Beaufort Fairmont
AUTOMATED TESTING SERVICES™

CLIENT

The client creates products to help people express their creativity with handmade cards, paper-crafting, keepsakes, and home decor.

CHALLENGE

Implement better quality in customer-facing applications and better experience for customers. Guide the implementation of a DevOps process enabling faster delivery of software and satisfying customer demands.

BY THE NUMBERS

90% Code Coverage

900 Tests

31 Weeks

TECHNOLOGIES

.NET

C#

JavaScript

TypeScript

Selenium

Azure DevOps

Jest

Git

TestServer

Restful APIs

A CASE STUDY

Beaufort Fairmont partnered with the client to improve quality and speed of software delivery.

We assessed the client's goals, approach, practices, and personnel involved in software development and testing. Together, technical leadership and Beaufort Fairmont created a plan based on our recommendations for implementing faster delivery and higher levels of quality.

The new approach included training staff with courses in "Fundamentals of Testing", "Selenium in C#", and "Azure DevOps" through Beaufort Fairmont's customizable training offerings. Additionally, Beaufort Fairmont deployed a Dedicated Expert to guide implementation and mentor staff with the new DevOps process and skills.

Embedded with the flagship Scrum team, the Dedicated Expert implemented Beaufort Fairmont recommendations, including creating a gated DevOps pipeline to test, build, and deploy greenfield microservices and web UI.

Test automation used C# and NUnit for service-level testing. Shifting left, the team began creating test automation before the UI was built. This provided an almost instant feedback loop for developers as they finished tasks.

The approach created a fast-running suite of 900 tests. Deployment was gated automatically by the status of the tests. The tests covered 90% of the codebase.

Once developed, the team created tests in Selenium WebDriver in C# and lower-level tests with Jest in JavaScript for the UI.

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The Results

The client reached 90% code coverage across all services, never dropping below 73% in the first year. In 31 weeks, the team created over 900 tests. Often tests were created *before* application code was developed. ***Testing shifted left.***

Developers gained confidence. The tests determined whether developers' changes worked within minutes.

Previously, the team spent hours in planning meetings sorting through the details of user stories. Now, the team created acceptance tests that either passed or didn't. Product Owners watched tests execute. They knew if their user stories were implemented correctly!

Beaufort Fairmont's embedded Dedicated Experts mentored testers in pursuit of becoming automation engineers. All succeeded in becoming Software Development Engineers in Test (SDETs).

On release of the application, it recorded ***fewer defects than any release in 25 years!*** Further, when found, defects were quickly squashed as the team now had the ability to quickly represent the issue with a test and act on it. The team now deploys software <u>safely</u>, <u>quickly</u>, and <u>on demand</u>!

Call us now at 984.244.2313 and start deploying quality software, on demand!

ABOUT BEAUFORT FAIRMONT

Beaufort Fairmont is based in Cary, North Carolina, USA. We work with clients across the United States and in Canada to support, implement, and guide test automation and DevOps efforts. Learn more at beaufortfairmont.com.

CALL US TODAY AT **1.984.244.2313** TO LEARN HOW YOU CAN TAKE YOUR SOFTWARE TESTING PROGRAM TO THE NEXT LEVE

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