

NAME	KAUSHAL S GALAV
CLASS/ROLL NO	D15C/11
SUBJECT	MAD AND PWA LAB
DOP	
DOS	
SIGN	

MPL EXP 11

AIM: To use google Lighthouse PWA Analysis Tool to test the PWA functioning.

Description:

Google Lighthouse : Google Lighthouse is a tool that lets you audit your web application based on a number of parameters including (but not limited to) performance, based on a number of metrics, mobile compatibility, Progressive Web App (PWA) implementations, etc. All you have to do is run it on a page or pass it a URL, sit back for a couple of minutes and get a very elaborate report, not much short of one that a professional auditor would have compiled in about a week.

The best part is that you have to set up almost nothing to get started. Let's begin by looking at some of the top features and audit criteria used by Lighthouse.

Screenshot:



Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)

▲ 0–49 ■ 50–89 ● 90–100

METRICS

[Expand view](#)

▲ First Contentful Paint
4.5 s

● Total Blocking Time
90 ms

■ Speed Index
5.7 s

▲ Largest Contentful Paint
6.2 s

● Cumulative Layout Shift
0

DIAGNOSTICS

- ▲ Largest Contentful Paint element — 6,230 ms
- ▲ Eliminate render-blocking resources — Potential savings of 1,890 ms
- ▲ Serve images in next-gen formats — Potential savings of 456 KiB
- ▲ Properly size images — Potential savings of 120 KiB
- ▲ Defer offscreen images — Potential savings of 89 KiB
- ▲ Reduce unused JavaScript — Potential savings of 72 KiB
- ▲ Reduce unused CSS — Potential savings of 18 KiB
- Image elements do not have explicit `width` and `height`
- Minify CSS — Potential savings of 2 KiB

Conclusion: In this experiment, we effectively used Google Lighthouse to evaluate the PWA functionality of our ecommerce application. The tool provided a detailed audit covering key aspects such as Performance, Accessibility, Best Practices, and Progressive Web App compliance.

The Lighthouse analysis helped us understand how well our app meets modern web standards and provided insights to enhance its speed, reliability, and overall user experience.

https://github.com/kaushalcracks/whatsapp_clone