

Web Performance Report

With Google Lighthouse

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Introduction

This document presents a review about the performance of the Web App I have been developing during this semester.

The measurement tool used to gather information about the Web App and generated the listed review is Lighthouse Tool.

The assessment covers categories like the performance, accessibility, best practices, SEO (Search Engine Optimization), and PWA (Progressive Web App).



Performance



Accessibility



Best Practices



SEO



PWA



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

0.2 s

Time to Interactive

1.8 s

Speed Index

0.5 s

Total Blocking Time

130 ms

Largest Contentful Paint

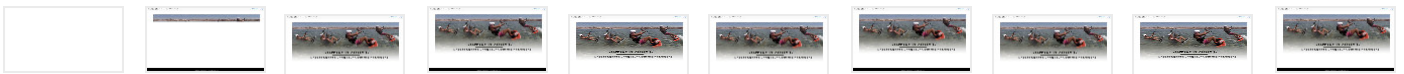
2.0 s

Cumulative Layout Shift

0

[View Original Trace](#)

[View Treemap](#)



Show audits relevant to: [All](#) [FCP](#) [TBT](#) [LCP](#) [CLS](#)

OPPORTUNITIES

Opportunity

Estimated Savings

Reduce unused JavaScript

0.52 s

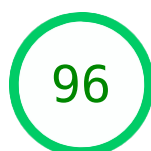
These suggestions can help your page load faster. They don't [directly affect](#) the Performance score.

DIAGNOSTICS

- ▲ Registers an [unload](#) listener
- ▲ Serve static assets with an efficient cache policy — 2 resources found
- User Timing marks and measures — 2 user timings
- Keep request counts low and transfer sizes small — 7 requests • 1,701 KiB
- Largest Contentful Paint element — 1 element found
- Avoid long main-thread tasks — 1 long task found

More information about the performance of your application. These numbers don't [directly affect](#) the Performance score.

PASSED AUDITS (31)

[Show](#)

Accessibility

These checks highlight opportunities to [improve the accessibility of your web app](#). Only a subset of accessibility issues can be automatically detected so manual testing is also encouraged.

CONTRAST

- ▲ Background and foreground colors do not have a sufficient contrast ratio.

These are opportunities to improve the legibility of your content.

ADDITIONAL ITEMS TO MANUALLY CHECK (10)

[Show](#)

These items address areas which an automated testing tool cannot cover. Learn more in our guide on [conducting an accessibility review](#).

PASSED AUDITS (13)

Show

NOT APPLICABLE (30)

Show

67

Best Practices

USER EXPERIENCE

▲ Displays images with incorrect aspect ratio



▲ Serves images with low resolution



GENERAL

▲ Browser errors were logged to the console



▲ Issues were logged in the [Issues](#) panel in Chrome Devtools



○ Detected JavaScript libraries



▲ Missing source maps for large first-party JavaScript



TRUST AND SAFETY

○ Ensure CSP is effective against XSS attacks



PASSED AUDITS (8)

Show

NOT APPLICABLE (1)

Show

100

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](#).

ADDITIONAL ITEMS TO MANUALLY CHECK (1)

[Show](#)

Run these additional validators on your site to check additional SEO best practices.

PASSED AUDITS (11)

[Show](#)

NOT APPLICABLE (3)

[Show](#)

PWA

These checks validate the aspects of a Progressive Web App. [Learn more](#).

INSTALLABLE

- ▲ Web app manifest or service worker do not meet the installability requirements — 2 reasons



PWA OPTIMIZED

- ▲ Does not register a service worker that controls page and [start_url](#)



Configured for a custom splash screen



Sets a theme color for the address bar.



- Content is sized correctly for the viewport



Has a `<meta name="viewport">` tag with `width` or `initial-scale`



- ▲ Does not provide a valid [apple-touch-icon](#)



- ▲ Manifest doesn't have a maskable icon



These checks are required by the baseline [PWA Checklist](#) but are not automatically checked by Lighthouse. They do not affect your score but it's important that you verify them manually.

■ Captured at Jun 16, 2022, 7:00 PM GMT+2

■ Initial page load

■ Emulated Desktop with Lighthouse 9.5.0

■ Custom throttling

■ Single page load

■ Using Chromium 102.0.5005.124 with devtools

Generated by **Lighthouse** 9.5.0 | [File an issue](#)

Reflection

My reflection over these statistics is that two of the assessed categories are rated so highly performing and the rest also doesn't seem to be in need of some radical improvement which gives a feeling of "too good to be true" especially that I know that the Web App is not overloaded with static content and the backend/database doesn't hold intensive and complex data which is resulting for the app to perform and respond fast with the user interactions.

Moreover, the generated report was extracted from a Web App running on a local server and not hosted on the cloud which also has resulted in a performing Web App.

My future approaches to ensure that the web app is fast and performing is to generate the report while the Web App is hosted on the cloud and loaded with actual data of different types.