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Experiment - 11

Aim - To use google Lighthouse PWA Analysis Tool to test the PWA functioning.

Theory -

Google Lighthouse is a powerful open-source tool designed to improve the quality of web pages by providing comprehensive audits across various metrics. Here's a breakdown of its features:

1. Performance:

- Provides valuable metrics to optimize site performance, including opportunities for improvement.
- Offers insights into render-blocking resources such as stylesheets, scripts, and HTML imports.
- Combines data from both real-world usage (Field Data) and simulated conditions (Lab Data) for a comprehensive analysis.

2. Accessibility:

- Highlights potential improvements to enhance accessibility and user experience.
- Ensures that websites are easily navigable and usable for all users, including those with disabilities.
- Improving accessibility can also positively impact search engine rankings.

3. Best Practices:

- Offers recommendations to improve overall site performance and user experience, particularly for mobile sites.
- Provides suggestions for adhering to best practices in web development and design.

4. SEO:

- Evaluates a website's optimization for search engine rankings.
- Provides essential tools to analyze and improve a page's visibility in search engine results.
- Covers fundamental aspects of SEO, though not all factors may be considered.

5. Progressive Web Applications (PWAs):

- Assess whether a website meets the criteria for being classified as a Progressive Web App.
- Focuses on key factors such as service worker registration, enabling push notifications, and offline capabilities.
- Helps developers enhance the user experience and engagement with modern web app features.

Overall, Google Lighthouse offers a comprehensive suite of metrics and recommendations to help developers optimize their websites for performance, accessibility, SEO, and PWA features.

By addressing the issues identified in the Lighthouse report, developers can improve their site's user experience, search engine visibility, and overall quality.

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    {
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      "purpose": "any maskable"
    }
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}
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ScreenShot -









**Conclusion -**

In this experiment, we have successfully used Google Lighthouse PWA Analysis Tool for testing the PWA functioning.