https://elducati.github.io/todo-list-app/

▲ 0–49 50–89 90–100

There were issues affecting this run of Lighthouse:

- No ads were requested when fetching this page.
- No ads were rendered when rendering this page.
- The GPT tag was not requested.
- No ads were rendered when rendering this page.

Performance

Metrics

First Contentful Paint — 1.4 s
First Contentful Paint marks the time at which the first text or image is painted. Learn more.

Time to Interactive — 1.6 s
Time to interactive is the amount of time it takes for the page to become fully interactive. Learn more.

Speed Index — 4.4 s
Speed Index shows how quickly the contents of a page are visibly populated. Learn more.

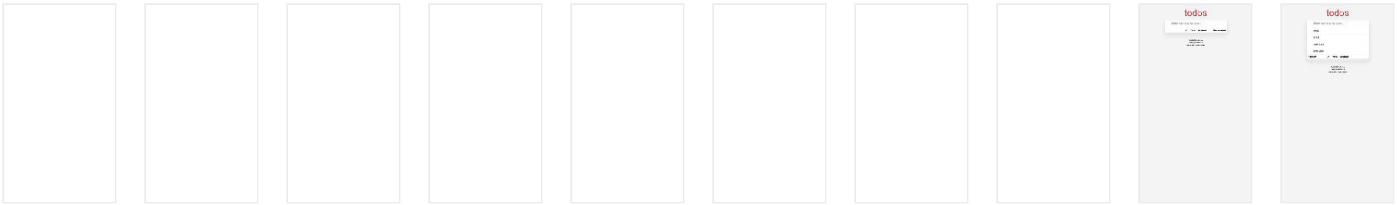
Total Blocking Time — 70 ms
Sum of all time periods between FCP and Time to Interactive, when task length exceeded 50ms, expressed in milliseconds. Learn more.

Largest Contentful Paint — 1.4 s
Largest Contentful Paint marks the time at which the largest text or image is painted. Learn More

Cumulative Layout Shift — 0.011
Cumulative Layout Shift measures the movement of visible elements within the viewport. Learn more.

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

View Original Trace



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

Avoid chaining critical requests — 10 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. Learn more.

Maximum critical path latency: **3,200 ms**

Initial Navigation

- /todo-list-app/ (elducati.github.io)
  - …css/base.css (elducati.github.io) **- 350 ms, 0.84 KiB**
  - …css/index.css (elducati.github.io) **- 440 ms, 2.44 KiB**
  - …todomvc-common/base.js (elducati.github.io) **- 160 ms, 1.32 KiB**
  - …js/helpers.js (elducati.github.io) **- 440 ms, 0.81 KiB**
  - …js/store.js (elducati.github.io) **- 420 ms, 1.67 KiB**
  - …js/model.js (elducati.github.io) **- 480 ms, 1.24 KiB**
  - …js/template.js (elducati.github.io) **- 440 ms, 1.32 KiB**
  - …js/view.js (elducati.github.io) **- 410 ms, 1.74 KiB**
  - …js/controller.js (elducati.github.io) **- 990 ms, 2.97 KiB**
  - …js/app.js (elducati.github.io) **- 440 ms, 0.48 KiB**

User Timing marks and measures — 2 user timings

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

Name	Type	Start Time	Duration
@grammarly-extension:checkScriptInitStart	Mark	3,289.92 ms	
@grammarly-extension:checkScriptInitEnd	Mark	3,299.61 ms	

Keep request counts low and transfer sizes small — 11 requests • 16 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	11	15.8 KiB
Script	8	11.5 KiB
Stylesheet	2	3.3 KiB
Document	1	1 KiB
Image	0	0 KiB
Media	0	0 KiB
Font	0	0 KiB
Other	0	0 KiB
Third-party	0	0 KiB

Largest Contentful Paint element — 1 element found

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

Element

h1

Avoid large layout shifts — 2 elements found

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

Element	CLS Contribution
::before <::before>	0.006
footer.info	0.005

Avoid long main-thread tasks — 4 long tasks found

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

Show 3rd-party resources (0)

URL	Start Time	Duration
/todo-list-app/ (elducati.github.io)	1,145 ms	220 ms
chrome-extension://kbfnbcaeplbcioakkpcpgfkobkghlhen/src/js/Grammarly-check.js	1,582 ms	100 ms
chrome-extension://hgmhmanijnjhaffoampdlllchpolkdnj/js/lib/jquery.min.js	1,500 ms	82 ms
chrome-extension://djgfpbegnihdgbngpmhjnlchgglngcdn/libs/jquery.js	1,424 ms	76 ms

Passed audits (29)

Eliminate render-blocking resources

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

Properly size images

Serve images that are appropriately-sized to save cellular data and improve load time. Learn more.

Defer offscreen images

Consider lazy-loading offscreen and hidden images after all critical resources have finished loading to lower time to interactive. Learn more.

Minify CSS

Minifying CSS files can reduce network payload sizes. Learn more.

Minify JavaScript

Minifying JavaScript files can reduce payload sizes and script parse time. Learn more.

Remove unused CSS

Remove dead rules from stylesheets and defer the loading of CSS not used for above-the-fold content to reduce unnecessary bytes consumed by network activity. Learn more.

Remove unused JavaScript

Remove unused JavaScript to reduce bytes consumed by network activity. Learn more.

Efficiently encode images

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

Serve images in next-gen formats

Image formats like JPEG 2000, JPEG XR, and WebP often provide better compression than PNG or JPEG, which means faster downloads and less data consumption. Learn more.

Enable text compression

Text-based resources should be served with compression (gzip, deflate or brotli) to minimize total network bytes. Learn more.

Preconnect to required origins

Consider adding `preconnect` or `dns-prefetch` resource hints to establish early connections to important third-party origins. Learn more.

Initial server response time was short — Root document took 450 ms

Keep the server response time for the main document short because all other requests depend on it. Learn more.

Show 3rd-party resources (0)

URL	Time Spent
/todo-list-app/ (elducati.github.io)	450 ms

Avoid multiple page redirects

Redirects introduce additional delays before the page can be loaded. Learn more.

Preload key requests

Consider using `<link rel=preload>` to prioritize fetching resources that are currently requested later in page load. Learn more.

Use HTTP/2

HTTP/2 offers many benefits over HTTP/1.1, including binary headers, multiplexing, and server push. Learn more.

Use video formats for animated content

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. Learn more

Remove duplicate modules in JavaScript bundles

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

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

Avoids enormous network payloads — Total size was 16 KiB

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

☐ ~~Show 3rd-party resources~~ (0)

URL	Transfer Size
…js/controller.js (elducati.github.io)	3 KiB
…css/index.css (elducati.github.io)	2.4 KiB
…js/view.js (elducati.github.io)	1.7 KiB
…js/store.js (elducati.github.io)	1.7 KiB
…todomvc-common/base.js (elducati.github.io)	1.3 KiB
…js/template.js (elducati.github.io)	1.3 KiB
…js/model.js (elducati.github.io)	1.2 KiB
/todo-list-app/ (elducati.github.io)	1 KiB
…css/base.css (elducati.github.io)	0.8 KiB

URL	Transfer Size
…js/helpers.js (elducati.github.io)	0.8 KiB

Uses efficient cache policy on static assets — 9 resources found

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

Show 3rd-party resources (0)

URL	Cache TTL	Transfer Size
…js/controller.js (elducati.github.io)	10 m	3 KiB
…css/index.css (elducati.github.io)	10 m	2 KiB
…js/view.js (elducati.github.io)	10 m	2 KiB
…js/store.js (elducati.github.io)	10 m	2 KiB
…js/template.js (elducati.github.io)	10 m	1 KiB
…js/model.js (elducati.github.io)	10 m	1 KiB
…css/base.css (elducati.github.io)	10 m	1 KiB
…js/helpers.js (elducati.github.io)	10 m	1 KiB
…js/app.js (elducati.github.io)	10 m	0 KiB

Avoids an excessive DOM size — 51 elements

A large DOM will increase memory usage, cause longer style calculations, and produce costly layout reflows. Learn more.

Statistic	Element	Value
Total DOM Elements		51
Maximum DOM Depth	`<input class="toggle" type="checkbox">`	7
Maximum Child Elements	`<body data-new-gr-c-s-check-loaded="14.991.0" data-gr-ext-installed="" cz-shortcut-listen="true">`	10

JavaScript execution time — 0.4 s

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

Show 3rd-party resources (0)

URL	Total CPU Time	Script Evaluation	Script Parse
/todo-list-app/ (elducati.github.io)	366 ms	28 ms	105 ms
`Unattributable`	203 ms	10 ms	1 ms
`chrome-extension://kbfnbcaeplbcioakkpcpgfkobkghlhen/src/js/Grammarly-check.js`	104 ms	75 ms	28 ms

URL	Total CPU Time	Script Evaluation	Script Parse
chrome-extension://djgfpbegnihdgbngpmhjnlchgglngcdn/libs/jquery.js	66 ms	47 ms	17 ms
chrome-extension://hgmhmanijnjhaffoampdlllchpolkdnj/js/lib/jquery.min.js	64 ms	34 ms	23 ms

Minimizes main-thread work — 0.9 s

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

Category	Time Spent
Other	293 ms
Script Evaluation	244 ms
Script Parsing & Compilation	210 ms
Parse HTML & CSS	121 ms
Style & Layout	39 ms
Rendering	25 ms

All text remains visible during webfont loads

Leverage the font-display CSS feature to ensure text is user-visible while webfonts are loading. Learn more.

Minimize third-party usage

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. Learn more.

Uses passive listeners to improve scrolling performance

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

Avoids `document.write()`

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

Avoid non-composited animations

Animations which are not composited can be janky and increase CLS. Learn more

Image elements have explicit `width` and `height`

Set an explicit width and height on image elements to reduce layout shifts and improve CLS. Learn more

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.

Names and labels — These are opportunities to improve the semantics of the controls in your application. This may enhance the experience for users of assistive technology, like a screen reader.

▲ Form elements do not have associated labels

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

Failing Elements

input.new-todo

input.toggle

input.toggle

input.toggle

input.toggle

Additional items to manually check (10) — These items address areas which an automated testing tool cannot cover. Learn more in our guide on conducting an accessibility review.

The page has a logical tab order

Tabbing through the page follows the visual layout. Users cannot focus elements that are offscreen. Learn more.

Interactive controls are keyboard focusable

Custom interactive controls are keyboard focusable and display a focus indicator. Learn more.

Interactive elements indicate their purpose and state

Interactive elements, such as links and buttons, should indicate their state and be distinguishable from non-interactive elements. Learn more.

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. Learn more.

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. Learn more.

Custom controls have associated labels

Custom interactive controls have associated labels, provided by aria-label or aria-labelledby. Learn 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.

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. Learn more.

Passed audits (11)

`[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.

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. 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. Learn more.

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.

`<html>` element has 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. 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.

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. Learn more.

Lists contain only `<li>` 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. Learn more.

List items (`<li>`) are contained within `<ul>` or `<ol>` parent elements

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

Not applicable (29)

`[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.

`[aria-*]` attributes match their roles

Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributes. 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.

`[role]`s have all required `[aria-*]` attributes

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

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

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

`[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. Learn more.

`[role]` values are valid

ARIA roles must have valid values in order to perform their intended accessibility functions. 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-*]` attributes have valid values

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

`[aria-*]` attributes are valid and not misspelled

Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid names. 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>` elements.

When definition lists are not properly marked up, screen readers may produce confusing or inaccurate output. Learn more.

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.

`[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. 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.

Image elements have `[alt]` attributes

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

`<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. Learn more.

Presentational `<table>` elements avoid using `<th>`, `<caption>` or the `[summary]` attribute.

A table being used for layout purposes should not include data elements, such as the th or caption elements or the summary attribute, because this can create a confusing experience for screen reader users. Learn more.

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. Learn more.

`[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.

`<object>` elements have `[alt]` text

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

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. Learn more.

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

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

`<th>` 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. Learn more.

`[lang]` attributes have a valid value

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

`<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. Learn more.

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

Audio descriptions provide relevant information for videos that dialogue cannot, such as facial expressions and scenes. Learn more.

Best Practices

General

▲ Browser errors were 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

Show 3rd-party resources (0)

URL	Description
…todomvc-common/base.js (elducati.github.io)	Failed to load resource: the server responded with a status of 404 ()
…todomvc-common/base.js (elducati.github.io)	Failed to load resource: the server responded with a status of 404 ()
/todo-list-app/ (elducati.github.io)	Unchecked runtime.lastError: The message port closed before a response was received.
/todo-list-app/ (elducati.github.io)	Unchecked runtime.lastError: The message port closed before a response was received.

Passed audits (15)

Uses HTTPS

All sites should be protected with HTTPS, even ones that don't handle sensitive data. This includes avoiding mixed content, 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. Learn more.

Links to cross-origin destinations are safe

Add `rel="noopener"` or `rel="noreferrer"` to any external links to improve performance and prevent security vulnerabilities. Learn more.

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. Learn more.

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. Learn more.

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. Learn more.

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.

Page has the HTML doctype

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

Avoids `unload` event listeners

The `unload` event does not fire reliably and listening for it can prevent browser optimizations like the Back-Forward Cache. Consider using the `pagehide` or `visibilitychange` events instead. Learn More

Avoids Application Cache

Application Cache is deprecated. Learn more.

Detected JavaScript libraries

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

Avoids deprecated APIs

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

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. Learn more.

Not applicable (1)

Fonts with `font-display: optional` are preloaded

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

SEO

These checks ensure that your page is optimized for search engine results ranking. There are additional factors Lighthouse does not check

that may affect your search ranking. Learn more.

Mobile Friendly — Make sure your pages are mobile friendly so users don't have to pinch or zoom in order to read the content pages. Learn more.

▲ Does not have a `<meta name="viewport">` tag with `width` or `initial-scale` No `<meta name="viewport">` tag found

Add a `<meta name="viewport">` tag to optimize your app for mobile screens. Learn more.

▲ 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. Learn more.

▲ 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. Learn more.

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

▲ Document does not have a meta description

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

Additional items to manually check (1) — Run these additional validators on your site to check additional SEO best practices.

Structured data is valid

Run the Structured Data Testing Tool and the Structured Data Linter to validate structured data. Learn more.

Passed audits (7)

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. Learn more.

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.

Links are crawlable

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

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. Learn more.

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. Learn more.

Document avoids plugins

Search engines can't index plugin content, and many devices restrict plugins or don't support them. Learn more.

Not applicable (3)

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 ignored with an empty alt attribute. Learn more.

Document has a valid `rel=canonical`

Canonical links suggest which URL to show in search results. Learn more.

Progressive Web App

These checks validate the aspects of a Progressive Web App. Learn more.

Fast and reliable

Page load is fast enough on mobile networks

A fast page load over a cellular network ensures a good mobile user experience. Learn more.

▲ Current page does not respond with a 200 when offline

If you're building a Progressive Web App, consider using a service worker so that your app can work offline. Learn more.

▲ `start_url` does not respond with a 200 when offline No usable web app manifest found on page.

A service worker enables your web app to be reliable in unpredictable network conditions. Learn more.

Installable

Uses HTTPS

All sites should be protected with HTTPS, even ones that don't handle sensitive data. This includes avoiding mixed content, 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. Learn more.

▲ Does not register a service worker that controls page and `start_url`

The service worker is the technology that enables your app to use many Progressive Web App features, such as offline, add to homescreen, and push notifications. Learn more.

▲ Web app manifest does not meet the installability requirements Failures: No manifest was fetched.

Browsers can proactively prompt users to add your app to their homescreen, which can lead to higher engagement. Learn more.

PWA Optimized

Redirects HTTP traffic to HTTPS

If you've already set up HTTPS, make sure that you redirect all HTTP traffic to HTTPS in order to enable secure web features for all your users. Learn more.

▲ Is not configured for a custom splash screen Failures: No manifest was fetched.

A themed splash screen ensures a high-quality experience when users launch your app from their homescreens. Learn more.

▲ Does not set a theme color for the address bar.
Failures: No manifest was fetched, No `<meta name="theme-color">` tag found.

The browser address bar can be themed to match your site. Learn more.

▲ Content is not sized correctly for the viewport The viewport size of 980px does not match the window size of 360px.

If the width of your app's content doesn't match the width of the viewport, your app might not be optimized for mobile screens. Learn more.

▲ Does not have a `<meta name="viewport">` tag with `width` or `initial-scale` No `<meta name="viewport">` tag found

Add a `<meta name="viewport">` tag to optimize your app for mobile screens. Learn more.

Contains some content when JavaScript is not available

Your app should display some content when JavaScript is disabled, even if it's just a warning to the user that JavaScript is required to use the app. Learn more.

▲ Does not provide a valid `apple-touch-icon`

For ideal appearance on iOS when users add a progressive web app to the home screen, define an `apple-touch-icon`. It must point to a non-transparent 192px (or 180px) square PNG. Learn More.

▲ Manifest doesn't have a maskable icon No manifest was fetched

A maskable icon ensures that the image fills the entire shape without being letterboxed when installing the app on a device. Learn more.

Additional items to manually check (3) — 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.

Site works cross-browser

To reach the most number of users, sites should work across every major browser. Learn more.

Page transitions don't feel like they block on the network

Transitions should feel snappy as you tap around, even on a slow network. This experience is key to a user's perception of performance. Learn more.

Each page has a URL

Ensure individual pages are deep linkable via URL and that URLs are unique for the purpose of shareability on social media. Learn more.

Publisher Ads

A Lighthouse plugin to improve ad speed and overall quality that is targeted at sites using GPT or AdSense tag. Learn more

Not applicable (20)

Tag load time — No tag requested

This metric measures the time for the ad tag's implementation script (pubads_impl.js for GPT; adsbygoogle.js for AdSense) to load after the page loads. Learn more.

First bid request time — No bids detected

This metric measures the elapsed time from the start of page load until the first bid request is made. Delayed bid requests will decrease impressions and viewability, and have a negative impact on ad revenue. Learn More.

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Latency of first ad render — No ads rendered

This metric measures the time for the first ad iframe to render from page navigation. Learn more.

Cumulative ad shift — No ads rendered

Measures layout shifts that were caused by ads or happened near ads. Reducing cumulative ad-related layout shift will improve user experience. Learn more.

GPT and bids loaded in parallel — GPT not requested

To optimize ad loading, bid requests should not wait on GPT to load. This issue can often be fixed by making sure that bid requests do not wait on `googletag.pubadsReady` or `googletag.cmd.push`. Learn More.

Header bidding is parallelized — No bids detected

Send header bidding requests simultaneously, rather than serially, to retrieve bids more quickly. Learn more.

No bottleneck requests found — No ad-related requests

Speed up, load earlier, parallelize, or eliminate the following requests and their dependencies in order to speed up ad loading. Learn More.

Ad scripts are loaded statically — No tag requested

Load the following scripts directly with `<script async src=...>` instead of injecting scripts with JavaScript. Doing so allows the browser to preload scripts sooner. Learn more.

Ads not blocked by load events — No ad-related requests

Waiting on load events increases ad latency. To speed up ads, eliminate the following load event handlers. Learn More.

Minimal render-blocking resources found — No tag requested

Render-blocking resources slow down tag load times. Consider loading critical JS/CSS inline or loading scripts asynchronously or loading the tag earlier in the head. Learn more.

No long tasks blocking ad-related network requests — No ad-related requests

Tasks blocking the main thread can delay ad requests and cause a poor user experience. Consider removing long blocking tasks or moving them off of the main thread. These tasks can be especially detrimental to performance on less powerful devices. Learn more.

Ad request waterfall — No ads requested

Consider reducing the number of resources, loading multiple resources simultaneously, or loading resources earlier to improve ad speed. Requests that block ad loading can be found below. Learn more.

Few or no ads loaded outside viewport — No visible slots

Too many ads loaded outside the viewport lowers viewability rates and impacts user experience. Consider loading ads below the fold lazily as the user scrolls down. Consider using GPT's Lazy Loading API. Learn more.

Ad tag is loaded asynchronously — No tag requested

Loading the ad tag synchronously blocks content rendering until the tag is fetched and loaded. Consider using the `async` attribute to load gpt.js and/or adsbygoogle.js asynchronously. Learn more.

Ad tag is loaded over HTTPS — No tag requested

For privacy and security, always load GPT/AdSense over HTTPS. Insecure pages should explicitly request the ad script securely. GPT Example: `<script async src="https://securepubads.g.doubleclick.net/tag/js/gpt.js">` AdSense Example: `<script async src="https://pagead2.googlesyndication.com/pagead/js/adsbygoogle.js">`. Learn more.

GPT tag is loaded from recommended host — GPT not requested

Load GPT from 'securepubads.g.doubleclick.net' to reduce GPT load time. By loading GPT from the same host as ad requests, browsers can avoid an additional DNS lookup and HTTP connection. Example:`<script async src="https://securepubads.g.doubleclick.net/tag/js/gpt.js">`. Learn more.

Ad density in initial viewport is within recommended range — No visible slots

The ads-to-content ratio inside the viewport can have an impact on user experience and ultimately user retention. The Better Ads Standard recommends having an ad density below 30%. Learn more.

No ad found at the very top of the viewport — No visible slots

Over 10% of ads are never viewed because users scroll past them before they become viewable. By moving ad slots away from the very top of the viewport, users are more likely to see ads before scrolling away. Learn more.

No duplicate tags found — No tags requested

Loading a tag more than once in the same page is redundant and adds overhead without benefit. Learn more.

Runtime Settings

URL	https://elducati.github.io/todo-list-app/
Fetch Time	Jan 11, 2021, 8:36 AM GMT+3
Device	Emulated Moto G4
Network throttling	150 ms TCP RTT, 1,638.4 Kbps throughput (Simulated)
CPU throttling	4x slowdown (Simulated)
Channel	devtools
User agent (host)	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Safari/537.36
User agent (network)	Mozilla/5.0 (Linux; Android 7.0; Moto G (4)) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/84.0.4143.7 Mobile Safari/537.36 Chrome-Lighthouse
CPU/Memory Power	793

Axe version	3.5.5