

98



55

Performance

Accessibility

**Best Practices** 

SE0



# Performance

Values are estimated and may vary. The <u>performance</u> <u>score is calculated</u> directly from these metrics. <u>See</u> calculator.

0-49

50-89

90-100



Expand view

**METRICS** 

First Contentful Paint

1.9 s

Speed Index

1.9 s

Largest Contentful Paint

2.0 s

Time to Interactive

2.0 s

Total Blocking Time

10 ms

Cumulative Layout Shift

0

# View Treemap



Show audits relevant to: All FCP TBT LCP CLS

**OPPORTUNITIES** 

Opportunity Estimated Savings

1.15 s ^

Resources are blocking the first paint of your page. Consider delivering critical JS/CSS inline and deferring all non-critical JS/styles. <u>Learn more</u>. FCP LCP

URL	Transfer Size	Potential Savings
3.5.1/jquery.min.js (ajax.googleapis.com)	31.3 KiB	1,080 ms
js/jquery.dataTables.min.js (cdn.datatables.net)	29.0 KiB	1,080 ms

These suggestions can help your page load faster. They don't directly affect the Performance score.

### DIAGNOSTICS

Does not have a <meta name="viewport"> tag with width or initial-scale

No `<meta name="viewport"> `tag found

A `<meta name="viewport">` not only optimizes your app for mobile screen sizes, but also prevents a 300 millisecond delay to user input. Learn more. TBT

First Contentful Paint (3G) − 4030 ms

First Contentful Paint 3G marks the time at which the first text or image is painted while on a 3G network. Learn more.

○ Avoid chaining critical requests - 5 chains found

The Critical Request Chains below show you what resources are loaded with a high priority.

Consider reducing the length of chains, reducing the download size of resources, or deferring the download of unnecessary resources to improve page load. <u>Learn more</u>. FCP [LCP]

Maximum critical path latency: 300 ms

Initial Navigation

/employee-list.html (leonard-wojcik-p14-jquery-version.netlify.app)

/app.css (leonard-wojcik-p14-jquery-version.netlify.app) - 40 ms, 0.68 KiB

...3.5.1/jquery.min.js (ajax.googleapis.com) - 10 ms, 31.35 KiB

...js/jquery.dataTables.min.js (cdn.datatables.net) - 50 ms, 28.96 KiB

/employee-list.js (leonard-wojcik-p14-jquery-version.netlify.app) - 150 ms, 1.03 KiB

...css/jquery.dataTables.min.css (cdn.datatables.net) - 30 ms, 2.65 KiB

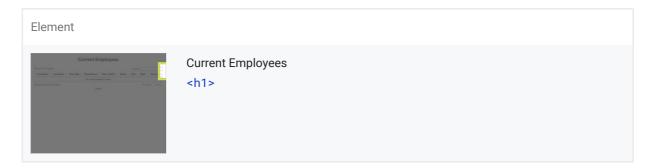
○ Keep request counts low and transfer sizes small - 8 requests • 67 KiB

To set budgets for the quantity and size of page resources, add a budget.json file. Learn more.

Resource Type	Requests	Transfer Size
Total	8	66.8 KiB
Script	3	61.3 KiB
Stylesheet	2	3.3 KiB
Image	2	1.2 KiB
Document	1	1.0 KiB
Media	0	0.0 KiB
Font	0	0.0 KiB
Other	0	0.0 KiB
Third-party	5	64.1 KiB

○ Largest Contentful Paint element − 1 element found

This is the largest contentful element painted within the viewport. Learn More [LCP]



○ Avoid large layout shifts - 1 element found

These DOM elements contribute most to the CLS of the page. [CLS]



O Avoid long main-thread tasks — 2 long tasks found

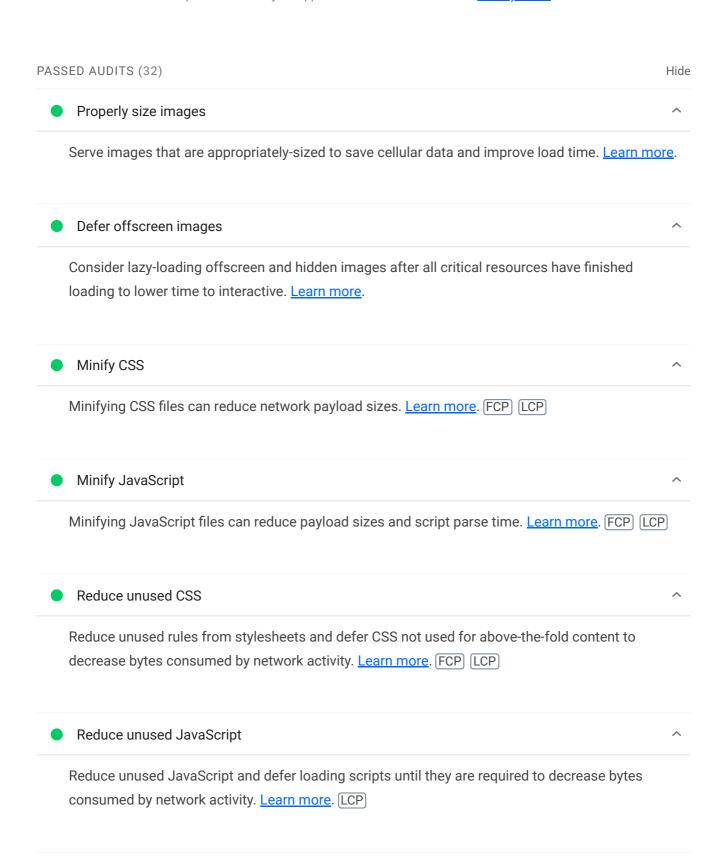
Lists the longest tasks on the main thread, useful for identifying worst contributors to input delay.

<u>Learn more (TBT)</u>

URL Start Time Duration

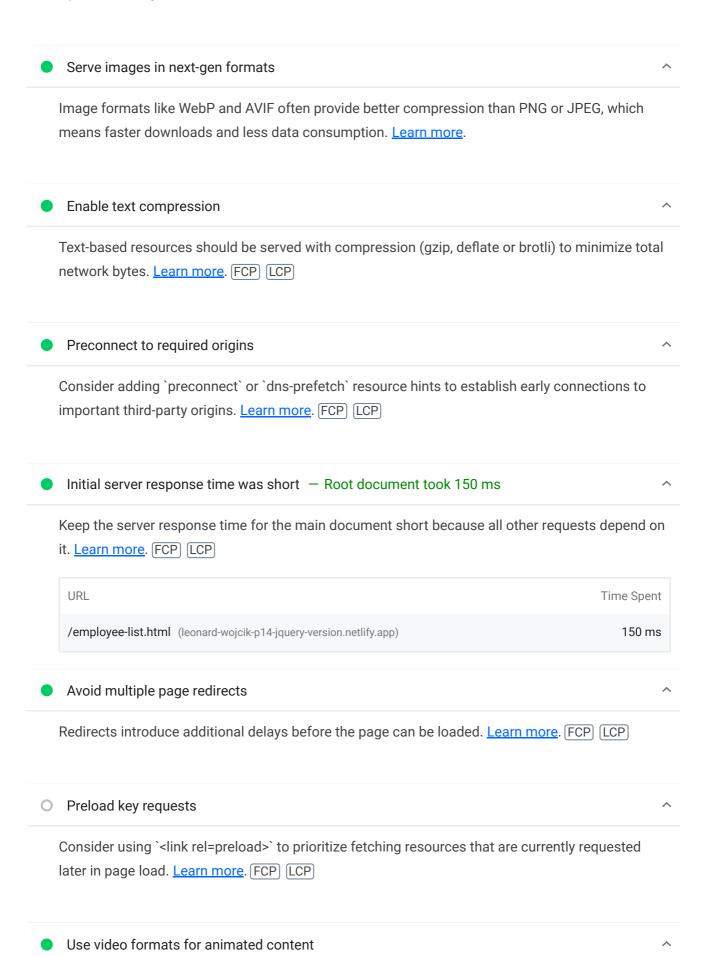
URL	Start Time	Duration
3.5.1/jquery.min.js (ajax.googleapis.com)	1,930 ms	76 ms
3.5.1/jquery.min.js (ajax.googleapis.com)	1,860 ms	56 ms

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



Efficiently encode images

Optimized images load faster and consume less cellular data. Learn more.



Large GIFs are inefficient for delivering animated content. Consider using MPEG4/WebM videos for animations and PNG/WebP for static images instead of GIF to save network bytes. <u>Learn more [LCP]</u>

### Remove duplicate modules in JavaScript bundles

Remove large, duplicate JavaScript modules from bundles to reduce unnecessary bytes consumed by network activity. TBT

## Avoid serving legacy JavaScript to modern browsers

Polyfills and transforms enable legacy browsers to use new JavaScript features. However, many aren't necessary for modern browsers. For your bundled JavaScript, adopt a modern script deployment strategy using module/nomodule feature detection to reduce the amount of code shipped to modern browsers, while retaining support for legacy browsers. Learn More TBT

## Preload Largest Contentful Paint image

Preload the image used by the LCP element in order to improve your LCP time. Learn more. [LCP]

### Avoids enormous network payloads — Total size was 67 KiB

Large network payloads cost users real money and are highly correlated with long load times.

<u>Learn more</u>. [LCP]

## ✓ Show 3rd-party resources (5)

URL	Transfer Size
3.5.1/jquery.min.js (ajax.googleapis.com)	31.3 KiB
js/jquery.dataTables.min.js (cdn.datatables.net)	29.0 KiB
css/jquery.dataTables.min.css (cdn.datatables.net)	2.6 KiB
/employee-list.html (leonard-wojcik-p14-jquery-version.netlify.app)	1.0 KiB
/employee-list.js (leonard-wojcik-p14-jquery-version.netlify.app)	1.0 KiB
/app.css (leonard-wojcik-p14-jquery-version.netlify.app)	0.7 KiB
images/sort_both.png (cdn.datatables.net)	0.6 KiB

URL	Transfer Size
images/sort_asc.png (cdn.datatables.net)	0.6 KiB

● Uses efficient cache policy on static assets − 0 resources found

A long cache lifetime can speed up repeat visits to your page. Learn more.

● Avoids an excessive DOM size − 34 elements

A large DOM will increase memory usage, cause longer <u>style calculations</u>, and produce costly <u>layout reflows</u>. <u>Learn more</u>. <u>(TBT)</u>

Statistic	Element	Value
Total DOM Elements		34
Maximum DOM Depth	10 <option value="10"></option>	7
Maximum Child Elements	First Name Last Name Start Date Department Date of Birth Street City State Zip	9

User Timing marks and measures

Consider instrumenting your app with the User Timing API to measure your app's real-world performance during key user experiences. <u>Learn more</u>.

● JavaScript execution time − 0.2 s

Consider reducing the time spent parsing, compiling, and executing JS. You may find delivering smaller JS payloads helps with this. <u>Learn more</u>. TBT

✓ Show 3rd-party resources (1)

URL	Total CPU Time	Script Evaluation	Script Parse
3.5.1/jquery.min.js (ajax.googleapis.com)	213 ms	171 ms	5 ms
/employee-list.html (leonard-wojcik-p14-jquery-version.netlify.app)	86 ms	7 ms	4 ms

Minimizes main-thread work - 0.4 s

Consider reducing the time spent parsing, compiling and executing JS. You may find delivering smaller JS payloads helps with this. <u>Learn more</u> TBT

Category	Time Spent
Script Evaluation	203 ms
Other	69 ms
Style & Layout	52 ms
Parse HTML & CSS	15 ms
Script Parsing & Compilation	13 ms
Rendering	12 ms

All text remains visible during webfont loads

Leverage the font-display CSS feature to ensure text is user-visible while webfonts are loading. <u>Learn more</u>. FCP [LCP]

● Minimize third-party usage — Third-party code blocked the main thread for 70 ms

Third-party code can significantly impact load performance. Limit the number of redundant third-party providers and try to load third-party code after your page has primarily finished loading.

<u>Learn more</u>. (TBT)

Third-Party	Transfer Size	Main-Thread Blocking Time
Google CDN	31 KiB	71 ms
3.5.1/jquery.min.js (ajax.googleapis.com)	31 KiB	71 ms

Lazy load third-party resources with facades

Some third-party embeds can be lazy loaded. Consider replacing them with a facade until they are required. <u>Learn more</u>. <u>TBT</u>

Largest Contentful Paint image was not lazily loaded

Above-the-fold images that are lazily loaded render later in the page lifecycle, which can delay the largest contentful paint. <u>Learn more</u>.

Uses passive listeners to improve scrolling performance

Consider marking your touch and wheel event listeners as `passive` to improve your page's scroll performance. <u>Learn more</u>.

### Avoids document.write()

For users on slow connections, external scripts dynamically injected via `document.write()` can delay page load by tens of seconds. <u>Learn more</u>.

Avoid non-composited animations

Animations which are not composited can be janky and increase CLS. <u>Learn more</u> CLS

Image elements have explicit width and height

Set an explicit width and height on image elements to reduce layout shifts and improve CLS. <u>Learn</u> more (CLS)

#### Avoids unload event listeners

The `unload` event does not fire reliably and listening for it can prevent browser optimizations like the Back-Forward Cache. Use `pagehide` or `visibilitychange` events instead. <u>Learn more</u>



## Accessibility

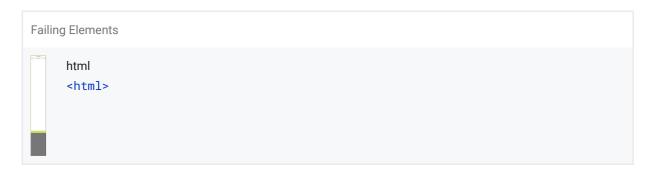
These checks highlight opportunities to improve the accessibility of your web app. Only a subset of accessibility issues can be automatically detected so manual testing is also encouraged.

#### INTERNATIONALIZATION AND LOCALIZATION



<html> element does not have a [lang] attribute

If a page doesn't specify a lang attribute, a screen reader assumes that the page is in the default language that the user chose when setting up the screen reader. If the page isn't actually in the default language, then the screen reader might not announce the page's text correctly. <u>Learn more</u>.



These are opportunities to improve the interpretation of your content by users in different locales.

ADDITIONAL ITEMS TO MANUALLY CHECK (10)	Hide
The page has a logical tab order	^
Tabbing through the page follows the visual layout. Users cannot focus elements that are offscreen. <u>Learn more</u> .	
Interactive controls are keyboard focusable	^
Custom interactive controls are keyboard focusable and display a focus indicator. Learn mo	<u>re</u> .
Interactive elements indicate their purpose and state	^
Interactive elements, such as links and buttons, should indicate their state and be distinguished from non-interactive elements. <u>Learn more</u> .	hable
O The user's focus is directed to new content added to the page	^
If new content, such as a dialog, is added to the page, the user's focus is directed to it. <u>Learn</u>	<u>more</u> .
O User focus is not accidentally trapped in a region	^
A user can tab into and out of any control or region without accidentally trapping their focus more.	. <u>Learn</u>
O Custom controls have associated labels	^

Custom interactive controls have associated labels, provided by aria-label or aria-labelledby. <u>Learn</u> more.

Custom controls have ARIA roles

Custom interactive controls have appropriate ARIA roles. Learn more.

Visual order on the page follows DOM order

DOM order matches the visual order, improving navigation for assistive technology. Learn more.

Offscreen content is hidden from assistive technology

Offscreen content is hidden with display: none or aria-hidden=true. Learn more.

O HTML5 landmark elements are used to improve navigation

Landmark elements (<main>, <nav>, etc.) are used to improve the keyboard navigation of the page for assistive technology. <u>Learn more</u>.

These items address areas which an automated testing tool cannot cover. Learn more in our guide on <u>conducting an accessibility review</u>.

PASSED AUDITS (19)

• [aria-\*] attributes match their roles

Each ARIA `role` supports a specific subset of `aria-\*` attributes. Mismatching these invalidates the `aria-\*` attributes. <u>Learn more</u>.

[aria-hidden="true"] is not present on the document <body>

Assistive technologies, like screen readers, work inconsistently when `aria-hidden="true"` is set on the document `<body>`. Learn more.

• [role]s have all required [aria-\*] attributes

Some ARIA roles have required attributes that describe the state of the element to screen readers. <u>Learn more</u>.

Elements with an ARIA [role] that require children to contain a specific [role] have all

Hide

required children.

Some ARIA parent roles must contain specific child roles to perform their intended accessibility functions. <u>Learn more</u>.

• [role]s are contained by their required parent element

Some ARIA child roles must be contained by specific parent roles to properly perform their intended accessibility functions. <u>Learn more</u>.

• [role] values are valid

ARIA roles must have valid values in order to perform their intended accessibility functions. <u>Learn</u> more.

• [aria-\*] attributes have valid values

Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid values. <u>Learn</u> more.

• [aria-\*] attributes are valid and not misspelled

Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid names. Learn more.

ARIA IDs are unique

The value of an ARIA ID must be unique to prevent other instances from being overlooked by assistive technologies. <u>Learn more</u>.

Form elements have associated labels

Labels ensure that form controls are announced properly by assistive technologies, like screen readers. Learn more.

The page contains a heading, skip link, or landmark region

Adding ways to bypass repetitive content lets keyboard users navigate the page more efficiently. Learn more.

Background and foreground colors have a sufficient contrast ratio

Low-contrast text is difficult or impossible for many users to read. Learn more.

Document has a <title> element

The title gives screen reader users an overview of the page, and search engine users rely on it heavily to determine if a page is relevant to their search. <u>Learn more</u>.

• [id] attributes on active, focusable elements are unique

All focusable elements must have a unique `id` to ensure that they're visible to assistive technologies. <u>Learn more</u>.

Links have a discernible name

Link text (and alternate text for images, when used as links) that is discernible, unique, and focusable improves the navigation experience for screen reader users. <u>Learn more</u>.

No element has a [tabindex] value greater than 0

A value greater than 0 implies an explicit navigation ordering. Although technically valid, this often creates frustrating experiences for users who rely on assistive technologies. <u>Learn more</u>.

Cells in a element that use the [headers] attribute refer to table cells within the same table.

Screen readers have features to make navigating tables easier. Ensuring `` cells using the `[headers]` attribute only refer to other cells in the same table may improve the experience for screen reader users. Learn more.

elements and elements with [role="columnheader"/"rowheader"] have data cells they describe.

Screen readers have features to make navigating tables easier. Ensuring table headers always refer to some set of cells may improve the experience for screen reader users. <u>Learn more</u>.

Heading elements appear in a sequentially-descending order Properly ordered headings that do not skip levels convey the semantic structure of the page, making it easier to navigate and understand when using assistive technologies. Learn more. NOT APPLICABLE (24) Hide [accesskey] values are unique Access keys let users quickly focus a part of the page. For proper navigation, each access key must be unique. Learn more. O button, link, and menuitem elements have accessible names When an element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn more. [aria-hidden="true"] elements do not contain focusable descendents Focusable descendents within an `[aria-hidden="true"]` element prevent those interactive elements from being available to users of assistive technologies like screen readers. Learn more. ARIA input fields have accessible names When an input field doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn more. ARIA meter elements have accessible names When an element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn more. ARIA progressbar elements have accessible names

When a 'progressbar' element doesn't have an accessible name, screen readers announce it with a

generic name, making it unusable for users who rely on screen readers. Learn more.

ARIA toggle fields have accessible names

When a toggle field doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn more. ARIA tooltip elements have accessible names When an element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn more. ARIA treeitem elements have accessible names When an element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn more. Buttons have an accessible name When a button doesn't have an accessible name, screen readers announce it as "button", making it unusable for users who rely on screen readers. Learn more. <dl>'s contain only properly-ordered <dt> and <dd> groups, <script>, <template> or <div> 0 elements. When definition lists are not properly marked up, screen readers may produce confusing or inaccurate output. Learn more. O Definition list items are wrapped in <dl> elements Definition list items ('<dt>' and '<dd>') must be wrapped in a parent '<dl>' element to ensure that screen readers can properly announce them. Learn more. No form fields have multiple labels Form fields with multiple labels can be confusingly announced by assistive technologies like screen readers which use either the first, the last, or all of the labels. Learn more. <frame> or <iframe> elements have a title Screen reader users rely on frame titles to describe the contents of frames. Learn more. <html> element has a valid value for its [lang] attribute Specifying a valid BCP 47 language helps screen readers announce text properly. Learn more.

Image elements have [alt] attributes

Informative elements should aim for short, descriptive alternate text. Decorative elements can be ignored with an empty alt attribute. <u>Learn more</u>.

<input type="image"> elements have [alt] text

When an image is being used as an `<input>` button, providing alternative text can help screen reader users understand the purpose of the button. <u>Learn more</u>.

Lists contain only elements and script supporting elements (<script> and <template>).

Screen readers have a specific way of announcing lists. Ensuring proper list structure aids screen reader output. <u>Learn more</u>.

O List items (<1i>) are contained within or parent elements

Screen readers require list items (``) to be contained within a parent `` or `` to be announced properly. <u>Learn more</u>.

The document does not use <meta http-equiv="refresh">

Users do not expect a page to refresh automatically, and doing so will move focus back to the top of the page. This may create a frustrating or confusing experience. <u>Learn more</u>.

[user-scalable="no"] is not used in the <meta name="viewport"> element and the [maximum-scale] attribute is not less than 5.

Disabling zooming is problematic for users with low vision who rely on screen magnification to properly see the contents of a web page. Learn more.

O <object> elements have alternate text

Screen readers cannot translate non-text content. Adding alternate text to `<object>` elements helps screen readers convey meaning to users. <u>Learn more</u>.

O [lang] attributes have a valid value

Specifying a valid <u>BCP 47 language</u> on elements helps ensure that text is pronounced correctly by a screen reader. <u>Learn more</u>.

<video> elements contain a <track> element with [kind="captions"]

When a video provides a caption it is easier for deaf and hearing impaired users to access its information. <u>Learn more</u>.



#### **BROWSER COMPATIBILITY**

A

Page lacks the HTML doctype, thus triggering quirks-mode Document must contain a doctype

Specifying a doctype prevents the browser from switching to quirks-mode. Learn more.

#### TRUST AND SAFETY

Ensure CSP is effective against XSS attacks

A strong Content Security Policy (CSP) significantly reduces the risk of cross-site scripting (XSS) attacks. <u>Learn more</u>

Description	Directive	Severity
No CSP found in enforcement mode		High

#### **GENERAL**

Detected JavaScript libraries

All front-end JavaScript libraries detected on the page. Learn more.

Name Version
jQuery 3.5.1

PASSED AUDITS (12) Hide

### Uses HTTPS

All sites should be protected with HTTPS, even ones that don't handle sensitive data. This includes avoiding <u>mixed content</u>, where some resources are loaded over HTTP despite the initial request being served over HTTPS. HTTPS prevents intruders from tampering with or passively listening in on the communications between your app and your users, and is a prerequisite for HTTP/2 and many new web platform APIs. <u>Learn more</u>.

Avoids requesting the geolocation permission on page load

Users are mistrustful of or confused by sites that request their location without context. Consider tying the request to a user action instead. <u>Learn more</u>.

Avoids requesting the notification permission on page load

Users are mistrustful of or confused by sites that request to send notifications without context. Consider tying the request to user gestures instead. <u>Learn more</u>.

Avoids front-end JavaScript libraries with known security vulnerabilities

Some third-party scripts may contain known security vulnerabilities that are easily identified and exploited by attackers. <u>Learn more</u>.

Allows users to paste into password fields

Preventing password pasting undermines good security policy. Learn more.

Displays images with correct aspect ratio

Image display dimensions should match natural aspect ratio. Learn more.

Serves images with appropriate resolution

Image natural dimensions should be proportional to the display size and the pixel ratio to maximize image clarity. Learn more.

# Properly defines charset

A character encoding declaration is required. It can be done with a `<meta>` tag in the first 1024 bytes of the HTML or in the Content-Type HTTP response header. <u>Learn more</u>.

### Avoids deprecated APIs

Deprecated APIs will eventually be removed from the browser. Learn more.

## No browser errors logged to the console

Errors logged to the console indicate unresolved problems. They can come from network request failures and other browser concerns. Learn more

## No issues in the Issues panel in Chrome Devtools

Issues logged to the `Issues` panel in Chrome Devtools indicate unresolved problems. They can come from network request failures, insufficient security controls, and other browser concerns. Open up the Issues panel in Chrome DevTools for more details on each issue.

### Page has valid source maps

Source maps translate minified code to the original source code. This helps developers debug in production. In addition, Lighthouse is able to provide further insights. Consider deploying source maps to take advantage of these benefits. <u>Learn more</u>.

NOT APPLICABLE (1) Hide

### O Fonts with font-display: optional are preloaded

Preload `optional` fonts so first-time visitors may use them. Learn more

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 <a href="Core Web Vitals">Core Web Vitals</a>. <a href="Learn more">Learn more</a>.

#### MOBILE FRIENDLY



Does not have a <meta name="viewport"> tag with width or initial-scale

No `<meta name="viewport">` tag found

A `<meta name="viewport">` not only optimizes your app for mobile screen sizes, but also prevents a 300 millisecond delay to user input. Learn more. TBT



Document doesn't use legible font sizes

Text is illegible because there's no viewport meta tag optimized for mobile screens.

Font sizes less than 12px are too small to be legible and require mobile visitors to "pinch to zoom" in order to read. Strive to have >60% of page text ≥12px. <u>Learn more</u>.

Tap targets are not sized appropriately



Tap targets are too small because there's no viewport meta tag optimized for mobile screens

Interactive elements like buttons and links should be large enough (48x48px), and have enough space around them, to be easy enough to tap without overlapping onto other elements. <u>Learn</u> more.

Make sure your pages are mobile friendly so users don't have to pinch or zoom in order to read the content pages. <u>Learn</u> more.

#### CONTENT BEST PRACTICES



Document does not have a meta description

Meta descriptions may be included in search results to concisely summarize page content. <u>Learn</u> more.

Format your HTML in a way that enables crawlers to better understand your app's content.

CRAWLING AND INDEXING



Search engines may use `href` attributes on links to crawl websites. Ensure that the `href` attribute of anchor elements links to an appropriate destination, so more pages of the site can be discovered. Learn More

Uncrawlable Link

Previous

<a class="paginate\_button previous disabled" aria-controls="employee-table" data-dt-idx="0" tabindex="-1" id="employee-table\_previous">

Next

<a class="paginate\_button next disabled" aria-controls="employee-table" data-dt-idx="1" tabindex="-1" id="employee-table\_next">

To appear in search results, crawlers need access to your app.

### ADDITIONAL ITEMS TO MANUALLY CHECK (1)

Hide

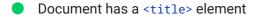
Structured data is valid

^

Run the <u>Structured Data Testing Tool</u> and the <u>Structured Data Linter</u> to validate structured data. Learn more.

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

PASSED AUDITS (6) Hide



The title gives screen reader users an overview of the page, and search engine users rely on it heavily to determine if a page is relevant to their search. <u>Learn more</u>.

Page has successful HTTP status code



Pages with unsuccessful HTTP status codes may not be indexed properly. Learn more.

Links have descriptive text



Descriptive link text helps search engines understand your content. Learn more.

•	Page isn't blocked from indexing	^
	Search engines are unable to include your pages in search results if they don't have permission to crawl them. <u>Learn more</u> .	to
•	Document has a valid hreflang	^
	hreflang links tell search engines what version of a page they should list in search results for a given language or region. <u>Learn more</u> .	
•	Document avoids plugins	^
	Search engines can't index plugin content, and many devices restrict plugins or don't support them. <u>Learn more</u> .	
NOT	APPLICABLE (3)	Hide
NOT	APPLICABLE (3)  robots.txt is valid	Hide
NOT		Hide
NOT	robots.txt is valid  If your robots.txt file is malformed, crawlers may not be able to understand how you want your	Hide
NOT	robots.txt is valid  If your robots.txt file is malformed, crawlers may not be able to understand how you want your website to be crawled or indexed. <a href="Learn more"><u>Learn more</u></a> .	^
NOT	robots.txt is valid  If your robots.txt file is malformed, crawlers may not be able to understand how you want your website to be crawled or indexed. Learn more.  Image elements have [alt] attributes  Informative elements should aim for short, descriptive alternate text. Decorative elements can be	^

Captured at Oct 5, 2022, 8:32 PM

Emulated Moto G4 with

Single page load

Lighthouse 9.6.6

Initial page load

Unknown

Using HeadlessChromium

102 0 5005 115 with Ir

Generated by **Lighthouse** 9.6.6 | File an issue