FACULTY OF COMPUTING
UNIVERSITI TEKNOLOGI MALAYSIA

(SECV2223)

WEB PROGRAMMING

GROUP 1 NEON GENESIS
ASSIGNMENT 01 REPORT
SECTION 06

LECTURER NAME
Ts. Dr. Sarina binti Sulaiman

STUDENT NAME AND MATRIC ID
Nur Aisha binti Rohaizat A22EC0094
**Ali Hariz bin Anuari A22EC0037**
**Muhammad Aqil Haziq bin Zulkarnain A22EC0081**

1.0 Introduction

According to an article published by Forbes titled "The Best Website Builders for 2024", we have selected Weebly, Wix, IONOS, Squarespace and WordPress as the platforms to conduct a Web Performance Audit. The audit will be carried out using Google Lighthouse, an open-source automated tool designed to enhance the quality of websites. It will provide a comprehensive analysis of performance, accessibility, best practices, and Search Engine Optimization (SEO).
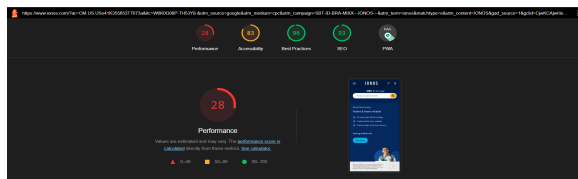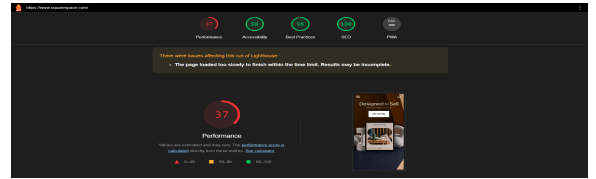
2.0 Performance report's findings

2.1 Weebly
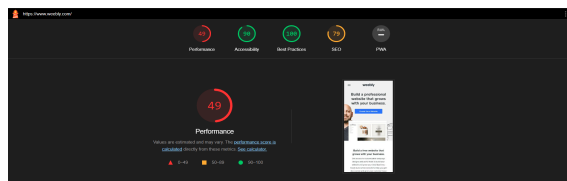
2.2 Wix
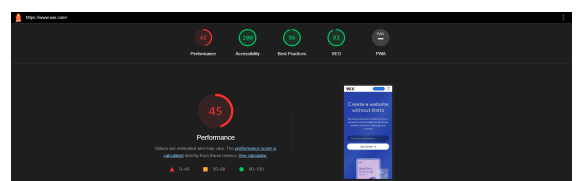
2.3 IONOS

2.4 Squarespace

2.5 WordPress
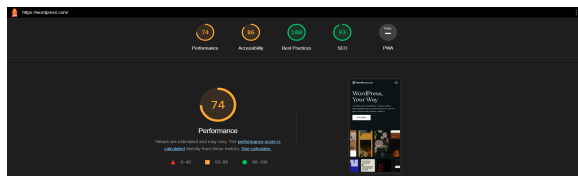
No.	Website Builder Website	Google Lighthouse Report			
		Performance	Accessibility	Best Practices	SEO
1	Weebly	49	90	100	79
2	Wix	45	100	96	93
3	IONOS	28	83	96	93
4	Squarespace	37	98	96	100
5	WordPress	74	86	100	93

3.0 Summarization

3.1 Weebly

Weebly excels in best practices with a perfect score of 100, ensuring optimal web performance and security measures are in place. The accessibility is also commendable, scoring 90, attributed to user-friendly design features that cater to a diverse audience. However, Weebly's performance lags with a score of 49, indicating areas for improvement in site loading speed and efficiency, while the SEO score of 79 suggests enhancements are needed for better search engine visibility.

3.2 Wix

Wix boasts an impressive accessibility score of 100, ensuring the platform is usable by people with various abilities and disabilities. The SEO is also strong at 93, indicating effective optimization for search engine visibility. Best practices are well adhered to with a score of 96. However, Wix's performance at 45 indicates the need for improvement in website loading speed and overall efficiency.

3.3 IONOS

IONOS has strengths in best practices and SEO, both scoring an impressive 96 and 93 respectively, ensuring secure, efficient operation and excellent search engine visibility. However, it faces significant challenges in performance with a low score of 28, indicating slow load times and inefficiencies that could impact user experience; its accessibility at 83 also suggests room for enhancement to cater more effectively to users diverse needs.

3.4 Squarespace

Squarespace shines in SEO with a perfect score of 100, ensuring optimal visibility on search engines; it also scores high in accessibility at 98. Best practices are well implemented as reflected by the score of 96. However, there's room for improvement in performance which scored only 37 points which is an indication that website loading speed and efficiency can be enhanced.

3.5 WordPress

WordPress stands out with perfect scores in best practices(100) and its SEO is high as well at 93 points suggesting effective strategies for search engine visibility have been implemented. Performance is relatively strong too at 74 points but there's still room for optimization to enhance user experience. Accessibility though commendable at 86 points could be improved further to ensure inclusivity for all users.

4.0 Comparison

4.1 Weebly

Weebly's performance score of 49 indicates room for improvement in website speed and resource optimization. Its strong accessibility score of 90 suggests good user experience for diverse audiences.Best practices score of 100 signifies adherence to modern web development standards and techniques.The SEO score of 79 shows potential for enhancing search engine visibility through optimization techniques.

4.2 Wix

Wix's performance score of 45 highlights a need for optimizations to improve website loading times. With a perfect accessibility score of 100, Wix ensures that its websites are usable by all visitors. Best practices score of 96 indicates a high level of technical excellence in website development. The SEO score of 93 reflects strong optimization efforts for search engine ranking and visibility.

4.3 IONOS

IONOS has a lower performance score of 28. It indicates a significant room for speed and resource improvement. Its accessibility score is 83. It shows a decent level of inclusivity for users with different needs. When it comes to best practices, a score of 96 signifies good adherence to modern web development standards and practices. The SEO score of 93 shows strong optimization efforts for search engine visibility and ranking.

4.4 Squarespace

Squarespace has a performance score of 37. It clearly indicates a need for optimizations to enhance website speed and performance. When it comes to accessibility , its accessibility score of 98 ensures excellent user experience for all visitors. Best practices score of 96 signifies adherence to modern web development standards and practices. Lastly, the SEO score was a high 100. It reflects strong optimization efforts for search engine visibility and ranking.

4.5 WordPress

WordPress stands out with a high performance score of 74, it shows and indicates the good and efficient website speed and resource handling. Its accessibility score of 86 suggests good inclusivity for users with diverse needs. Best practices score of 100 signifies strong adherence to modern web development standards and practices. The SEO score of 93 reflects effective optimization for search engine visibility and ranking

5. Recommendations for Optimization and Improvement

5.1 Weebly:
- Optimize images and resources to improve the performance score.
- Implement lazy loading for images and videos to speed up page loading times.
- Enhance SEO by optimizing meta tags, improving page titles and

incorporating relevant keywords.
- Ensure compatibility with screen readers and keyboard navigation for better accessibility.

5.2 Wix:
- Minimize and combine CSS/JS files to improve performance metrics.
- Utilize responsive images and optimize media files for faster loading.
- Improve SEO by optimizing meta tags, adding alt text to images and enhancing site structure.
- Conduct regular accessibility audits and address any issues to maintain a high accessibility score.

5.3 IONOS:
- Optimize server response times and reduce unnecessary redirects to boost performance.
- Compress images and enable caching to improve page load times.
- Enhance SEO by optimizing content, improving internal linking and submitting sitemaps to search engines.
- Conduct thorough accessibility testing and make necessary adjustments for improved inclusivity.

5.4 Squarespace:
- Enable caching and leverage content delivery networks (CDNs) for faster page loading.
- Optimize images and videos by compressing them without compromising quality.
- Enhance SEO by optimizing meta descriptions, improving URL structure and adding structured data markup.
- Regularly review and update accessibility features to ensure compliance with WCAG standards.

5.5WordPress:
- Optimize WordPress plugins and themes to reduce server load and improve performance.
- Implement caching mechanisms and use a content delivery network (CDN) for faster content delivery.
- Focus on on-page SEO techniques such as optimizing headings, meta tags, and improving internal linking.
- Install and configure accessibility plugins to enhance website accessibility for all users.

6. Citation:

Smith, A. N. (2021, December 6). *Best Website Builder (Top 10 May 2022)*. Forbes Advisor. https://www.forbes.com/advisor/business/software/best-website-builders