



**PWA**

Progressive Web App





“

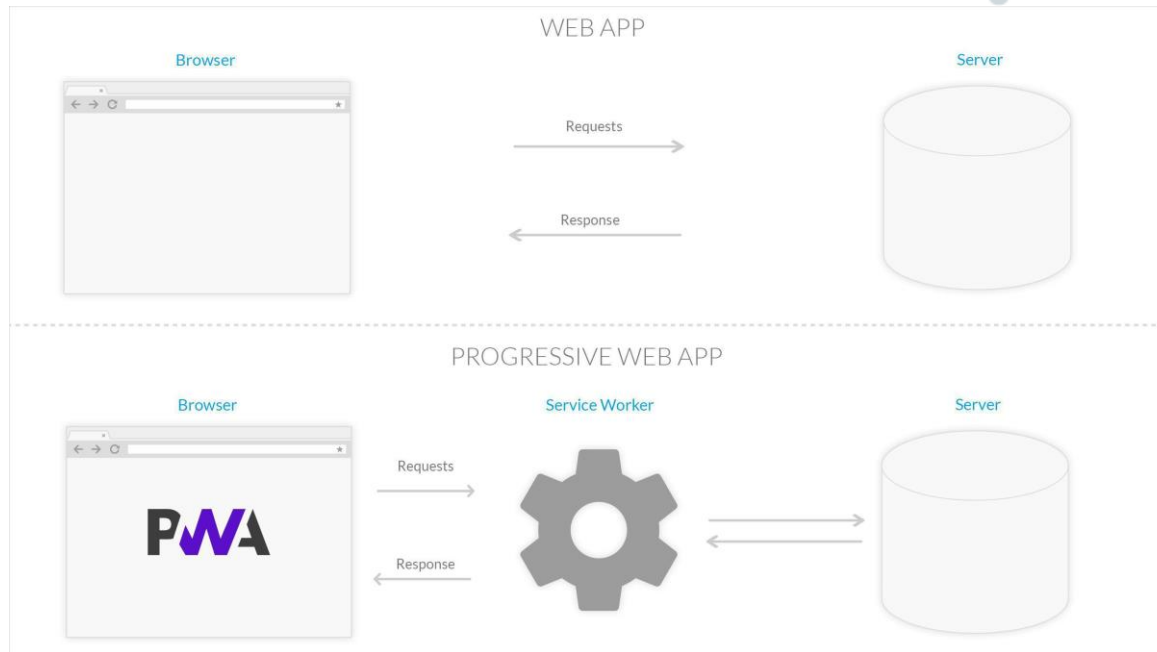
Il termine **Progressive Web App** (PWA, applicazioni web progressive) viene utilizzato per indicare una nuova metodologia per sviluppare software. Diversamente dalle applicazioni tradizionali, le progressive web apps sono un ibrido tra le normali pagine web (o siti web) e le applicazioni mobili. Questo nuovo modello di applicazioni cerca di combinare le possibilità offerte dalla maggior parte dei moderni browser con i benefici dell'utilizzo in mobilità.

[https://it.wikipedia.org/wiki/Progressive\\_web\\_app](https://it.wikipedia.org/wiki/Progressive_web_app)

## Few Requirements for PWA

- HTTPS
- Service Worker
- App Shell
- App manifest
- Connectivity-independent

# PWA: Service Worker



- Intercepting network requests
- Caching
- retrieving resources from the cache
- delivering push messages

<https://developers.google.com/web/tools/workbox>

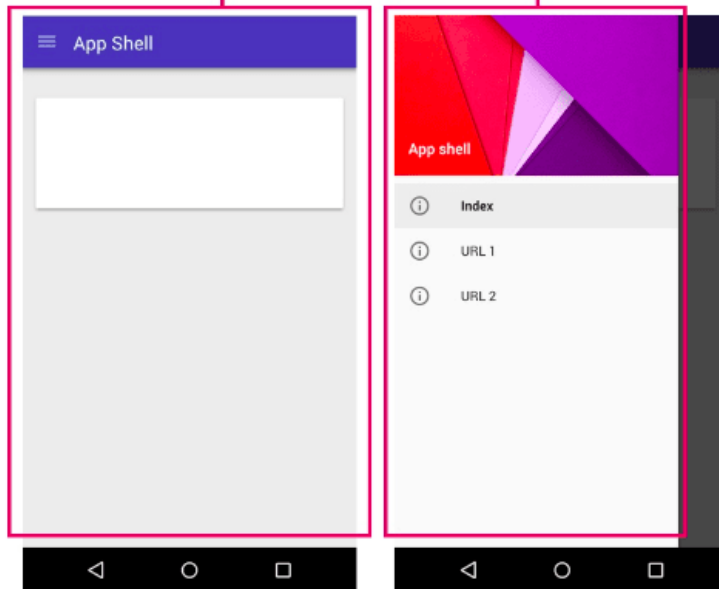
<https://ionicframework.com/pwa>

[https://developers.google.com/web/fundamentals/codelabs/offline#top\\_of\\_page](https://developers.google.com/web/fundamentals/codelabs/offline#top_of_page)

[https://blog.goodbarber.com/it/I-Service-Worker\\_a555.html](https://blog.goodbarber.com/it/I-Service-Worker_a555.html)

# PWA: App shell

application shell



Cached shell loads **instantly** on repeat visits.

content



Dynamic content then populates the view

<https://developers.google.com/web/fundamentals/architecture/app-shell?hl=it>

## PWA: Manifest

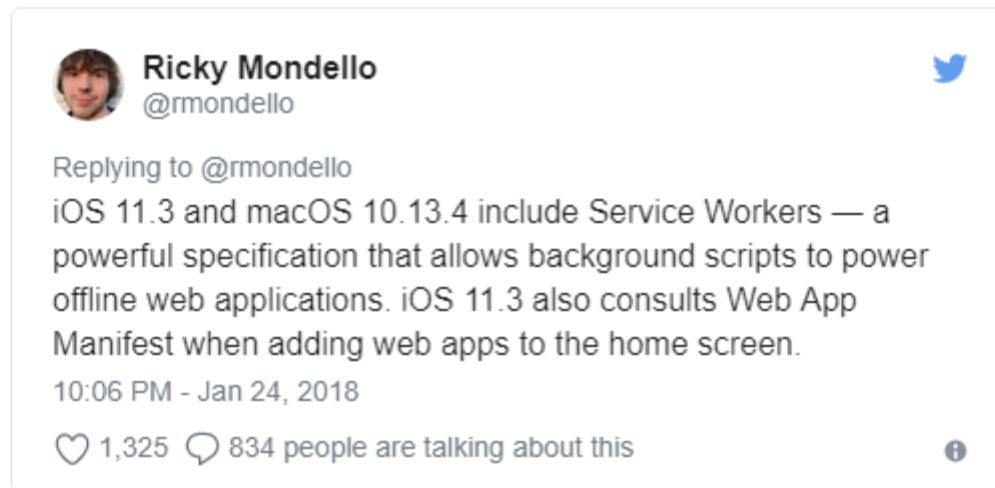
```
{
  "short_name": "AirHorner",
  "name": "Kinlan's AirHorner of Infamy",
  "icons": [
    {
      "src": "launcher-icon-1x.png",
      "type": "image/png",
      "sizes": "48x48"
    },
    {
      "src": "launcher-icon-2x.png",
      "type": "image/png",
      "sizes": "96x96"
    },
    {
      "src": "launcher-icon-4x.png",
      "type": "image/png",
      "sizes": "192x192"
    }
  ],
  "start_url": "index.html?launcher=true"
}
```




<https://developers.google.com/web/fundamentals/web-app-manifest/>  
<https://developer.mozilla.org/en-US/docs/Web/Manifest>

## PWA: Safari

Update : ios 11.3 supports web app manifest and service worker

A screenshot of a Twitter tweet. The tweet is from Ricky Mondello (@rmondello) and is a reply to another user with the same handle. The text of the tweet discusses the support for Service Workers and Web App Manifest in iOS 11.3 and macOS 10.13.4. The tweet has 1,325 likes and 834 replies. The tweet is displayed in a light gray box with a blue Twitter bird icon in the top right corner.

 **Ricky Mondello**  
@rmondello

Replying to @rmondello

iOS 11.3 and macOS 10.13.4 include Service Workers — a powerful specification that allows background scripts to power offline web applications. iOS 11.3 also consults Web App Manifest when adding web apps to the home screen.

10:06 PM - Jan 24, 2018

♥ 1,325 💬 834 people are talking about this

Tweet about Service worker and manifest support

<https://medium.com/awebdeveloper/progressive-web-apps-pwas-are-coming-to-a-safari-near-you-216812aba5a>

# PWA: Sample

Table of Known Patterns for Building PWAs

Use-case	Patterns	Examples
Publishing	Full SSR	<a href="https://babe.news/">https://babe.news/</a> <a href="https://ampbyexample.com">https://ampbyexample.com</a> <a href="https://ampproject.org">https://ampproject.org</a>
Publishing	Application Shell	<a href="https://app.jalantikus.com/">https://app.jalantikus.com/</a> <a href="https://m.geo.tv/">https://m.geo.tv/</a> <a href="https://app.kompas.com/">https://app.kompas.com/</a> <a href="https://www.nfl.com/now/">https://www.nfl.com/now/</a> <a href="https://www.chromestatus.com">https://www.chromestatus.com</a>
Publishing	AppShell + SSR content for entry pages	<a href="https://react-hn.appspot.com">https://react-hn.appspot.com</a> <a href="https://www.polymer-project.org/1.0/">https://www.polymer-project.org/1.0/</a>
Publishing	Streams for body content / UI	<a href="https://wiki-offline.jakearchibald.com/wiki/The_Raccoons">https://wiki-offline.jakearchibald.com/wiki/The_Raccoons</a>
Social	AppShell	<a href="https://web.telegram.org/">https://web.telegram.org/</a>
E-commerce	Application Shell	<a href="https://m.aliexpress.com/">https://m.aliexpress.com/</a> <a href="https://kongax.konga.com/">https://kongax.konga.com/</a> <a href="https://m.flipkart.com (mobile/emulate)">https://m.flipkart.com (mobile/emulate)</a> <a href="https://m.airberlin.com/en/pwa">https://m.airberlin.com/en/pwa</a> <a href="https://shop.polymer-project.org/">https://shop.polymer-project.org/</a>
E-commerce	AppShell + SSR content for entry page	<a href="https://selio.com/ (try on mobile/emulate)">https://selio.com/ (try on mobile/emulate)</a> <a href="https://lite.5milesapp.com/ (partial)">https://lite.5milesapp.com/ (partial)</a>
Conference	AppShell	<a href="https://events.google.com/io2016/schedule">https://events.google.com/io2016/schedule</a>

## Top PWA examples

### Table of Contents

- I. Trivago Hotel Booking
- II. Pinterest
- III. Tinder
- IV. 9Gag
- V. OLX
- VI. Starbucks
- VII. Forbes

<https://appmaker.xyz/pwa-examples-successful-progressive-web-apps/>

[https://developers.google.com/web/ilt/pwa/introduction-to-progressive-web-app-architectures#table\\_of\\_known\\_patterns\\_for\\_building\\_pwas](https://developers.google.com/web/ilt/pwa/introduction-to-progressive-web-app-architectures#table_of_known_patterns_for_building_pwas)



# Push Notification



Push messages enable you to bring information to the attention of your users even when they're not using your website/app.

<https://developers.google.com/web/ilt/pwa/introduction-to-push-notifications>