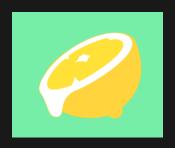
DENO FRESH - PWA

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TUTORIAL

Let's build a PWA in DENO FRESH



WHAT IS A PWA?

Progressive Web Apps (PWAs) are web apps that use service workers, manifests, and other web-platform features in combination with progressive enhancement to give users an experience similarly found with native apps.

IS THIS FOR MOBILE ONLY?

No. PWAs are built to take advantage of native mobile device features, without requiring the end user to visit an app store, make a purchase and download software locally.

PWA FEATURES & CAPABILITIES

- Connectivity independence low bandwidth
- App-like interface mimic navigation of native
- Push notifications user engagement
- Self-updates stay fresh :)
- Safety / HTTPS only Transport Layer Security (TLS)
- Discoverability and easy installation
- Works offline

PREREQUISITES

- Install Deno CLI
- Create a new Deno Fresh App

INSTALL DENO CLI

curl -fsSL https://deno.land/install.sh | sh

CREATE NEW APP

Deno Fresh App

```
deno run -A -r https://fresh.deno.dev deno-fresh-pwa
cd deno-fresh-pwa
deno task start
```

ADD < Head />

Open VSCode or another IDE and head over to the index.tsx and import the <Head /> component from Deno Fresh like so

```
import { Head } from "https://deno.land/x/fresh@1.0.1/runtime.
```

ADD MANIFEST LINK

Inside the same file index.tsx, add a reference to the manifest.webmanifest file. (we will create this soon)

```
<link
    crossOrigin="use-credentials"
    rel="manifest"
    href="/manifest.webmanifest"
/>
```

ADD PWA SCRIPT

Inside the same file index.tsx, add the following PWA script.

```
<script type="module">
   import 'https://cdn.jsdelivr.net/npm/@pwabuilder/pwaupdate
   const el = document.createElement('pwa-update');
        document.body.appendChild(el);
</script>
```

ADD MANIFEST FILE

Inside your /static directory, create a new file called manifest.manifest or manifest.json.

Then add the following code snippet to it.

```
"name": "",
"short name": "",
"theme color": "#000000",
"background color": "#000000",
"display": "fullscreen",
"scope": "/",
"start url": "/",
"orientation": "any",
"icons": [
    "src": "/icon-512x512.png",
    "sizes": "512x512",
    "type": "image/png"
```

ADD SERVICE WORKER FILE

Inside your /static directory, create a new file called pwa-sw.js. Then add the following code snippet to it.

https://gist.github.com/erictherobot/4cef30ba1edc184c

ADD REGISTER SERVICE WORKER FILE

Inside your /static directory, create a new file called pwa-sw-register.ts. Then add the following code snippet to it.

https://gist.github.com/erictherobot/5778631a1fcc72d4

ADD ASSETS

Inside your /static directory, create a set of new image / icon files.

```
favicon.ico
icon-192x192.png
icon-256x256.png
icon-384x384.png
icon-512x512.png
manifest-icon-192.maskable.png
manifest-icon-512.maskable.png
```

You can use an online tool like

https://realfavicongenerator.net which will give you all the assets needed from uploading a single image.

THAT'S IT!

You've created a Progressive Web App.

Your users will thank you!

QUESTIONS?

Contact Eric David Smith / @erictherobot