

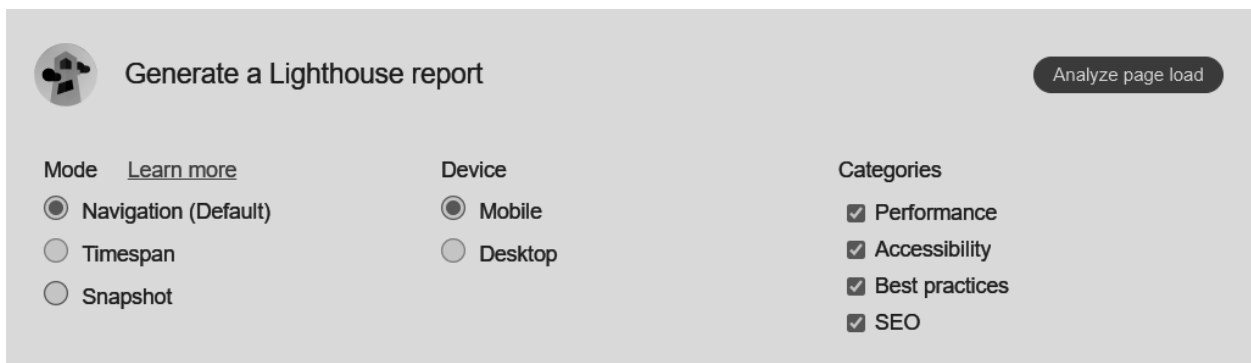
EXPERIMENT NO. 11**MAD and PWA Lab****1. Aim:**

To use Google Lighthouse PWA Analysis Tool to test the PWA functioning.

2. Description:

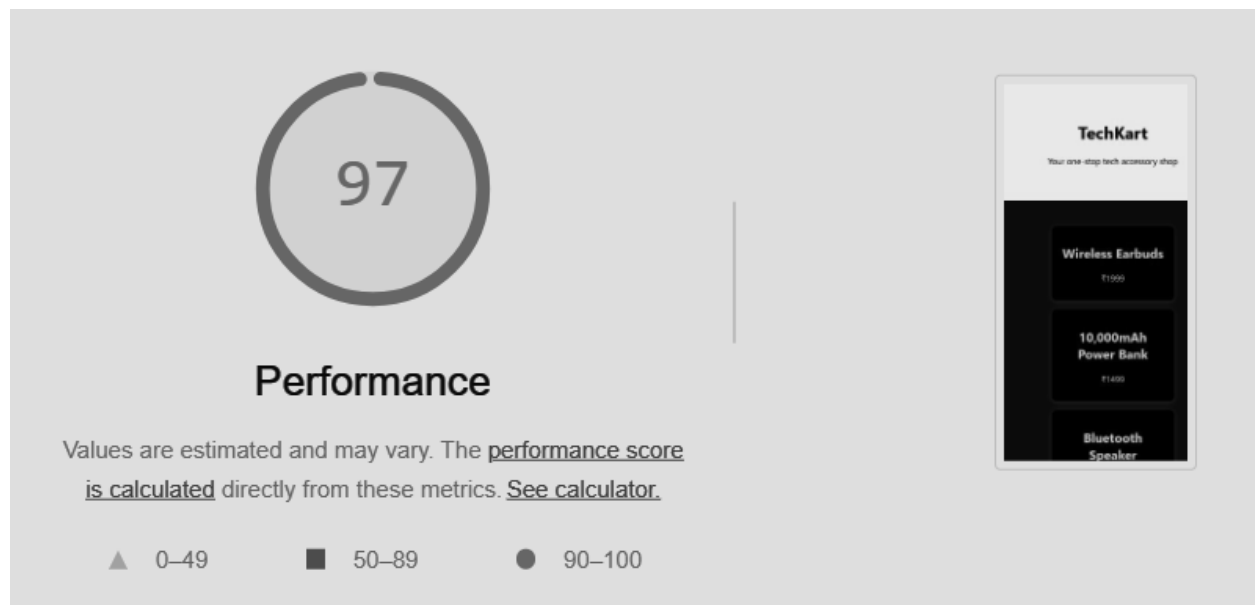
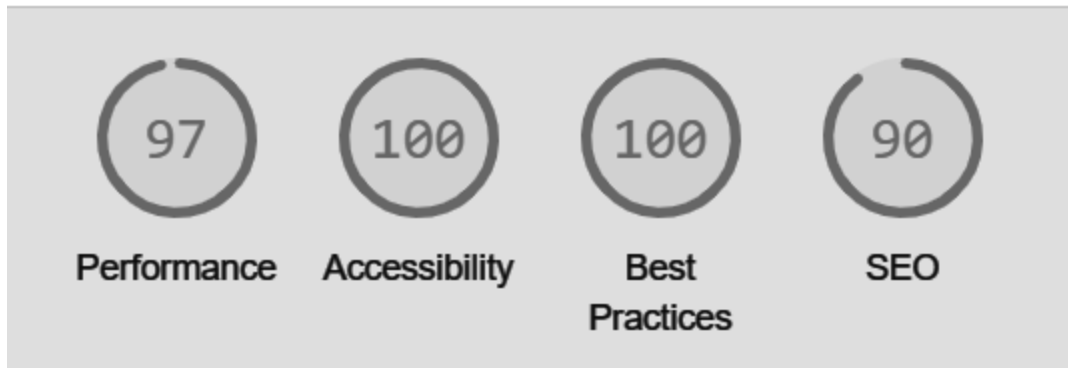
This experiment utilizes Google Lighthouse, an open-source, automated tool, to evaluate and improve the quality of web pages, including Progressive Web Apps (PWAs). Lighthouse audits various aspects of a web page, providing reports on performance, accessibility, PWA compliance, SEO, and more. It can be run within Chrome DevTools, from the command line, or as a Node module. Lighthouse provides a comprehensive analysis of a site's quality and offers recommendations for improvement.

- Key Features and Metrics:
 - Performance: Evaluates page load speed and provides metrics to optimize site performance.
 - Accessibility: Identifies opportunities to improve the usability of the site for all users.
 - Best Practices: Offers recommendations to enhance both performance and user experience.
 - SEO: Analyzes the page's optimization for search engine rankings.
 - Progressive Web App: Audits the page for PWA compliance, ensuring it meets the criteria for installability and native app-like functionality.



The screenshot shows the Google Lighthouse interface. At the top, there is a button labeled "Generate a Lighthouse report" with a Lighthouse icon to its left. To the right of this button is a smaller button labeled "Analyze page load". Below these buttons, there are three sections of configuration options:

- Mode:** Includes a link "Learn more" and three radio button options: "Navigation (Default)" (selected), "Timespan", and "Snapshot".
- Device:** Includes two radio button options: "Mobile" (selected) and "Desktop".
- Categories:** Includes four checked checkboxes: "Performance", "Accessibility", "Best practices", and "SEO".



3. Conclusion:

This experiment demonstrates the use of Google Lighthouse as a valuable tool for testing and improving PWA functioning. Lighthouse provides detailed reports and actionable insights, enabling developers to optimize their PWAs for performance, accessibility, and overall quality.

4. GitHub Link:

<https://github.com/atharvnikam38/techkart-pwa>