

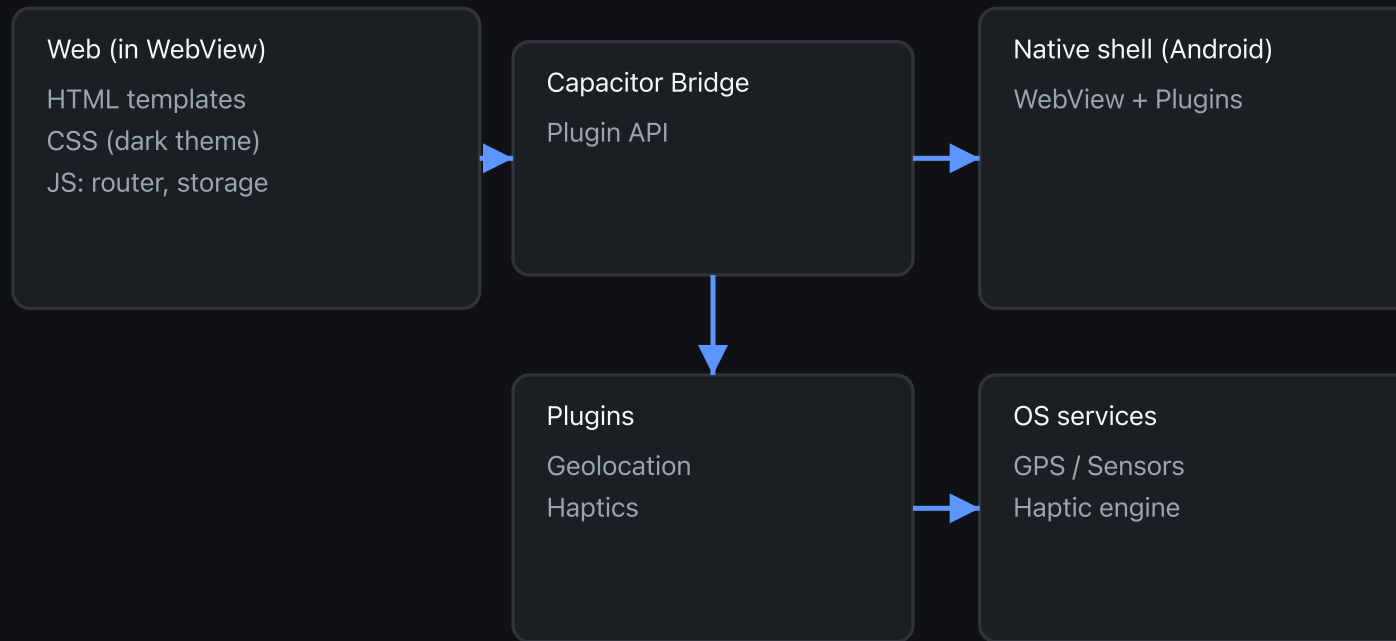
From Zero to Mobile: Web + Capacitor

- Fresh macOS to a running Android app
- Plain HTML/CSS/JS + tiny router
- Capacitor: Geolocation + Haptics

What we'll build

- Dark start screen (templates + CSS)
- Do Action → fullscreen circle zoom
- Get Location → GPS + haptics
- Settings → localStorage persistence

Architecture overview



Setup (macOS)

1. Xcode Command Line Tools: `xcode-select --install`
2. Homebrew
3. nvm + Node \geq 20 (we use 22)
4. Java 21 via Homebrew
5. Android Studio + SDKs

Project structure

```
www/  
  index.html  
  css/styles.css  
  js/  
    storage.js  
    capacitor-bridge.js  
    router.js  
    app.js
```

Running the app

```
source ~/.nvm/nvm.sh && nvm use 22
npm install
npm install @capacitor/core @capacitor/cli @capacitor/android \
  @capacitor/geolocation @capacitor/haptics
npx cap sync android
npx cap open android
```

Code tour: templates + router

- index.html contains `<template id="tpl-start">`, `tpl-about`, `tpl-settings`
- router maps `#hash` → template id
- After render, bind events per screen

Capacitor bridge

- Geolocation: GPS (with browser fallback)
- Haptics: vibrate on click/success
- Graceful degradation on web

Resources

HTML / CSS / JavaScript:

- [MDN Web Docs](#) - Comprehensive web standards reference
- [HTML <template> element](#)
- [CSS Custom Properties](#)

Capacitor:

- [Capacitor Docs](#) - Official documentation
- [Geolocation Plugin](#)
- [Haptics Plugin](#)
- [Plugin Index](#) - Community & official plugins