



97

92





Performance

Accessibility

Best Practices SEO

PWA

There were issues affecting this run of Lighthouse:

 Chrome extensions negatively affected this page's load performance. Try auditing the page in incognito mode or from a Chrome profile without extensions.



Performance

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

▲ 0-49

50-89

90-100



METRICS Expand view

First Contentful Paint

 $0.5 \, s$

Time to Interactive

1.0 s

Speed Index

0.5 s

Total Blocking Time

410 ms

Largest Contentful Paint

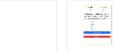
0.8 s

Cumulative Layout Shift

0

View Original Trace

View Treemap





















Show audits relevant to:





OPPORTUNITIES

Opportunity Estimated Savings

Reduce unused CSS 0.17 s ^

Reduce unused rules from stylesheets and defer CSS not used for above-the-fold content to decrease bytes consumed by network activity. <u>Learn more</u>. <u>FCP</u> <u>LCP</u>

✓ Show 3rd-party resources (1)

URL	Transfer Size	Potential Savings
css/bootstrap.min.css (cdn.jsdelivr.net)	23.5 KiB	23.1 KiB
<pre>/*! * Font Awesome Free 5.15.4 by @fontawesome - https://fontawesome.com * License - https://fonta</pre>	12.0 KiB	12.0 KiB

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

DIAGNOSTICS

O Avoid chaining critical requests — 8 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. [FCP] [LCP]

Maximum critical path latency: 520 ms

Initial Navigation

/MP2---General-Knoledge-Quiz/quiz.html (nickyfrs.github.io)

/css2?family=... (fonts.googleapis.com)

...v27/1Ptug8zYS....woff2 (fonts.gstatic.com) - 60 ms, 41.97 KiB

...css/bootstrap.min.css (cdn.jsdelivr.net) - 130 ms, 23.51 KiB

...css/quiz.css (nickyfrs.github.io) - 70 ms, 0.81 KiB

...css/style.css (nickyfrs.github.io) - 70 ms, 0.61 KiB

/feb68d516c.js (kit.fontawesome.com) - 70 ms, 4.00 KiB

...js/main.js (nickyfrs.github.io) - 70 ms, 2.21 KiB

...js/bootstrap.bundle.min.js (cdn.jsdelivr.net) - 120 ms, 22.97 KiB

/jquery-3.6.0.slim.js (code.jquery.com) - 210 ms, 67.65 KiB

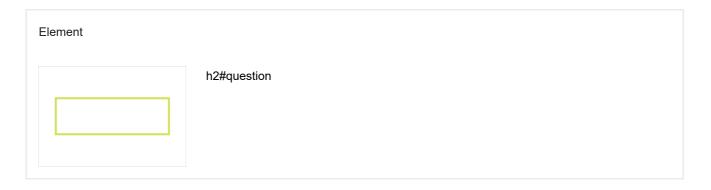
Keep request counts low and transfer sizes small — 14 requests • 192 KiB

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

Resource Type	Requests	Transfer Size
Total	14	192.5 KiB
Script	4	96.8 KiB
Font	1	42.0 KiB
Stylesheet	4	27.8 KiB
Other	4	24.2 KiB
Document	1	1.7 KiB
Image	0	0.0 KiB
Media	0	0.0 KiB
Third-party	9	182.0 KiB

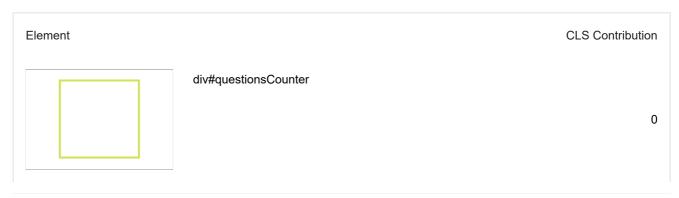
O Largest Contentful Paint element — 1 element found

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



O Avoid large layout shifts — 3 elements found

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



Element		CLS Contribution
	a#go-home.btn.btn-danger.btn-next-question	0
	div#scoreCounter	0

O Avoid long main-thread tasks — 3 long tasks found

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

URL	Start Time	Duration
chrome-extension://oiaejidbmkiecgbjeifoejpgmdaleoha/editor/index.js	466 ms	538 ms
/MP2General-Knoledge-Quiz/quiz.html (nickyfrs.github.io)	252 ms	98 ms
/MP2General-Knoledge-Quiz/quiz.html (nickyfrs.github.io)	363 ms	52 ms

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

PASSED AUDITS (34)

Eliminate render-blocking resources — Potential savings of 10 ms

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

URL	Transfer Size	Potential Savings
/css2?family= (fonts.googleapis.com)	2.9 KiB	210 ms
css/bootstrap.min.css (cdn.jsdelivr.net)	23.5 KiB	250 ms
/feb68d516c.js (kit.fontawesome.com)	4.0 KiB	220 ms

Serve images that are appropriately-sized to save cellular data and improve	e load time. <u>Learn more</u> .	
Defer offscreen images		
Consider lazy-loading offscreen and hidden images after all critical resourc interactive. <u>Learn more</u> .	es have finished loading to lower ti	me to
Minify CSS		
Minifying CSS files can reduce network payload sizes. <u>Learn more</u> . <u>FCP</u> (LCP	
Minify JavaScript — Potential savings of 35 KiB		
Minifying JavaScript files can reduce payload sizes and script parse time. L	Learn more. (FCP) (LCP)	
URL	Transfer	Potentia
ONE	Size	Saving
/jquery-3.6.0.slim.js (code.jquery.com) Reduce unused JavaScript — Potential savings of 49 KiB	67.6 KiB	34.7 Ki
Reduce unused JavaScript — Potential savings of 49 KiB Reduce unused JavaScript and defer loading scripts until they are required		
Reduce unused JavaScript — Potential savings of 49 KiB Reduce unused JavaScript and defer loading scripts until they are required activity. Learn more.	I to decrease bytes consumed by n	etwork
Reduce unused JavaScript — Potential savings of 49 KiB Reduce unused JavaScript and defer loading scripts until they are required		34.7 Kil etwork Potentia Saving
Reduce unused JavaScript — Potential savings of 49 KiB Reduce unused JavaScript and defer loading scripts until they are required activity. Learn more.	I to decrease bytes consumed by n Transfer	etwork Potentia
Reduce unused JavaScript — Potential savings of 49 KiB Reduce unused JavaScript and defer loading scripts until they are required activity. Learn more. [CP]	I to decrease bytes consumed by n Transfer Size	etwork Potentia Saving
Reduce unused JavaScript — Potential savings of 49 KiB Reduce unused JavaScript and defer loading scripts until they are required activity. Learn more. [CCP] URL /jquery-3.6.0.slim.js (code.jquery.com)	I to decrease bytes consumed by n Transfer Size 67.6 KiB	etwork Potentia Saving
Reduce unused JavaScript — Potential savings of 49 KiB Reduce unused JavaScript and defer loading scripts until they are required activity. Learn more. LCP URL /jquery-3.6.0.slim.js (code.jquery.com)	I to decrease bytes consumed by n Transfer Size 67.6 KiB	etwork Potentia Saving

Text-based resources should be served with compression (gzip, deflate or brotli) to minimize total network bytes. <u>Leal</u> more. FCP (LCP)	<u>rn</u>
Preconnect to required origins	^
Consider adding `preconnect` or `dns-prefetch` resource hints to establish early connections to important third-party of Learn more. FCP (LCP)	origins.
Initial server response time was short — Root document took 20 ms	^
Keep the server response time for the main document short because all other requests depend on it. <u>Learn more</u> . <u>FC</u>	P.
URL Time S	pent
/MP2General-Knoledge-Quiz/quiz.html (nickyfrs.github.io)	0 ms
Avoid multiple page redirects	^
Redirects introduce additional delays before the page can be loaded. Learn more. FCP (LCP)	
O Preload key requests	^
Consider using ` <link rel="preload"/> ` to prioritize fetching resources that are currently requested later in page load. Leamore. FCP LCP	<u>arn</u>
Use HTTP/2	^
HTTP/2 offers many benefits over HTTP/1.1, including binary headers and multiplexing. 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. <u>Learn more</u> <u>LCP</u>	
Remove duplicate modules in JavaScript bundles	^
Remove large, duplicate JavaScript modules from bundles to reduce unnecessary bytes consumed by network activit TBT	ïy.
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. <u>Learn More (TBT)</u>

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 192 KiB

^

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

✓ Show 3rd-party resources (8)

URL	Transfer Size
/jquery-3.6.0.slim.js (code.jquery.com)	67.6 KiB
v27/1Ptug8zYSwoff2 (fonts.gstatic.com)	42.0 KiB
css/bootstrap.min.css (cdn.jsdelivr.net)	23.5 KiB
js/bootstrap.bundle.min.js (cdn.jsdelivr.net)	23.0 KiB
css/free.min.css?token=feb68d516c (ka-f.fontawesome.com)	13.0 KiB
/site.webmanifest (nickyfrs.github.io)	5.1 KiB
css/free-v4-shims.min.css?token=feb68d516c (ka-f.fontawesome.com)	4.9 KiB
/feb68d516c.js (kit.fontawesome.com)	4.0 KiB
/css2?family= (fonts.googleapis.com)	2.9 KiB
js/main.js (nickyfrs.github.io)	2.2 KiB

Uses efficient cache policy on static assets — 3 resources found

^

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

URL	Cache TTL	Transfer Size
js/main.js (nickyfrs.github.io)	10 m	2 KiB
css/quiz.css (nickyfrs.github.io)	10 m	1 KiB

URL	Cache TTL	Transfer Size
css/style.css (nickyfrs.github.io)	10 m	1 KiB

Avoids an excessive DOM size — 30 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		30
Maximum DOM Depth		input#a.answer
Maximum Child Elements	body	4

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 — 0.6 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)

URL	Total CPU Time	Script Evaluation	Script Parse
<pre>chrome- extension://oiaejidbmkiecgbjeifoejpgmdaleoha/editor/index.js</pre>	545 ms	403 ms	93 ms
/MP2General-Knoledge-Quiz/quiz.html (nickyfrs.github.io)	294 ms	68 ms	23 ms

URL	Total CPU	Script	Script
	Time	Evaluation	Parse
Unattributable	201 ms	11 ms	0 ms

Minimizes main-thread work — 1.2 s

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

Category	Time Spent
Script Evaluation	536 ms
Other	295 ms
Script Parsing & Compilation	131 ms
Style & Layout	117 ms
Garbage Collection	40 ms
Parse HTML & CSS	35 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. Learn more. FCP [LCP]

Minimize third-party usage — Third-party code blocked the main thread for 0 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
jQuery CDN	68 KiB	0 ms
/jquery-3.6.0.slim.js (code.jquery.com)	68 KiB	0 ms
JSDelivr CDN	46 KiB	0 ms
css/bootstrap.min.css (cdn.jsdelivr.net)	24 KiB	0 ms

00:19		
Third-Party	Transfer Size	Main-Thread Blocking Time
js/bootstrap.bundle.min.js (cdn.jsdelivr.net)	23 KiB	0 ms
oogle Fonts	45 KiB	0 ms
v27/1Ptug8zYSwoff2 (fonts.gstatic.com)	42 KiB	0 ms
ontAwesome CDN	23 KiB	0 m
css/free.min.css?token=feb68d516c (ka-f.fontawesome.com)	13 KiB	0 ms
css/free-v4-shims.min.css?token=feb68d516c (ka- .fontawesome.com)	5 KiB	0 ms
/feb68d516c.js (kit.fontawesome.com)	4 KiB	0 ms
azy load third-party resources with facades		
ne third-party embeds can be lazy loaded. Consider replacing them wi	th a facade until they	are required. <u>Learn more</u> .
argest Contentful Paint image was not lazily loaded		

0 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. 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 CLS

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

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

Image elements have explicit width and height

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

Avoids unload event listeners

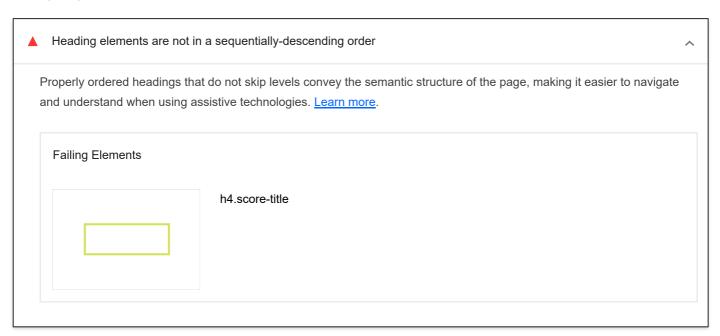
The `unload` event does not fire reliably and listening for it can prevent browser optimizations like the Back-Forward Cache. Use `pagehide` or `visibilitychange` events instead. <u>Learn more</u>



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.

NAVIGATION



These are opportunities to improve keyboard navigation in your application.

ADDITIONAL ITEMS TO MANUALLY CHECK (10)

The page has a logical tab order

Hide

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 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. <u>Learn more</u> .	
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 more</u> .	
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. <u>Learn more</u> .	
Custom controls have associated labels	^
Custom interactive controls have associated labels, provided by aria-label or aria-labelledby. <u>Learn more</u> .	
Custom controls have ARIA roles	^
Custom interactive controls have appropriate ARIA roles. <u>Learn more</u> .	
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. <u>Learn more</u> .	
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 techno <u>Learn more</u>.</nav></main>	logy.
These items address areas which an automated testing tool cannot cover. Learn more in our guide on conducting an access	<u>ibility</u>

review.

PASSED AUDITS (14) Hide

[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.

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. 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. Form elements have associated labels Labels ensure that form controls are announced properly by assistive technologies, like screen readers. 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. 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. [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. <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 <1i> 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 (<1i>) are contained within or <0l> parent elements

Screen readers require list items (') to be contained within a parent ' or ' 'to be announced properly. Learn more.

NOT APPLICABLE (29)

O [accesskey] values are unique

Access keys let users quickly focus a part of the page. For proper navigation, each access key must be unique. <u>Learn</u> more.

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

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

ARIA input fields have accessible names

[aria-*] attributes match their roles

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. <u>Learn more</u>.

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 unfor users who rely on screen readers. <u>Learn more</u> .	usable
ARIA progressbar elements have accessible names	^
When a `progressbar` element doesn't have an accessible name, screen readers announce it with a generic name, it unusable for users who rely on screen readers. <u>Learn more</u> .	making
O [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 required children.	^
Some ARIA parent roles must contain specific child roles to perform their intended accessibility functions. Learn mo	ore.
O [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 full Learn more.	nctions.
O [role] values are valid	^
ARIA roles must have valid values in order to perform their intended accessibility functions. <u>Learn more</u> .	
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 u for users who rely on screen readers. <u>Learn more</u> .	inusable
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 unfor users who rely on screen readers. <u>Learn more</u> .	usable
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 unfor users who rely on screen readers. <u>Learn more</u> .	usable
O [aria-*] attributes have valid values	^

Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid values. <u>Learn more</u> .
O [aria-*] attributes are valid and not misspelled
Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid names. <u>Learn more</u> .
O <dl>'s contain only properly-ordered <dt> and <dd> groups, <script>, <template> or <div> elements.</td></tr><tr><td>When definition lists are not properly marked up, screen readers may produce confusing or inaccurate output. Learn more.</td></tr><tr><td>O Definition list items are wrapped in <d1> elements</td></tr><tr><td>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.</td></tr><tr><td>O No form fields have multiple labels</td></tr><tr><td>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. <u>Learn more</u>.</td></tr><tr><td>O <frame> Or <iframe> elements have a title</td></tr><tr><td>Screen reader users rely on frame titles to describe the contents of frames. <u>Learn more</u>.</td></tr><tr><td>O Image elements have [alt] attributes</td></tr><tr><td>Informative elements should aim for short, descriptive alternate text. Decorative elements can be ignored with an empty alt attribute. <u>Learn more</u>.</td></tr><tr><td>O <input type="image"> elements have [alt] text</td></tr><tr><td>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.</td></tr><tr><td>The document does not use <meta http-equiv="refresh"></td></tr><tr><td>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>.</td></tr><tr><td>O <object> elements have alternate text</td></tr><tr><td>Screen readers cannot translate non-text content. Adding alternate text to `<object>` elements helps screen readers convey meaning to users. Learn more.</td></tr></tbody></table></script></dd></dt></dl>

No element has a Itahinday I 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 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

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

refer to other cells in the same table may improve the experience for screen reader users. Learn more.

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>.

[lang] attributes have a valid value

INO CICITICITE HAS A [LADITHUEX] VALUE GICATOL THAILO

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. Learn more.



Best Practices

GENERAL

site.webmanifest:1

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

Source

Description

Failed to load resource: the server responded with a status of 404 ()

site.webmanifest:1 Failed to load resource: the server responded with a status of 404 ()

Source Description
site.webmanifest: 1 Manifest: Line: 1, column: 1, Syntax error.

Detected JavaScript libraries

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

Name Version

Bootstrap 5.1.3

jQuery 3.6.0

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. Learn more

Description

Directive

Severity

No CSP found in enforcement mode

High

PASSED AUDITS (12)

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.

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.

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

URL	Map URL
js/bootstrap.bundle.min.js (cdn.jsdelivr.net)	js/bootstrap.bundle.min.js.map (cdn.jsdelivr.net)

NOT APPLICABLE (1)

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 Core Web Vitals. Learn more.

CONTENT BEST PRACTICES

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

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

ADDITIONAL ITEMS TO MANUALLY CHECK (1) Hide

Structured data is valid

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

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

PASSED AUDITS (8) Hide

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

Image elements have [alt] attributes	^
If your robots.txt file is malformed, crawlers may not be able to understand how you want your website to be craw indexed. <u>Learn more</u> .	led or
O robots.txt is valid	^
NOT APPLICABLE (5)	Hide
Search engines can't index plugin content, and many devices restrict plugins or don't support them. <u>Learn more</u> .	
Document avoids plugins	^
hreflang links tell search engines what version of a page they should list in search results for a given language or <u>Learn more</u> .	region.
Document has a valid hreflang	^
Search engines are unable to include your pages in search results if they don't have permission to crawl them. Le	earn more.
Page isn't blocked from indexing	^
Search engines may use `href` attributes on links to crawl websites. Ensure that the `href` attribute of anchor eler to an appropriate destination, so more pages of the site can be discovered. Learn More	ments links
Links are crawlable	^
Descriptive link text helps search engines understand your content. <u>Learn more</u> .	
Links have descriptive text	^
Pages with unsuccessful HTTP status codes may not be indexed properly. <u>Learn more</u> .	
Page has successful HTTP status code	^
The title gives screen reader users an overview of the page, and search engine users rely on it heavily to determine page is relevant to their search. <u>Learn more</u> .	ne if a
Document has a <title> element</td><td>^</td></tr><tr><td>A `<meta name="viewport">` not only optimizes your app for mobile screen sizes, but also prevents <u>a 300 millise</u> to user input. <u>Learn more</u>. (TBT)</td><td>cond delay</td></tr></tbody></table></title>	

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

O Document has a valid rel=canonical

^

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

Document uses legible font sizes

.

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 $\ge 12px$. Learn more.

Tap targets are sized appropriately

^

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 more</u>.



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 — 1 reason

^

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. With proper service worker and manifest implementations, browsers can proactively prompt users to add your app to their homescreen, which can lead to higher engagement. <u>Learn more</u>.

Failure reason

No manifest was fetched

PWA OPTIMIZED

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. <u>Learn more</u>.

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 sized correctly for the viewport 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. Has a <meta name="viewport"> tag with width or initial-scale 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 Provides 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) Hide 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. <u>Learn more</u>.

These checks are required by the baseline <u>PWA Checklist</u> but are not automatically checked by Lighthouse. They do not affect your score but it's important that you verify them manually.

Captured at May 4, 2022, 12:19 AM GMT+1 Initial page load Emulated Desktop with
Lighthouse 9.4.0
Custom throttling

Single page load

<u>Using Chromium</u> 100.0.4896.127 with devtools

Generated by **Lighthouse** 9.4.0 | File an issue