

Comparative Analysis of Automation Testing Tools

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Abstract : In the ever-changing landscape of software development, automated software testing has emerged as a critical component of the Software Development Life Cycle (SDLC). This research undertakes a comparative study of three major automated testing tools -UFT, Selenium, and RPA- evaluating them on usability, maintenance, and effectiveness. Leveraging existing JAVA-based applications as test cases, the study aims to guide testers in selecting the optimal tool for specific applications. By exploring key features such as source and licensing, testing expenses, object repositories, usability, and language support, the research provides practical insights into UFT, Selenium, and RPA. Acknowledging the pivotal role of these tools in streamlining testing processes amid time constraints and resource limitations, the study assists professionals in making informed choices aligned with their organizational needs.

Keywords : software testing tools, software development lifecycle (SDLC), test automation frameworks, automated software, JAVA-based, UFT, selenium and RPA (robotic process automation), source and licensing, object repository

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