-Learning




Revenue
\$400+ M

Employees
15K+

Headquarters
California, US

Business Challenge

The main challenges for the client were:

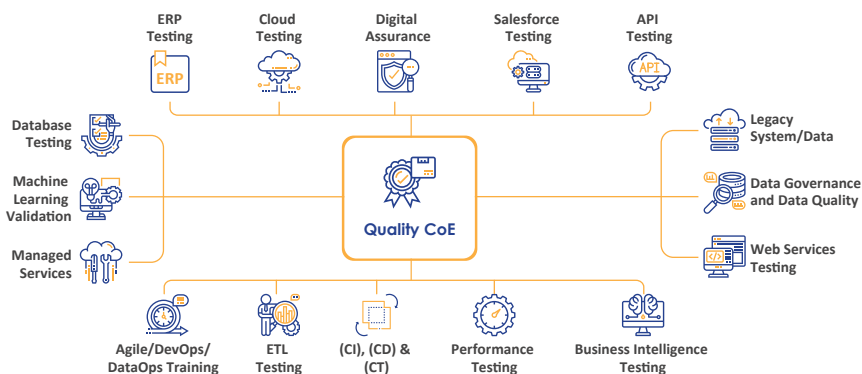
-  Lack of technical prowess in automated testing.
-  Execution of thousands of test cases.
-  Shortage of time for the in-house testing team to learn programming languages.

Transformation Journey

Forsys delivered end-to-end manual and automated quality assurance services to the client from 2018 onwards, including web, mobile and API testing for numerous projects. We leveraged a range of frameworks, tools, and devices to automate their QA platform, identify the challenges, create test case templates and structures, and improve test case maintenance.

The key highlights of the approach to the solution are:

- Leveraging Page Object Model (POM) framework for E2E testing.
- Developing initial templates and structure in the form of a POC to implement tests in the POM framework & reduce code duplication.
- Implementation of a test strategy and test planning documentation to adhere to ISTQB standards.
- Creation of a collection of tests as a regression suite using Postman to test APIs.
- Implementation of JIRA tracking to improve the end-to-end QA process.
- Improving test case maintenance with reusable utils and functions.
- Maintaining constant coordination with the development team to identify and execute scenarios with maximum test coverage.
- Embedding continuous testing within deployment pipelines to continuously develop and deliver.



About the Client

The client is a leading US-based massive open online course provider. Founded in 2012 by Stanford professors, the e-learning provider offers a range of learning opportunities—from hands-on projects and courses to job-ready certificates, career credentials, and degree programs – and partners with more than 200 leading universities and companies to bring flexible, affordable, job-relevant online learning to individuals and organizations worldwide.

75+ million learners, 100+ Fortune 500 companies, and more than 6,400 campuses, businesses, and governments access the client's world-class learning—anytime, anywhere.

Solution Components

Manual

- Functional Testing
- Performance and Load Testing
- API Testing
- User Interface Testing
- End-to-End Testing
- Integration Testing
- Compatibility Testing
- Smoke Testing
- Regression Testing
- Accessibility Testing

Automation

- Python
- Selenium + JAVA
- TestNG
- Protractor
- CI/CD - Jenkins
- Puppeteer
- Testim
- Appium

Impact

With Forsys, the client achieved their testing vision and automation goals confidently. Here are the notable benefits the customer gained.

- **Achieved 90% accuracy via automation.**
- **Removed >95% functional defects in production**
- **Lowered automation costs by 25-40%**
- **Reduce testing cycle time by >40%**
- **Streamlined requirement enhancement documentation to ensure maximum test coverage and accurate bug reporting.**
- **Streamlined test data gathering and defined process.**
- **Optimized Puppeteer to deliver the POM framework using JavaScript.**
- **Enhanced user experience across devices.**
- **Reduced test cycle time and improved test coverage.**
- **Improved time-to-market and platform quality.**