

70 (11)

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MPL Experiment 11

Aim : To use google lighthouse tool to test PWA functioning.

Theory :

Google lighthouse is a tool that test your web application based on number of parameters including performance, based on a number of metrics, mobile compatibility, Progressive Web App implementations.

All you have to do is run it on a page or pass a url to it.

Key features and Audit Metrics

1) Performance : This score is a aggregation of how the page fared in aspect of loading speed, time taken for loading basic frames, displaying meaningful content to user.

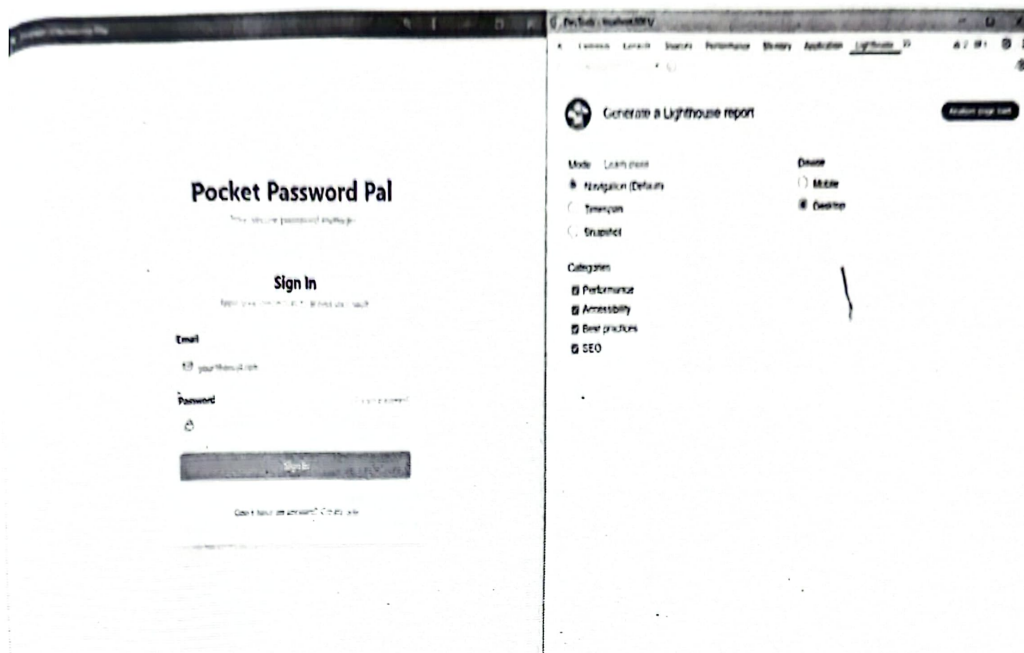
2) PWA score (mobile) : Thanks to the rise of service workers, app manifests etc, a lot of modern web apps moving towards PWA paradigm.

3) Accessibility: As you might have guessed, this is a measure of how accessible your website is across a plethora of accessibility features that implemented in your page.

4) Bot practices: As you might have guessed, this is a number of practices that have been deemed based on empirical data. These metrics are an aggregation of many such points, including not limited to UNOF HTTP.

* Conclusion

Then we have successfully used Google Lighthouse PWA analysis Tool for testing the PWA functioning. Lighthouse provided all the SEO, PWA, Accessibility & functionality score.



<https://pocket-password-pal.lovable.app/>

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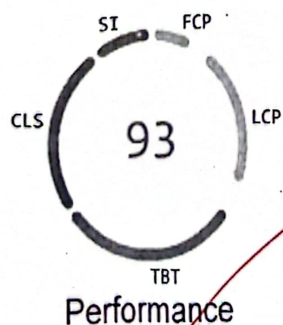
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Performance

Accessibility

Best Practices

SEO



Pocket Password Pal

Sign In

Email

password@lovable.app

Password

password

Sign In

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
2.4 s

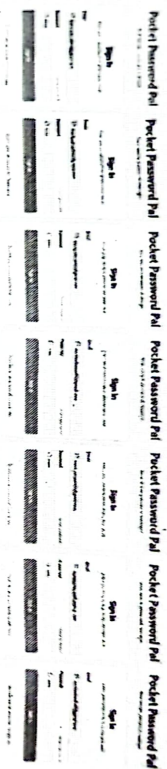
Largest Contentful Paint
2.8 s

Total Blocking Time
0 ms

Cumulative Layout Shift
0

Speed Index
2.4 s

View Treemap



Show audits relevant to: ☐ A ☐ FCP ☐ LCP ☐ TBT

DIAGNOSTICS

- ▲ Reduce unused JavaScript — Potential savings of 89 KiB
- ▲ Largest Contentful Paint element — 2,770 ms
- ▲ Page prevented backforward cache reservation — 1 failure reason
- Serve static assets with an efficient cache policy — 4 resources found
- Initial server response time was short — Root document took 150 ms
- Avoids enormous network payloads — Total size was 212 KiB
- Avoids an excessive DOM size — 39 elements
- Avoid chaining critical requests — 3 chains found
- JavaScript execution time — 0.3 s
- Minimizes main-thread work — 0.8 s
- Minimize third-party usage — Third-party code blocked the main thread for 0 ms
- Avoid long main-thread tasks — 2 long tasks found

More information about the performance of your application. These numbers don't directly affect the Performance score

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Accessibility

These checks highlight opportunities to improve the accessibility of your web app. Automatic detection can only detect a subset of issues, and does not guarantee the accessibility of your web app, so manual testing is also encouraged.

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Best Practices

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SEO

These checks ensure that your page is following basic search engine optimization advice. There are many additional factors Lighthouse does not score here that may affect your search ranking, including performance on Core Web Vitals. [Learn more about Google Search Essentials](#).