ABSTRACT

As the complexity of web applications increases and the demand for high-quality software grows, the need for more efficient and faster testing processes becomes ever more critical. In this context, automation testing using Cypress was implemented on the Order Planning system to assess the extent to which this approach could impact the speed and effectiveness of testing. This report focuses on how decision-making processes can be accelerated through automation, how Cypress can outperform manual methods in terms of execution time, and its contribution to testing the core functionality of the application. Through direct experimentation, Cypress demonstrated its ability to speed up testing cycles, reduce reliance on manual testing, and improve accuracy in detecting bugs. Features such as real-time testing, continuous integration, and ease of debugging proved to add significant value in enhancing the productivity of the QA team. The efficiency of using Cypress showed a 65.21% improvement over manual methods, indicating a significant efficiency gain in the testing process. These results confirm that Cypress is a reliable and efficient tool for enhancing the speed, accuracy, and quality of web application testing, making it a strategic solution to support the development of modern, more reliable, and sustainable software.

***Keywords**: Automation Testing, Cypress, Order Planning, Software Testing, Efficiency*