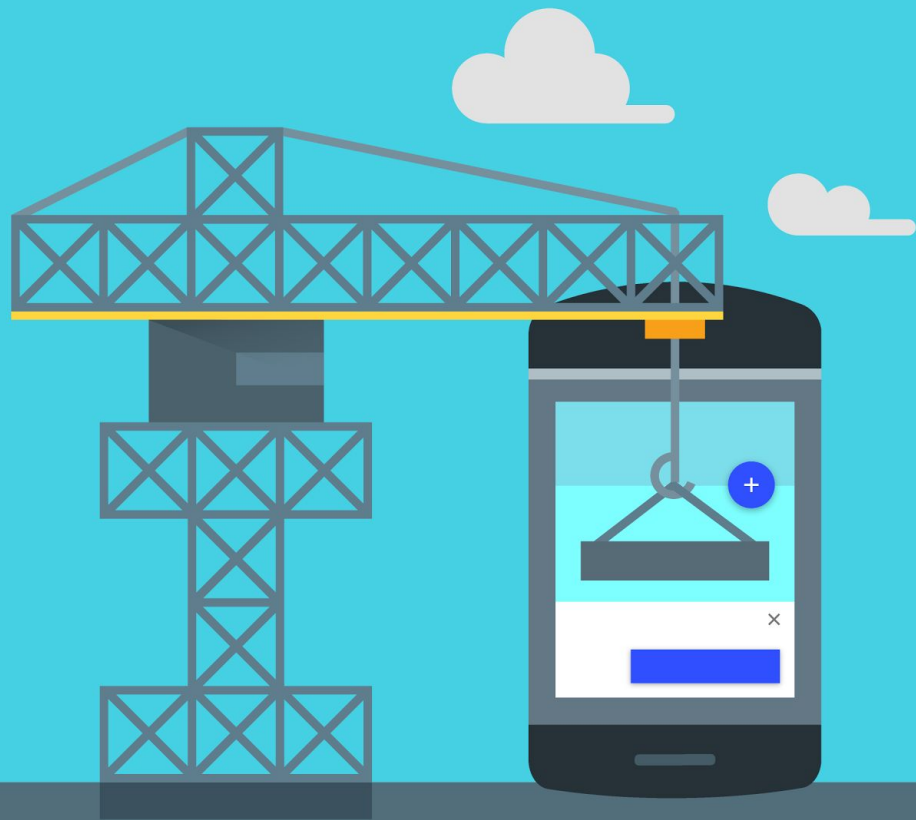


Testing your progressive web application

Using Lighthouse



Huh?

- What is Lighthouse and why should you use it?
- Lighthouse extension for Chrome
- Lighthouse from the command line
- Understanding the report





Progressive Web App

Best Practices

Performance Metrics

Progressive Web App

90 / 100

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
- Manifest's start_url is in cache storage for offline use (Coming soon)

Yes

Yes



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.

- First meaningful paint (target value: 1,000ms)
- Speed Index (target value: 1,000)
- 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)

95 (1764.37ms)

100 (534)



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 not unfunctioning experience.

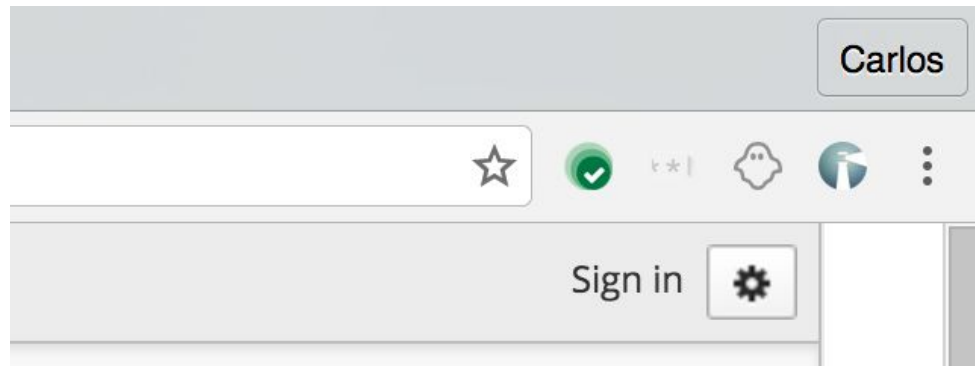
- Page contains some content when its scripts are not available

Yes

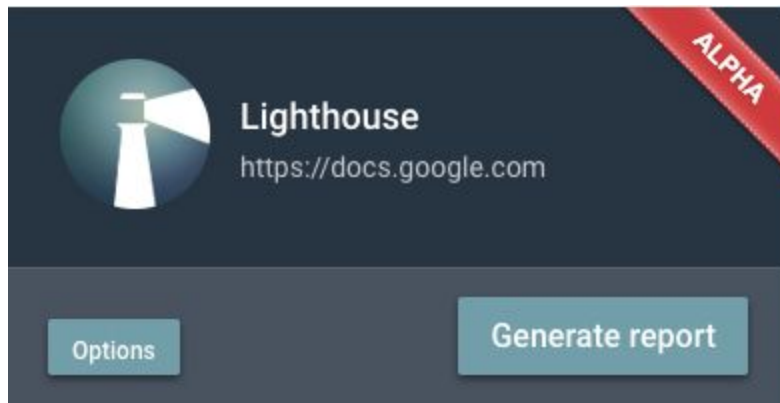


Lighthouse Extension for Chrome





Generating a Lighthouse report





Progressive Web App

100 / 100

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100 (684.35ms)

100



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 not unfunctioning experience.

- Page contains some content when its scripts are not available

Yes



Command-line Lighthouse



Install/Run Lighthouse

```
$ npm install -g GoogleChrome/lighthouse
```

```
$ npm explore -g lighthouse -- npm run chrome
```

```
$ lighthouse https://www.airhorner.com/
```



```
http method <= browser OK Network.emulateNetworkConditions {}
```

```
Lighthouse results: https://wiki-offline.jakearchibald.com/
```

```
App can load on offline/flaky connections: 100%
```

- Has a registered Service Worker: true
- URL responds with a 200 when offline: true
- Manifest's start_url is in cache storage for offline use: "_(ツ)_/"

```
Page load performance is fast: 100%
```

- First meaningful paint: 100 (597.25ms)
- Speed Index: 100 (656)
- Content scrolls at 60fps: "_(ツ)_/"
- Touch input gets a response in < 150ms: "_(ツ)_/"
- App is interactive without jank after the first meaningful paint: "_(ツ)_/"

```
Network connection is secure: 50%
```

- Site is on HTTPS: true

```
User can be prompted to Add to Homescreen: 100%
```

- Has a registered Service Worker: true
- Manifest exists: true
- Manifest contains start_url: true
- Manifest contains icons at least 144px: true
Found icons of sizes: 144x144,192x192
- Manifest contains short_name: true

```
Installed web app will launch with custom splash screen: 67%
```

