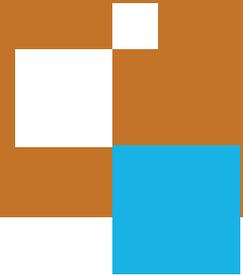# Test Automation Framework for Leading Payer Services Company

Client Requirement

Client is a leading provider of technology-drive solutions to health plans and payers. The client needed to implement a robust and sustained automation QA strategy starting for its portfolio of applications, including web services to reduce the manual testing cycle.

Given its expertise in product engineering, QA and test automation, the client selected CitiusTech to design and implement a comprehensive test automation solution for its application portfolio.

CitiusTech Solution

CitiusTech developed a complete automated testing solution capable of handling most of the applications in one environment.
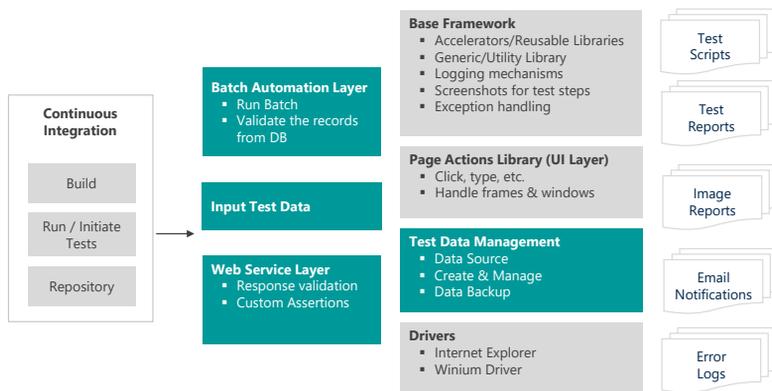
CitiusTech's solution included:

- Support for web, mobile, desktop applications and third-party component libraries catering to UI, API and batch automation testing.
- Flexibility to re-use test logic to reduce maintenance and improve test coverage. Input and result (test criteria) data values stored in a central data source.
- Robust strategy around test data management – to run test cases in any environment with minimal changes and integration of automation scripts (web and API) with CI/CD pipeline
- Powerful and flexible reporting capabilities for quick and easy view of results of testing activities
- Ability to run test scripts across multiple platforms and environments with integrated scheduling and real-time reporting

Technologies Used

- Programming Language: Java
- Test Framework : Selenium, Winium, TestNG
- CI/CD Tools: Maven, Jenkins
- Database: MySQL
- Reporting : Extent Reports

CitiusTech

Base Framework
- Accelerators/Reusable Libraries
- Generic/Utility Library
- Logging mechanisms
- Screenshots for test steps
- Exception handling

Test Scripts

Test Reports

Page Actions Library (UI Layer)
- Click, type, etc.
- Handle frames & windows

Image Reports

Continuous Integration

Build

Run / Initiate Tests

Repository

Batch Automation Layer
- Run Batch
- Validate the records from DB

Input Test Data

Web Service Layer
- Response validation
- Custom Assertions

Test Data Management
- Data Source
- Create & Manage
- Data Backup

Email Notifications

Drivers
- Internet Explorer
- Winium Driver

Error Logs

Solution Schematic

Value Delivered

By partnering with CitiusTech, the client was able to:

- Create a robust and scalable solution for test automation across its application portfolio

- Achieve platform and technology independence across its test processes

- Develop a strong ability to optimize test processes using analytics

About CitiusTech

CitiusTech is a specialist provider of healthcare technology services and solutions to healthcare technology companies, providers, payers and life sciences organizations. With over 4,000 professionals worldwide, CitiusTech enables healthcare organizations to drive clinical value chain excellence - across integration & interoperability, data management (EDW, Big Data), performance management (BI / analytics), predictive analytics & data science and digital engagement (mobile, IoT). CitiusTech helps customers accelerate innovation in healthcare through specialized solutions, platforms, proficiencies and accelerators. With cutting-edge technology, world-class service quality and a global resource base, CitiusTech consistently delivers best-in-class solutions and an unmatched cost advantage to healthcare organizations worldwide.

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