

Review Form 3

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| Journal Name: | Asian Journal of Research in Computer Science |
| Manuscript Number: | Ms_AJRCOS_128913 |
| Title of the Manuscript: | Investigating Automating Software Testing in Terms of Reliability: A Comparative Study of Selenium and Playwright |
| Type of the Article | Original Research Article |

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

| | Reviewer's comment | Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
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| Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part. | This study offers an insightful comparison between Selenium and Playwright, two prominent tools in automated software testing. By examining reliability metrics such as uptime and the Rate of Occurrence of Failures (ROCOF), it fills a crucial gap in research on the dependability of these frameworks under carefully controlled conditions. Furthermore, the analysis considers hardware differences, specifically SSD versus HDD performance, making the findings particularly relevant to developers and testers. The study's outcomes are directly applicable to software testing processes in modern continuous integration and deployment workflows, making it a valuable addition to the software engineering field. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The title, " <i>Investigating Automating Software Testing in Terms of Reliability: A Comparative Study of Selenium and Playwright</i> ," is descriptive and fine yet it is better to be more concise and straightforward. As a suggestion, <i>"Comparative Reliability Analysis of Selenium and Playwright: Evaluating Automated Software Testing Tools."</i> | |

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| <p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p> | <p>The abstract provides a clear summary of the study's aims, methodology, and results, making it comprehensive overall. However, a few improvements could make it even better. It should include a brief mention of the hardware configurations (HDD and SSD) used in the study, as this is a key aspect of the analysis. Additionally, the abstract could highlight the practical importance of the results for the software testing industry, especially in terms of helping users choose tools based on needs like uptime or stability. Lastly, while the focus on uptime is helpful, it might be better to balance this by including a brief mention of the ROCOF findings, which offer additional insights into reliability.</p> | |
| <p>Is the manuscript scientifically, correct? Please write here.</p> | <p>The manuscript is scientifically accurate and well-structured, with the methodology and results clearly presented and supported by data. The experimental setup is robust, and the analysis of reliability metrics like uptime and ROCOF is appropriate for the study's objectives. Anyway, the manuscript can be improved by adding more details about the statistical methods used to analyze the data, especially for comparisons across different hardware configurations.</p> <p>Furthermore, clarifying whether this study builds on or supported by previous research would strengthen its scientific contribution, better to add little bit of literature review on the domains.</p> | |
| <p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> | <p>The references cited are relevant yet not entirely sufficient.</p> <p>Try if relevant, Recent papers on testing frameworks in CI/CD environments. And studies comparing alternative tools like Cypress or Puppeteer to provide a broader context.</p> | |
| <p>Is the language/English quality of the article suitable for scholarly communications?</p> | <p>The manuscript is well-written and uses clear, professional language suitable for scholarly communication</p> | |
| <p>Optional/General comments</p> | <p>The manuscript provides a well-organized and insightful comparison of Selenium and Playwright, focusing on reliability metrics like uptime and failure rates. The study is highly relevant to the field of software testing, offering practical guidance for testers and developers when choosing tools based on their needs. The methodology is clearly outlined, and the results are presented in a logical and easy-to-follow way. However, few areas could be improved.</p> <p>For example, the manuscript includes relevant references, some of them are a bit outdated. Adding more recent studies would make the work more up-to-date and align better with current practices in the industry. The abstract does a good job summarizing the study, yet mentioning the specific hardware used (HDD and SSD) and including a brief note on the practical implications of the findings would make it even stronger. More details on the statistical analysis would help clarify the comparisons between hardware configurations.</p> <p>Overall, this is a solid piece of research that contributes valuable insights to the software testing field. With a few revisions to improve clarity and update references, it will be even more impactful.</p> | |

PART 2:

| | Reviewer's comment | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
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| <p>Are there ethical issues in this manuscript?</p> | <p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p> | |

Reviewer Details:

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| <p>Name:</p> | <p>JPD Wijesekara</p> |
| <p>Department, University & Country</p> | <p>NSBM Green University, Sri Lanka</p> |