REPUBLIC SERVICES DRASTICALLY INCREASES EFFICIENCY THROUGH QA AUTOMATION

OVERVIEW

Republic Services is a leader in the recycling and waste management industry servicing 41 states throughout the U.S and Puerto Rico. Providing efficient recycling and waste disposal services for their customers is a top priority as they enhance their internal technologies.

Having their clients in mind, Republic Services set out to build a custom automation framework that would reduce their QA efforts and saves huge software testing time. Effectively implementing this functional automation, would increase their employee productivity and software solutions while also improving the quality of automation with the help of the test data retrieved from their databases.

By partnering with Mastek, they were able to incorporate a custom built automation framework that fit their current needs and allowed for easy system enhancements as needed without 3rd party assistance. This allowed Republic Services to become more efficient, while saving time and reducing expenses.

CHALLENGE

Republic Services' big challenge was that they didn't have a functional automation framework in place for a web based Angular JS application, which is a portal for their dispatching, that could handle processing the data requests necessary to improve their efficiency. This is a critical application to their business and lacking this automation framework prohibited performing smoke and regression testing for new builds quickly and properly fetching the data from the database to automate the test cases and data validations. Without an automation framework present, it also decreased employee efficiency and didn't allow them to deliver software enhancements quickly to suit their business needs.

SOLUTION

The solution to these challenges were to build an automation framework that would successfully process all of the data points for their customer accounts. To achieve the client goals, Behavioral Driven Development (BDD) framework was implemented with Protractor, Typescript, Cucumber along with CI/CD using Jenkins. These implementations would directly reduce their QA foots and increase employee productivity and software solutions, while also reducing expenses and increasing collaboration.

Mastek
Trust. Value. Velocity

KEY OUTCOMES

➢ Created an Automation Framework

➢ Extensive test reports and results

➢ Improved Regression and Smoke Testing Times

➢ Wide test coverage including very edge cases through the data driven Automation Framework

➢ Maintainable and Reusable for Future Enhancements

➢ Cost Efficient

➢ Improved Quality and Employee Efficiency

➢ Ensured consistency

RESULTS

Republic Services saw an immediate improvement with the quality of testing and employee efficiency through the nightly run of automatically scheduled jobs in Jenkins. These actions saved on an average 24 hours per sprint which is 93% savings on Smoke Suite and 87.5% savings on the Regression Suite. Republic Services now have a functional automation framework in place that will save time, reduce expenses, and improve employee productivity. It also helped easy identification and debugging of issues that eventually assisted in the delivery of a quality product for the company.

BY THE NUMBERS

➢ 24 - Hours Saved per Sprint

➢ ROI: Regression Suite 87.5% Savings

➢ ROI: Smoke Suite 93% Savings

➢ Minimal Effort for Future Enhancements

KEY TECHNOLOGIES USED:

➢ Behavior Driven Development (BDD)

➢ Protractor,Typescript with Cucumber Framework

➢ Jenkins

➢ Zalenium, Docker

➢ Selenium

➢ Allure Reports

ABOUT

Mastek is a turnkey & trusted Digital Engineering & Cloud Transformation partner that delivers Innovative Solutions and Business Outcomes for clients in Healthcare & Life Sciences, Retail, Manufacturing, Financial Services, Government/ Public Sector, etc. We enable customer success and business change programs by partnering with enterprises to unlock the power of data, modernize applications to the cloud, and accelerate digital advantage for all stakeholders. Customers Trust Mastek to deliver Business Value with Velocity and we operate in 40+ countries including the UK, Americas, Europe, Middle East, APAC with ~5000 employees. We are in the business of de-complexing Digital and making our clients future-ready with an industry-first approach. For more details, please visit our website **www.mastek.com.**

Mastek™

Trust. Value. Velocity