CitiusTech

Shaping Healthcare Possibilities

Success Story

Enhancing Data Pipeline Efficiency and Reliability: ETL Testing Optimization for a Pharmaceutical Giant
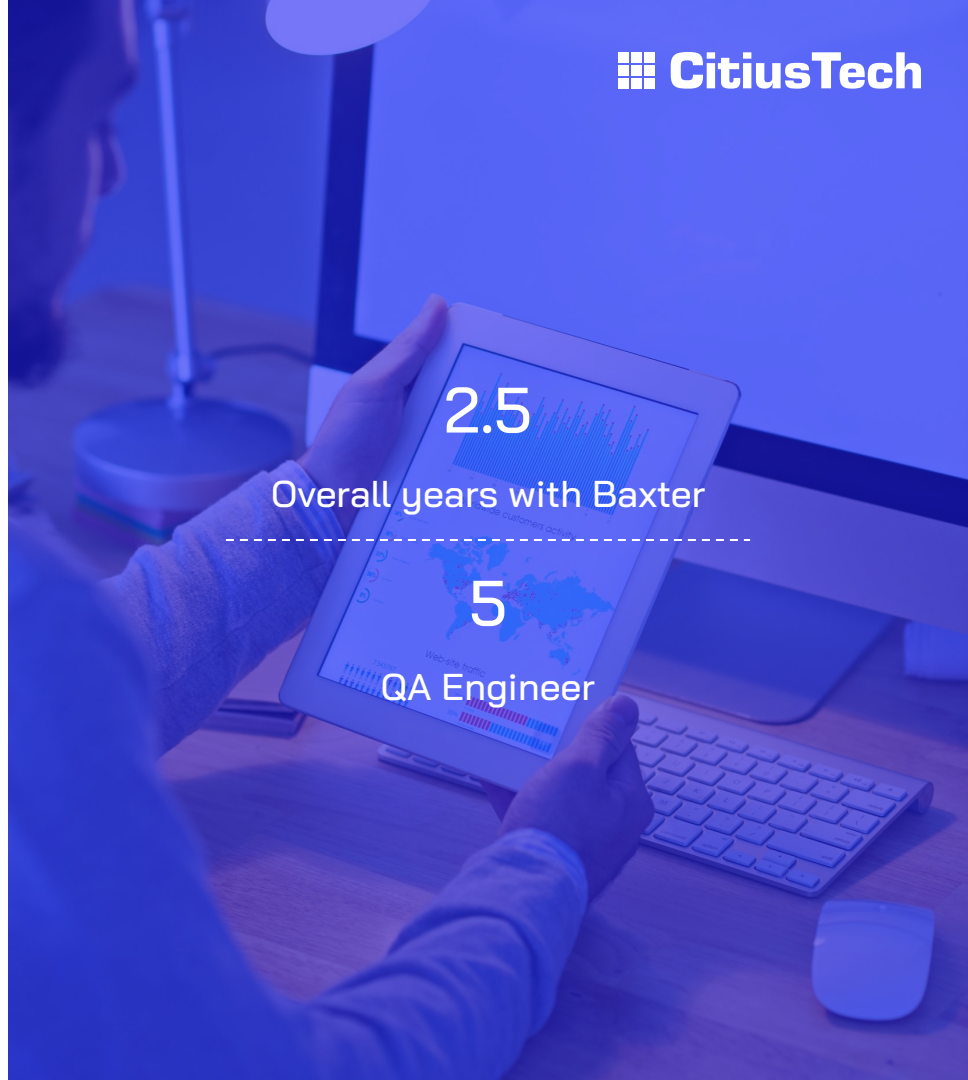
The Challenge

- Client is a leading medical device company that primarily focuses on renal and hospital care products
- Client has devices that deliver continuous renal replacement therapy (CRRT) for treating patients with Acute Kidney Injury.

The requirement is to test the client mobile application and web application, which includes verification of:

- GUI
- Integration between web and mobile app
- Localization testing for 11 countries
- Browser and mobile Compatibility testing
- Performance testing on web application

Tools and Technologies

JIRA	ALM	Oracle SQL Dev
AWS	Postman	

2.5
Overall years with Baxter

- -

5
QA Engineer

The Solution

- CitiusTech has setup and Automation COE with 2 distinct layers:
- Automation framework team is solely responsible for Automation framework development and enhancement using the technologies listed
- Automation engineering team is responsible for automating End to End UI, API and database scenarios for all the features developed in the application
- It supports multiple database technologies - RDBMS (Oracle, DB2, Netezza); No SQL (Cassandra); Cloud (Google Spanner)
- It supports Script Execution & Reporting for local executions & on Jenkins (CI/CD)
- Supports to spin up containers rather than setting up heavy virtual machines
- It has been upgraded to Selenium 4 for better debugging and error handling capabilities
- Leveraged Selenium Manager to handle Chrome version update automatically
- Execution of Scenarios on Selenium grid using Kubernetes
- Some of the other features of the framework are:
- Utility to validate data received in different Kafka topics through Automated Job Scheduling
- Utility to upload all 25 Protocols to any facility residing in SPANNER database
- Visibility of Element in Component
- Rerun failed scenarios from Jenkins
- Screenshot taking capability
- Skipping Test execution at run time after certain Time Interval
- PDF validation

Solution Highlights

- Automation of ~13000+ test scripts using Unified Automation framework has helped to reduce overall testing efforts and allowed shorter release cycles with improved quality
- Achieved ~70% automation coverage of the manual test cases provided
- Automation Saves 4 times of manual efforts during regression execution
- Early detection of functional issues
- Automation smoke and regression and test data creation scripts are extensively used by manual team for UAT
- BDD is known for bridging the gap between technical teams and business stakeholders. It operates on executable specifications written in Gherkin, a plain language accessible to all team members, fostering inclusivity and collaboration

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Thank You

CitiusTech - Shaping Healthcare Possibilities.
CitiusTech is a global IT services, consulting, and business solutions enterprise 100% focused on the healthcare and life sciences industry. We enable 140+ enterprises to build a human-first ecosystem that is efficient, effective, and equitable with deep domain expertise and next-gen technology.

With over 8,500 healthcare technology professionals worldwide, CitiusTech powers healthcare digital innovation, business transformation, and industry-wide convergence through next-generation technologies, solutions, and products