Study on Automation Testing Using Selenium WebDriver and Application to Website Demoblaze.com

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***Abstract*—This thesis explores the application of Selenium WebDriver for automation testing, focusing on the website Demoblaze.com. The author reviews the principles and types of software testing, delves into Selenium WebDriver, and applies these concepts to test the functionalities of Demoblaze.com. The study highlights the author's understanding of Selenium WebDriver and the process of automation testing, but acknowledges limitations in fully exploring all Selenium WebDriver features and optimizing test scripts. The author successfully implemented automation testing using Selenium WebDriver for the Demoblaze.com website, but notes that not all features of Selenium WebDriver were fully explored, and test scripts were not optimized. The study concludes that the author has enhanced their understanding of software testing and Selenium WebDriver, but acknowledges that there are still areas for further research and improvement.**

***Index Terms*—Selenium WebDriver, Automation Testing, Demoblaze.com, Software Testing, Test Script**

I. Introduction

The thesis provides an overview of software testing, including its principles, types, and automation testing. It then focuses on Selenium WebDriver, detailing its features and usage, and applies these to test the functionalities of the Demoblaze.com website. The author reviews existing literature on software testing and Selenium WebDriver, and applies these concepts to test the Demoblaze.com website. The methods include designing test scripts based on manual testing and executing these scripts using Selenium WebDriver. The study highlights the author's understanding of Selenium WebDriver and the process of automation testing, but acknowledges limitations in fully exploring all Selenium WebDriver features and optimizing test scripts [1]. Published articles on the methods and subject of this project provide context for this English summary [3], [4], [5], [7], [8], [9]. Published books on the methods and subject of this project provide context for this English summary [6], [10].

II. Methods

The author reviews existing literature on software testing and Selenium WebDriver, and applies these concepts to test the Demoblaze.com website. The methods include designing test scripts based on manual testing and executing these scripts using Selenium WebDriver. The author uses Selenium WebDriver to automate the testing of various functionalities on the Demoblaze.com website, including navigation, form submissions, and button clicks. The test scripts are written in Java and executed using the TestNG framework. The author also uses the Page Object Model (POM) to organize the test scripts and improve maintainability. However, the study notes that not all features of Selenium WebDriver were fully explored, and test scripts were not optimized [1].

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III. Results

The author successfully implemented automation testing using Selenium WebDriver for the Demoblaze.com website. The study notes that the author was able to automate the testing of various functionalities on the website, including navigation, form submissions, and button clicks. However, the study also notes that not all features of Selenium WebDriver were fully explored, and test scripts were not optimized. The author was able to execute the test scripts using the TestNG framework and the Page Object Model (POM) to organize the test scripts and improve maintainability. However, the study does not provide any measured evaluation or test pass count [1].

IV. Discussion

The thesis discusses the benefits of automation testing and the use of Selenium WebDriver, but also highlights areas for improvement, such as a need for a deeper exploration of Selenium WebDriver features and better optimization of test scripts. The author acknowledges that the study has enhanced their understanding of software testing and Selenium WebDriver, but there are still areas for further research and improvement. The study notes that the author was able to automate the testing of various functionalities on the Demoblaze.com website, but not all features of Selenium WebDriver were fully explored, and test scripts were not optimized. The author suggests that future work should focus on exploring more advanced features of Selenium WebDriver and optimizing test scripts to improve the overall effectiveness of the automation testing process [1].

V. Conclusion

The author concludes that the study has enhanced their understanding of software testing and Selenium WebDriver, but acknowledges that there are still areas for further research and improvement. The study notes that the author was able to automate the testing of various functionalities on the Demoblaze.com website, but not all features of Selenium WebDriver were fully explored, and test scripts were not optimized. The author suggests that future work should focus on exploring more advanced features of Selenium WebDriver and optimizing test scripts to improve the overall effectiveness of the automation testing process [1].

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