A Leading Financial Service Company Expedited Regression Test Cycle with Automation

Automation for Regression Test Cycle

A U.S based financial technology service company, who provides online payment services to growing businesses switched to test automation for a shorter regression test cycle in order to meet frequent releases.
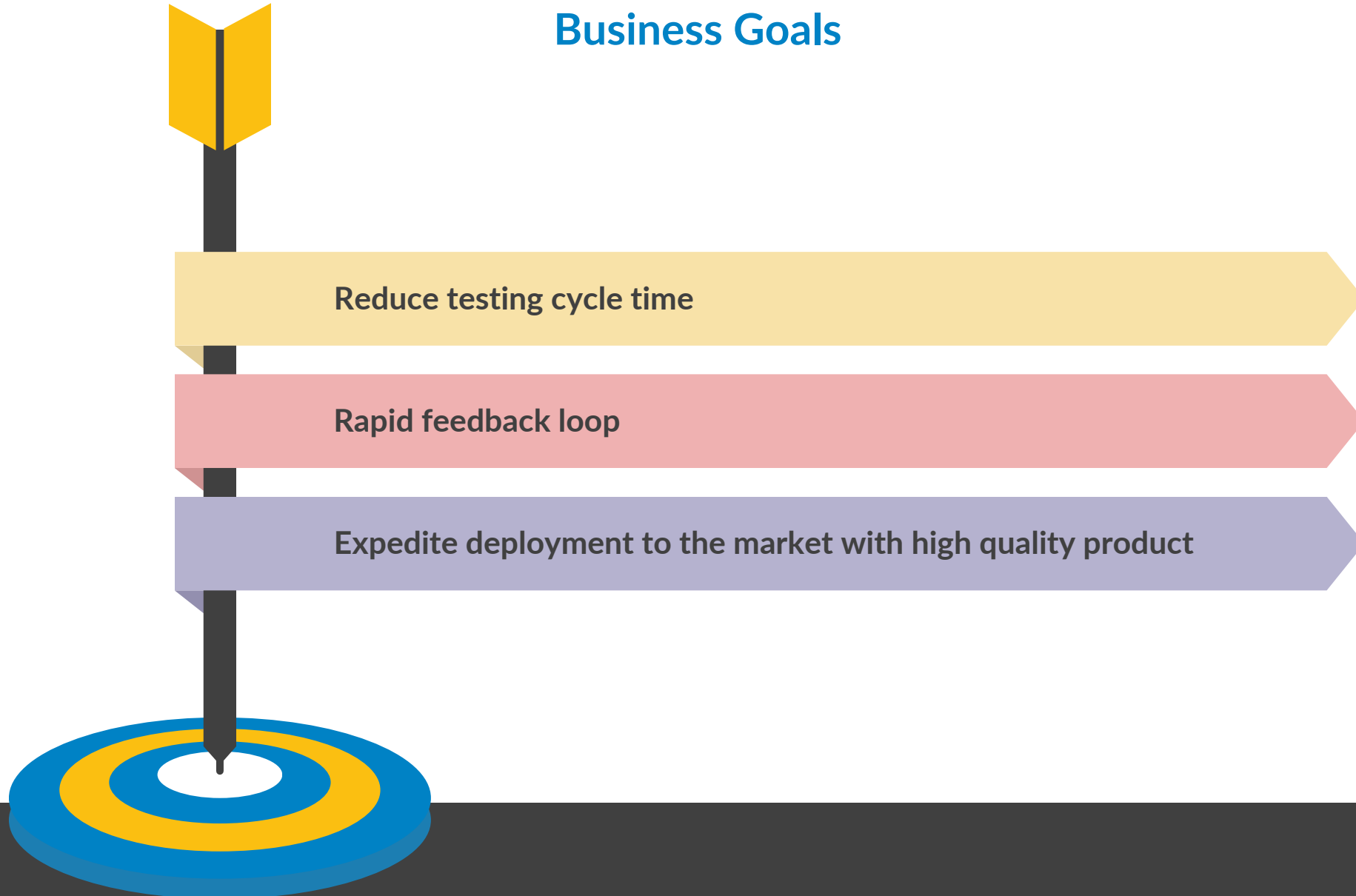
Problem Statement

Given our client's expertise in delivering digital payment services to a multitude of growing organizations, the demand for quality-proof frequent releases poses a challenge. The current erroneous manual operations not only impede meeting tight release schedules but also jeopardizes service quality in terms of overlooking critical steps or failing to identify potential issues. The client understood that this could be addressed by shortening the testing cycle with an effective strategy along with automation as its integral part.

Recognizing Zuci's testing capabilities and team expertise, they chose Zuci as their preferred partner.

Business Goals

Reduce testing cycle time

Rapid feedback loop

Expedite deployment to the market with high quality product

How Zuci Helped?

Zuci's automation team analyzed client's challenge and came up with a proposition of building a test automation framework that is both scalable and flexible to run regression test for both Web and API.

- We recognized the interdependency among several APIs required to complete a single transaction and created a framework to automatically send their responses to each other, meeting a key system requirement.
- Created a test Automation framework using Selenium and Nunit Framework, aligning with client's functional and business needs.
- Identified and managed changing input ranges/limits at a configuration level, enabling users to adapt as the business evolves.

- Developed reusable components, enabling automation suites to adjust to fluctuations and generate test data according to the application's requirements.
- Implemented multiple test categorizations for each test to facilitate the user to group and execute specific test cases.
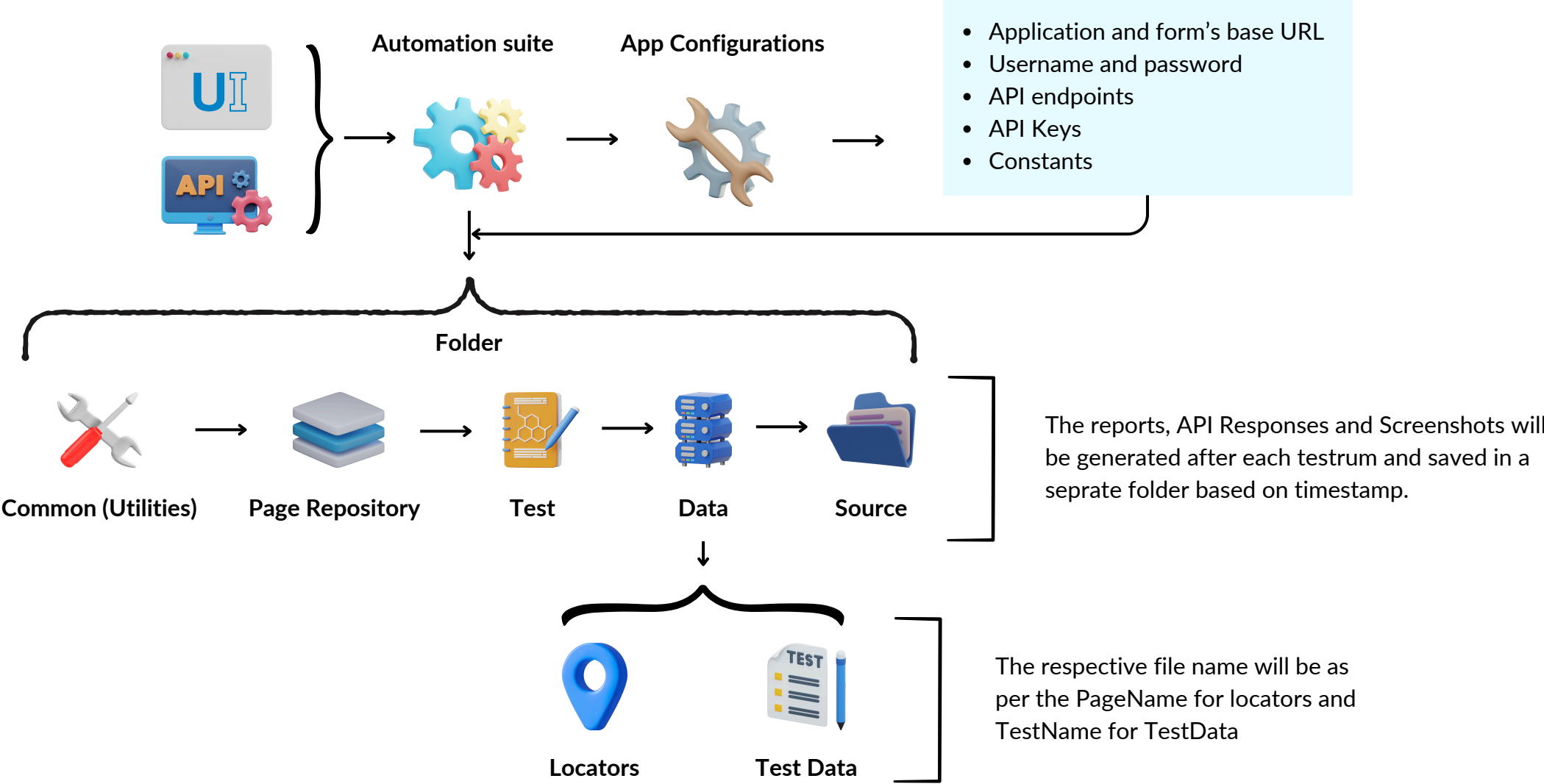- Successfully reduced the time required for the regression test cycle.

- Maximized log information and integrated it into Extent Reports for thorough test result analysis. Additionally, we improved failure screenshot names by adding Test Case ID, Test Name, and Timestamp for clarity.
- Maintained proactive communication with the client to minimize reworks and catch change requests early. Also, we suggested stability-enhancing ideas to boost automation efficiency.
- Automation increased efficiency and reliability in the testing and operation of the web application and its APIs.

"Zuci System team, with the leadership of Vignesh and support from Sujatha has met and exceeded our defined scope of completed automation of regression suites for Hosted Pay Form and Payments API in the designated timeframe. They have exhibited their commitment to deliver a quality automated suite, with professionalism, expertise, and efficiency." – Client's Lead QA.

Framework Structure

Automation suite   **App Configurations**

- Application and form's base URL
- Username and password
- API endpoints
- API Keys
- Constants

Folder

Common (Utilities) → **Page Repository** → **Test** → **Data** → **Source**

The reports, API Responses and Screenshots will be generated after each testrum and saved in a seprate folder based on timestamp.

Locators   **Test Data**

The respective file name will be as per the PageName for locators and TestName for TestData

Business Outcomes:

- 0 Human errors
- 2216 test cases automated
- Minimized code modifications during application changes, slashing maintenance time.
- Improved test result reliability through the implementation of a retry analyzer.
- Boosted test efficiency and reduced resource consumption with dynamic test data management.

Tech Stack

Explore the potential of leveraging automation for your business in the market. Connect with our team of automation experts today!

30-min free consultation →

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