

**98**  
100

## Progressive Web App

These audits validate the aspects of a Progressive Web App.

### App can load on offline/flaky connections

Ensuring your web app can respond when the network connection is unavailable or flaky is critical to providing your users a good experience. This is achieved through use of a [Service Worker](#).

- ✓ Has a registered Service Worker ?
- ✓ URL responds with a 200 when offline ?

### Page load performance is fast

Users notice if sites and apps don't perform well. These top-level metrics capture the most important perceived performance concerns.

- 100 First meaningful paint: **776.0ms** (target: 1,600ms) ?
- 100 Perceptual Speed Index: **698** (target: 1,250) ?
  - First Visual Change: **338ms**
  - Last Visual Change: **1162ms**
- 100 Estimated Input Latency: **16ms** (target: 50ms) ?
- 100 Time To Interactive (alpha): **1075.5ms** (target: 5,000ms) ?
  - Content scrolls at 60fps (Coming soon)
  - Touch input gets a response in < 150ms (Coming soon)
  - App is interactive without jank after the first meaningful paint (Coming soon)

### Site is progressively enhanced

Progressive enhancement means that everyone can access the basic content and functionality of a page in any browser, and those without certain browser features may receive a reduced but still functional experience.

- ✓ Page contains some content when its scripts are not available ?

### Network connection is secure

Security is an important part of the web for both developers and users. Moving forward, Transport Layer Security (TLS) support will be required for many APIs.

- ✓ Site is on HTTPS ?
- ✓ Site redirects HTTP traffic to HTTPS ?

### User can be prompted to Add to Homescreen

While users can manually add your site to their homescreen in the browser menu, the [prompt \(aka app install banner\)](#) will proactively prompt the user to install the app if the below requirements are met and the user has visited your site at least twice (with at least five minutes between visits).

- ✓ Has a registered Service Worker ?
- ✓ Manifest exists

- ✓ Manifest contains start\_url
- ✓ Manifest contains icons at least 144px: **found sizes: 152x152**
- ✓ Manifest contains short\_name

### Installed web app will launch with custom splash screen

A default splash screen will be constructed, but meeting these requirements guarantee a high-quality and customizable [splash screen](#) the user sees between tapping the home screen icon and your app's first paint.

- ✓ Manifest exists
- ✓ Manifest contains name
- ✓ Manifest contains background\_color
- ✓ Manifest contains theme\_color
- ✗ Manifest contains icons at least 192px

**WARNING: No icons are at least 192px**

### Address bar matches brand colors

The browser address bar can be themed to match your site. A theme-color [meta tag](#) will upgrade the address bar when a user browses the site, and the [manifest theme-color](#) will apply the same theme site-wide once it's been added to homescreen.

- ✓ Manifest exists
- ✓ HTML has a <meta name="theme-color"> tag: #ffffff
- ✓ Manifest contains theme\_color

### Design is mobile-friendly

Users increasingly experience your app on mobile devices, so it's important to ensure that the experience can adapt to smaller screens.

- ✓ HTML has a <meta name="viewport"> tag ?
- ✓ Content is sized correctly for the viewport ?

---

## Best Practices

We've compiled some recommendations for modernizing your web app and avoiding performance pitfalls. These audits do not affect your score but are worth a look.

### Using modern offline features

- ✓ **Offline:** Site does not use Application Cache ?
- ✓ **Offline:** Site does not use WebSQL DB. ?

### Using modern protocols

- ✓ **Security:** Site is on HTTPS ?
- ✗ **Performance:** Site uses HTTP/2 for its own resources: **5 resources were not served over h2** ?

HTTP/2 offers many benefits over HTTP/1.1, including binary headers, multiplexing, and server push. [Learn more.](#)

► URLs

## Using modern CSS features

- ✓ **CSS:** Site does not use the old CSS flexbox [?](#)

## Using modern JavaScript features

- ✓ **JavaScript:** Site uses passive listeners to improve scrolling performance [?](#)
- ✓ **JavaScript:** Site does not use Mutation Events in its own scripts [?](#)

## Avoiding APIs that harm the user experience

- ✓ **Performance:** Site does not use document.write() [?](#)
- ✗ **Performance:** Site does not use <link> that delay first paint: **3 resources delayed first paint by 71ms** [?](#)

Link elements are blocking the first paint of your page. Consider inlining critical links and deferring non-critical ones. [Learn more.](#)

► URLs

- ✓ **Performance:** Site does not use <script> in head that delays first paint [?](#)
- ✓ **Performance:** Site opens external anchors using rel="noopener" [?](#)
- ✓ **UX:** Page does not automatically request geolocation on page load [?](#)
- ✓ **UX:** Page does not automatically request notification permissions on page load [?](#)

## Accessibility

- ✓ **Accessibility:** Element aria-\* attributes are allowed for this role
- ✓ **Accessibility:** Elements with ARIA roles have the required aria-\* attributes
- ✓ **Accessibility:** Element aria-\* attributes are valid and not misspelled or non-existent.
- ✓ **Accessibility:** Element aria-\* attributes have valid values
- ✗ **Accessibility:** Background and foreground colors have a sufficient contrast ratio  
 Elements must have sufficient color contrast (Failed on 1 element)  
 ► 1 element fails this test [learn more](#)
- ✓ **Accessibility:** Every image element has an alt attribute
- ✓ **Accessibility:** Every form element has a label
- ✓ **Accessibility:** No element has a tabindex attribute greater than 0

## Other

- ✓ **Manifest:** Manifest's short\_name won't be truncated when displayed on homescreen
- ✓ **Manifest:** Manifest's display property is set: **standalone**
- **UX:** Service worker makes use of push notifications, if appropriate (Coming soon)
- **UX:** Tap targets are appropriately sized for touch (Coming soon)
- **UX:** Payment forms marked up with autocomplete attributes (Coming soon)
- **UX:** Login forms marked up with autocomplete attributes (Coming soon)
- **UX:** Input fields use appropriate type attributes for custom keyboards (Coming soon)

## Performance Metrics

These encapsulate your app's performance.

### ❌ **Performance:** Critical Request Chains: 8 ?

The Critical Request Chains below show you what resources are required for first render of this page. Improve page load by reducing the length of chains, reducing the download size of resources, or deferring the download of unnecessary resources. [Learn more](#).

Longest request chain (shorter is better): 2

Longest chain duration (shorter is better): **1102.36ms**

Longest chain transfer size (smaller is better): **53.99KB**

Initial navigation



### ✅ **Performance:** User Timing marks and measures: 0 ?

## Fancier stuff

A list of newer features that you could be using in your app. These audits do not affect your score and are just suggestions.

### New JavaScript features

✅ **JavaScript:** Site does not use `Date.now()` in its own scripts ?

✅ **JavaScript:** Site does not use `console.time()` in its own scripts ?