Lessons Learned – Sauce Demo Automation Testing Project

Project Overview

This document outlines the key lessons learned during the automation and testing of the Sauce Demo web application. The project focused on functional and negative testing, defect identification, and Selenium-based automation using Sauce Demo as the selected application under test.

Testing & Quality Insights

- Negative test scenarios (e.g., locked_out_user) are valuable for validating system robustness.

- Input validation gaps were identified, particularly around postal code formats, highlighting the importance of boundary and format testing.

- Different user roles can behave inconsistently; role-based testing is essential to uncover hidden defects.

- High-severity defects in checkout flows directly impact business value and must be prioritized.

Automation & Tooling Lessons

- Selenium automation is effective for validating core UI workflows such as login, cart, and checkout.

- Websites that use CAPTCHA or human verification popups to distinguish humans from bots cannot be reliably automated using Selenium. These security mechanisms are designed to block automation tools, and such scenarios should be excluded from the automation scope or covered through manual testing.

- Stable locators and consistent test data significantly improve automation reliability and maintainability.

Process & Documentation Lessons

- Well-documented test cases and defect reports improve analysis and reporting.

- Clear expected versus actual results reduce lack of clarity during defect review.

- Screenshots and supporting evidence are essential for defect credibility.

Overall Takeaway

The Sauce Demo project highlights the importance of combining manual and automation testing, prioritizing high-risk user journeys, and understanding the limitations of automation tools such as Selenium. Applying these lessons will help improve testing effectiveness and project outcomes in future initiatives.