DevRabbit
Smart IT Delivered

WEB AUTOMATION USING SELENIUM

Client Situation

- Automate critical scenarios for regression testing

- Execute all scripts within less span of time

- Build an automation framework for better to understand Stakeholders and for efficient data references and validation in their front end

- build robust and high scalable automation regression suite to support their sprint cycles

- Run test suite using the continuous integration tool

- Reduce regression cycle time by at least 70%.

Overview

NIO is much more than a car company. It designs, manufactures, and sells smart and connected premium electric vehicles, driving innovations in next generation technologies in connectivity, autonomous driving and artificial intelligence. This project is based on automation of cars and providing people free from driving, giving freedom of time. Users and their roles are assigned for security purpose.

Business Need

- To automate test cases for VEDA APP's of their core application for different Operating Systems and browser combinations using Selenium Webdriver

- To automate test cases of every WEB page, using Selenium Webdriver and Pytest-BDD in Python.

- Products had complex E2E scenarios interacting with multiple 3rd-party services

- Improve coverage & prevent defect leakages to ensure world-class quality product in autonomous driving space

Recommended Solution

- DevRabbit developed a framework after couple of months analysis on different opensource tools, technologies and integrations, concluded Python with BDD module

- We worked on an iterative and incremental plan for automation scripts development

- Used Selenium Webdriver and Pytest-BDD module in Python for WEB automation with reusability, less number of lines of code adhere OOPs standards

- Integrated Code coverage, Unit, regression

- Updated the automation suite, and expanded coverage

- Enhanced process for Defect Management

Results

- Client achieved 100% test automation coverage for cross browser compatibility

- Reduced the regression cycle time by 70%, and thereby shortened release timelines

- Executed all test scripts through Browser stack utility in all different browser and OS combinations which helped in identifying issues much faster than ever before.

- Reduced time of manual testing during feature enhancements and development

- Reduced maintenance efforts by at least 50% with lxml scrapping & beautifulsoup

Technologies

• Selenium Webdriver • Pytest-BDD

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