# 43/100 Progressive Web App

These audits validate the aspects of a Progressive Web App. They are a subset of the [PWA Checklist](#).

## ❌ 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](#).

- ❌ Registers a Service Worker ?
- ❌ 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.

- `90` First meaningful paint: 2098.9ms (target: 1,600ms) ?
- `89` Perceptual Speed Index: 2349 (target: 1,250) ?

  First Visual Change: 2120ms

  Last Visual Change: 10279ms
- `100` Estimated Input Latency: 16.2ms (target: 50ms) ?
- `91` Time To Interactive (alpha): 2363.1ms (target: 5,000ms) ?

✅ **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.

    ✅ Contains some content when JavaScript is 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.

    ✅ Uses HTTPS ❓

    ❌ Redirects HTTP traffic to HTTPS ❓

        If you've already set up HTTPS, make sure that you redirect all HTTP traffic to HTTPS. Learn more.

❌ **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).

    ❌ Registers a Service Worker ❓

    ❌ Manifest exists ❓

    ❌ Manifest contains `start_url` ❓

    ❌ Manifest contains icons at least 144px

    ❌ 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 ⊘

❌ **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 ⊘

  ❌ Has a `<meta name="theme-color">` tag

  ❌ 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.

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

  ✅ Content is sized correctly for the viewport ⊘