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# **PROGRESSIVE WEB APP (INTRODUCTION)**

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Lai Weng Han (Johnson)

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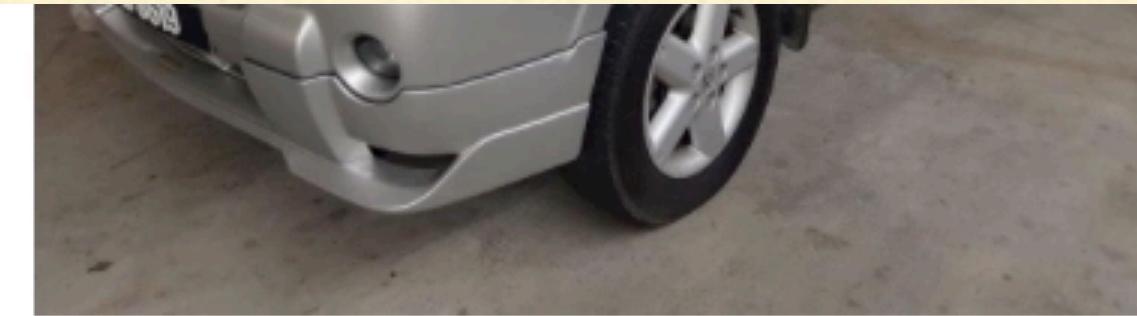
**PHYTO**Mark



**2011 Honda Civic 1.8 I-VTEC AT**  
**#INSP00005**

Current Price RM 48,000

Details



**2013 Nissan X-Trail 2.5 4WD AT**  
**#INSP00023**

Current Price RM 36,000



**2009 Perodua Viva 1.0 SX MT**  
**#INSP00042**

Current Price RM 8,500

Details



**2014 Volkswagen Polo 1.6 Sedan AT**  
**#INSP00011**

Current Price RM 39,000

Details



**2008 Perodua Myvi 1.3 EZI AT**  
**#INSP00041**

Current Price RM 15,500

Details



[www.phytomark.com/dealer/bid.aspx?id=42](http://www.phytomark.com/dealer/bid.aspx?id=42)



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# UTIL



<https://whatsapp.surge.sh/>

Lighthouse  
Version: 2.3.0

Results for: <https://whatsapp.surge.sh/>  
Sep 23, 2017, 3:31 AM UTC • [Runtime settings](#)

Category	Score
Progressive Web App	100
Performance	90
Accessibility	94
Best Practices	92

**Progressive Web App**  
These audits validate the aspects of a Progressive Web App, as specified by the baseline [PWA Checklist](#). (100)

- 0 failed audits
- > 11 Passed Audits
- > Manual checks to verify

**Performance**  
These encapsulate your app's performance. (90)

Metrics  
These metrics encapsulate your app's performance across a number of dimensions.

Dimension	Value
314 ms	Initial render time
828 ms	First contentful paint
942 ms	Time to interactive
1.3 s	Load time
1.6 s	First input delay
1.9 s	Large resource download
2.2 s	Resource blocking
2.5 s	Visual refresh rate
2.8 s	Resource size
3.1 s	Resource count

https://extension://51pmidconlpinefhhmammtpppbx0cfd709f-aaa0-42bc-a5be-e1d359aeec28#owa

<https://whatsapp.surge.sh>

**UTIL**

WhatsApp

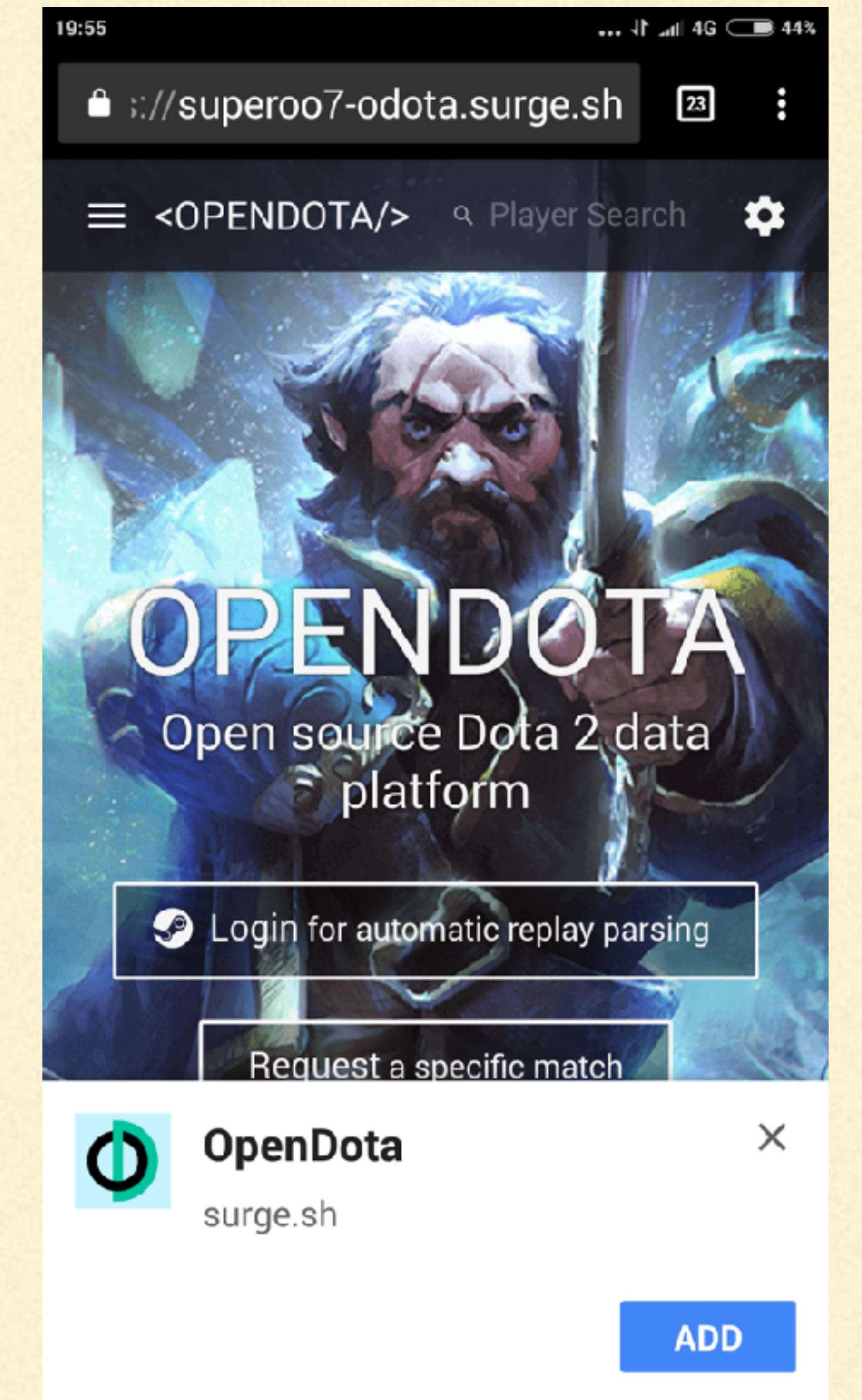
insert phone number with country code

Open Copy

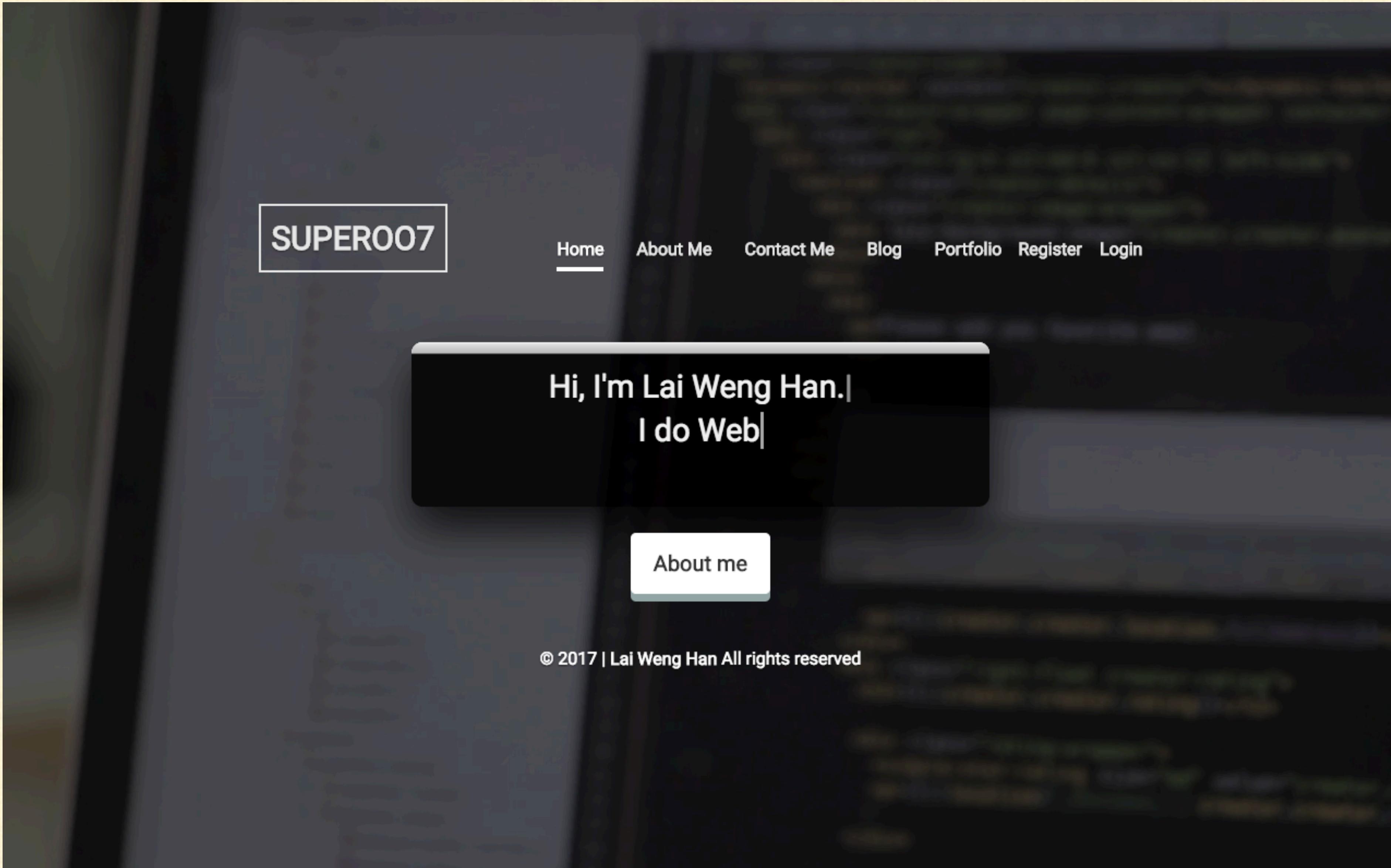
# OPEN DOTA



<https://opendota.com>



OpenDota



SUPER007

[Home](#) [About Me](#) [Contact Me](#) [Blog](#) [Portfolio](#) [Register](#) [Login](#)

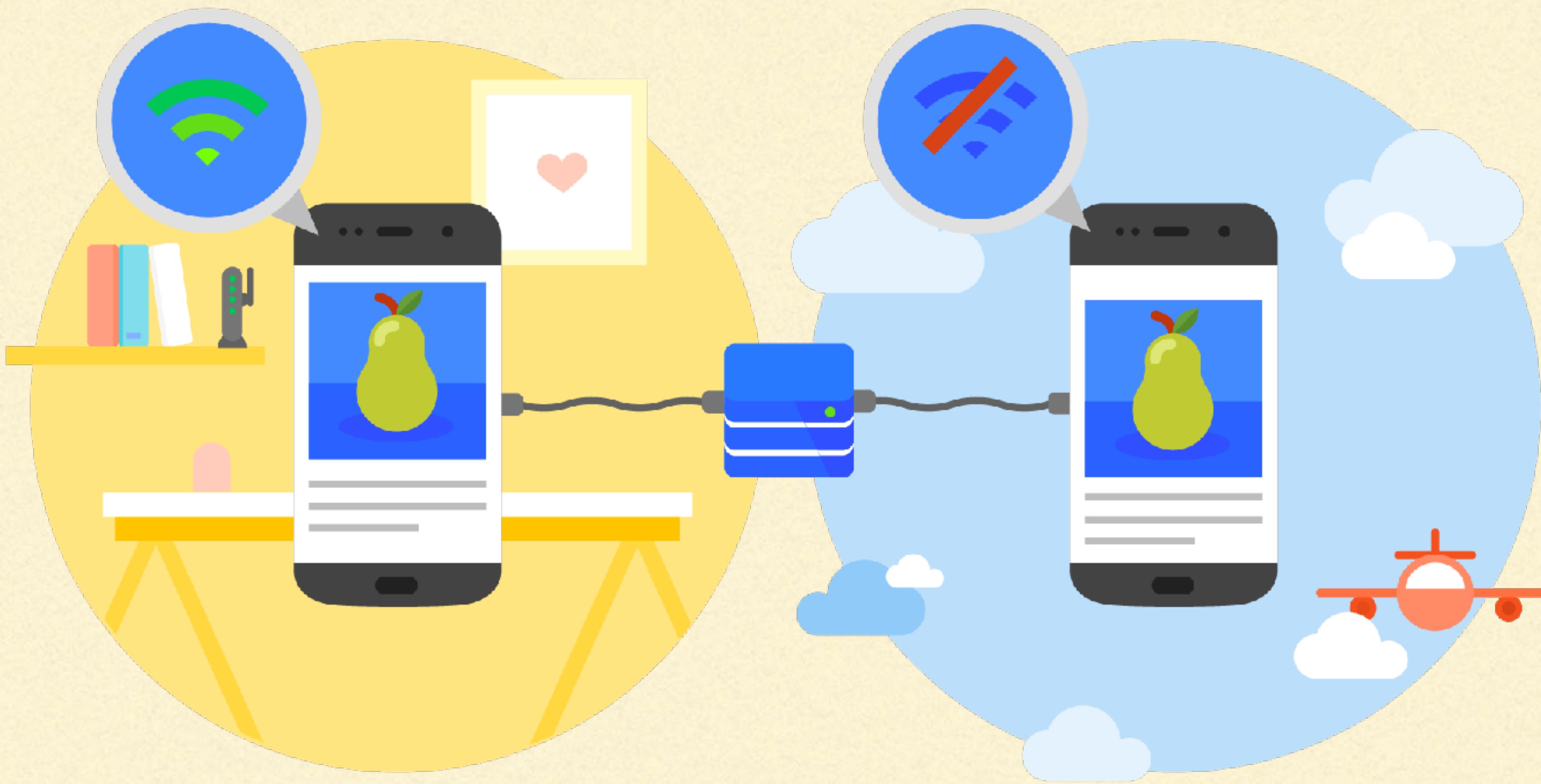
Hi, I'm Lai Weng Han.  
I do Web

[About me](#)

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<https://www.wenghan.me>

# WHAT IS PROGRESSIVE WEB APP?



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“a term used to denote web applications  
that use the latest web technologies.”

*–Wikipedia*

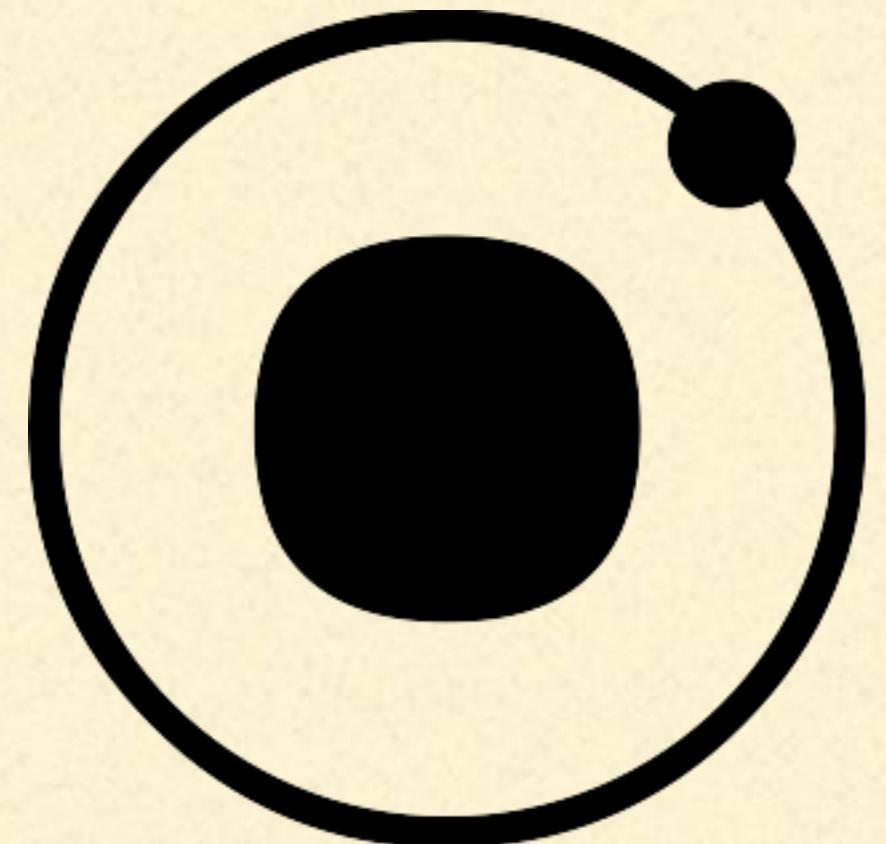
W

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“a web app that uses modern web  
capabilities to deliver an app-like  
experience to users.”

*—Ionic Framework*



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“a couple of modern web features that you can add to any existing web app, to further enhance UX.”

*—My Definition*

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 **This is an experimental technology**

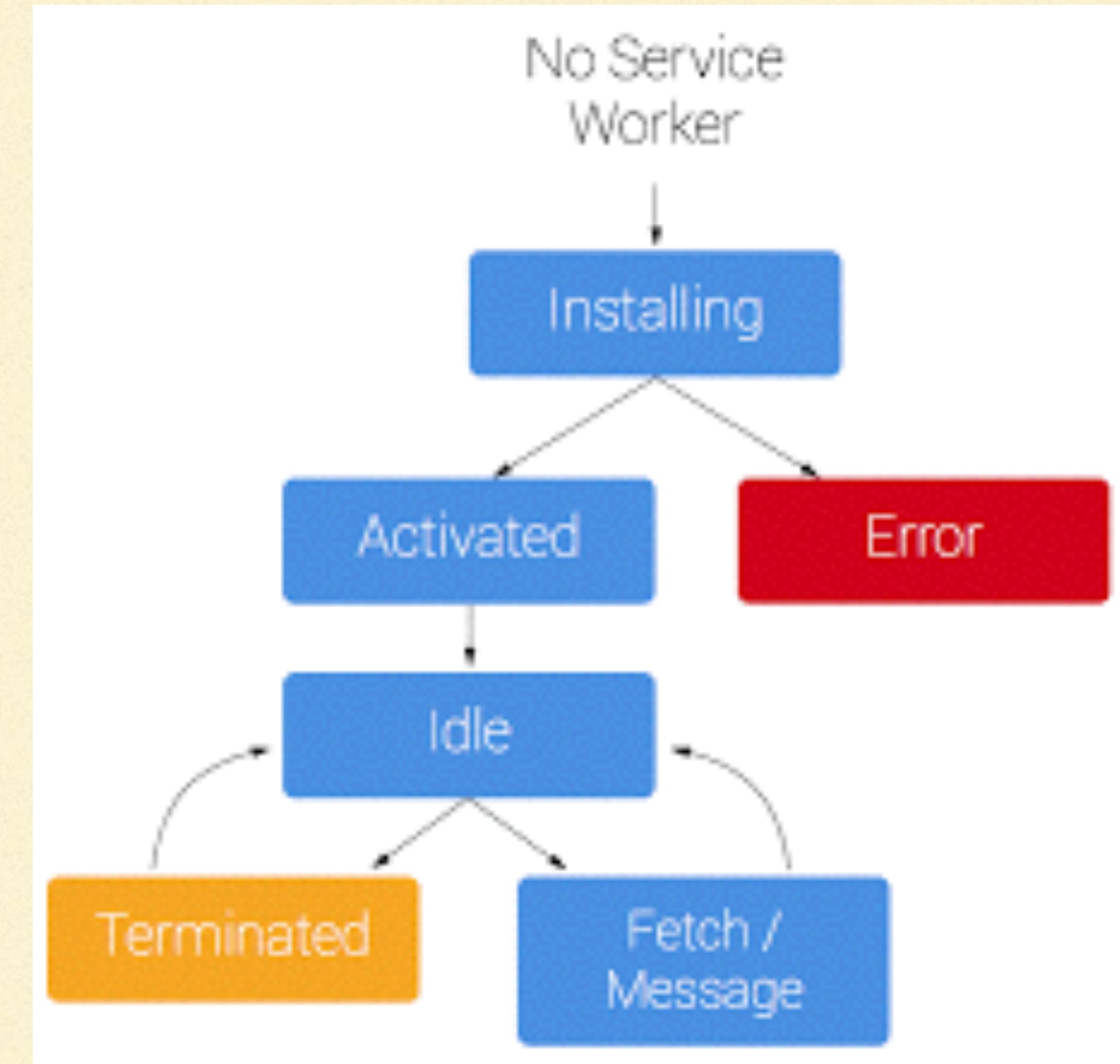
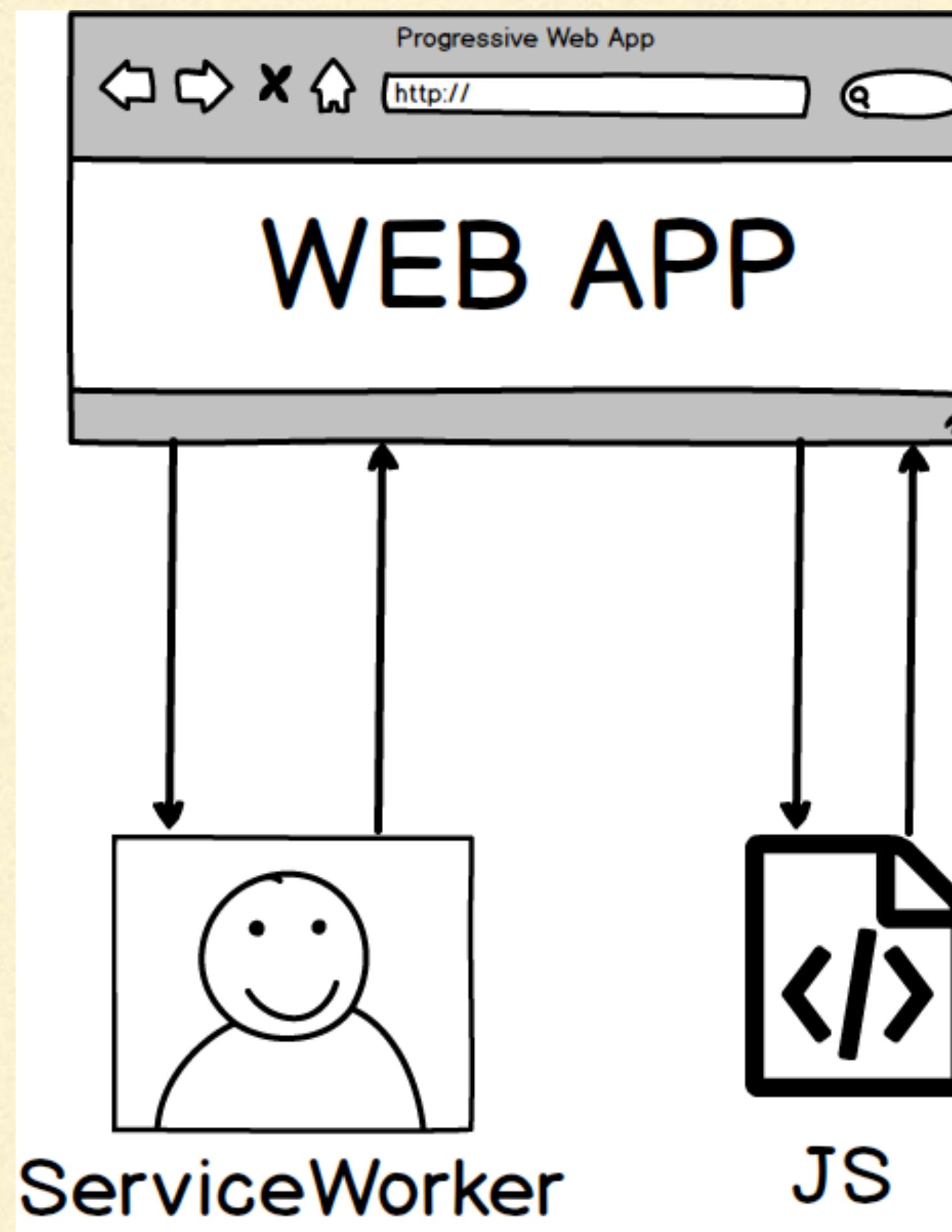
Check the [Browser compatibility table](#) carefully before using this in production.

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# Service Worker (Caching)

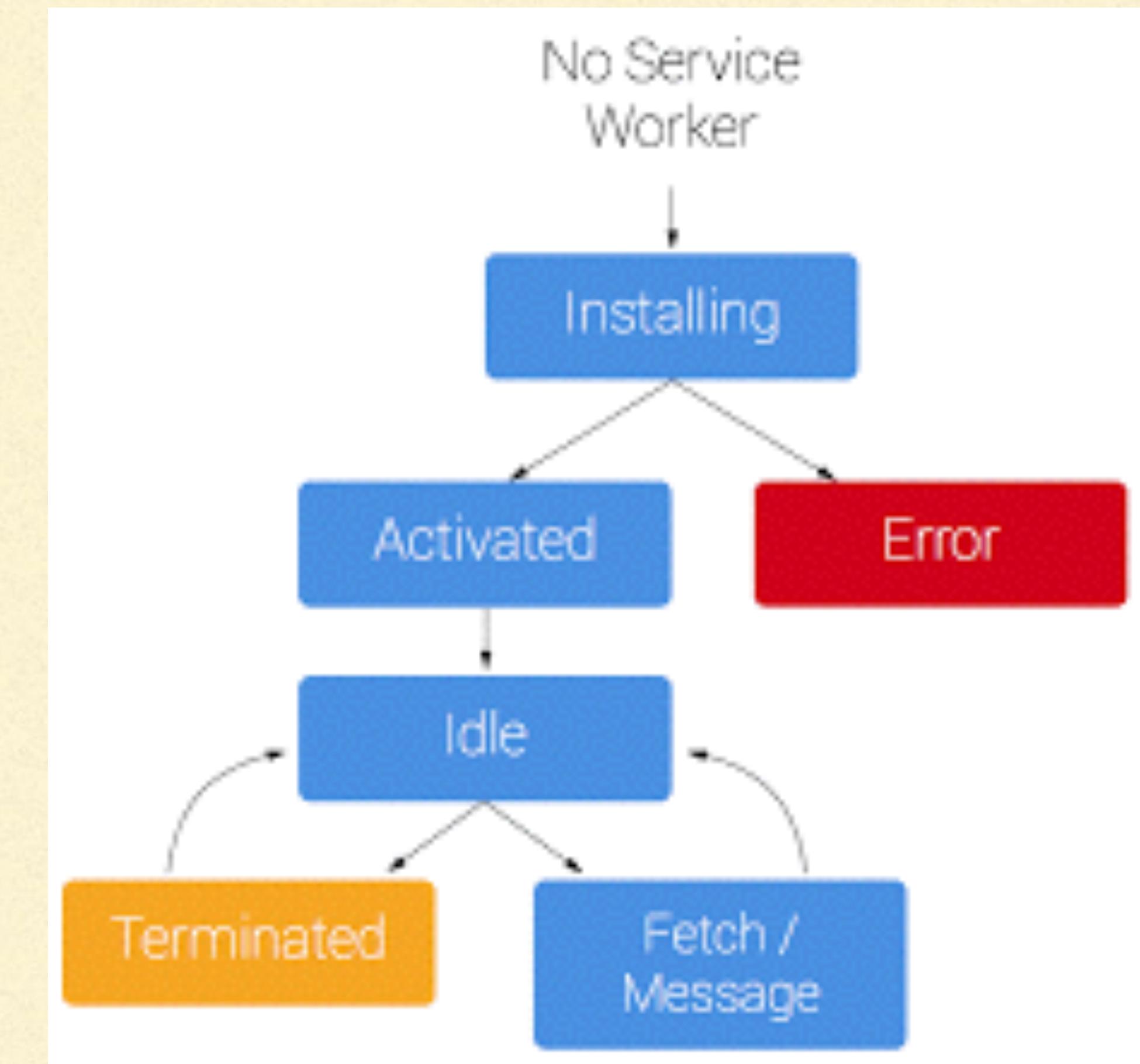
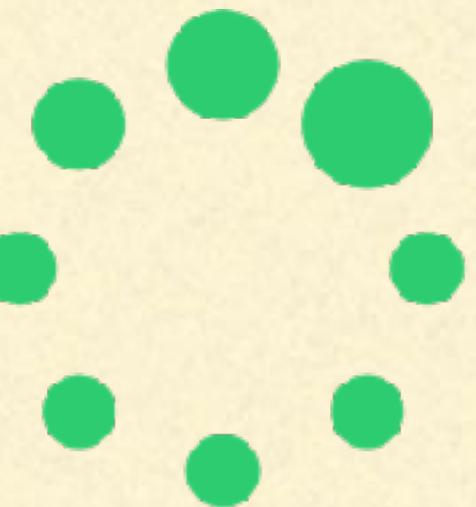
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# SERVICE WORKER



# INSTALLING

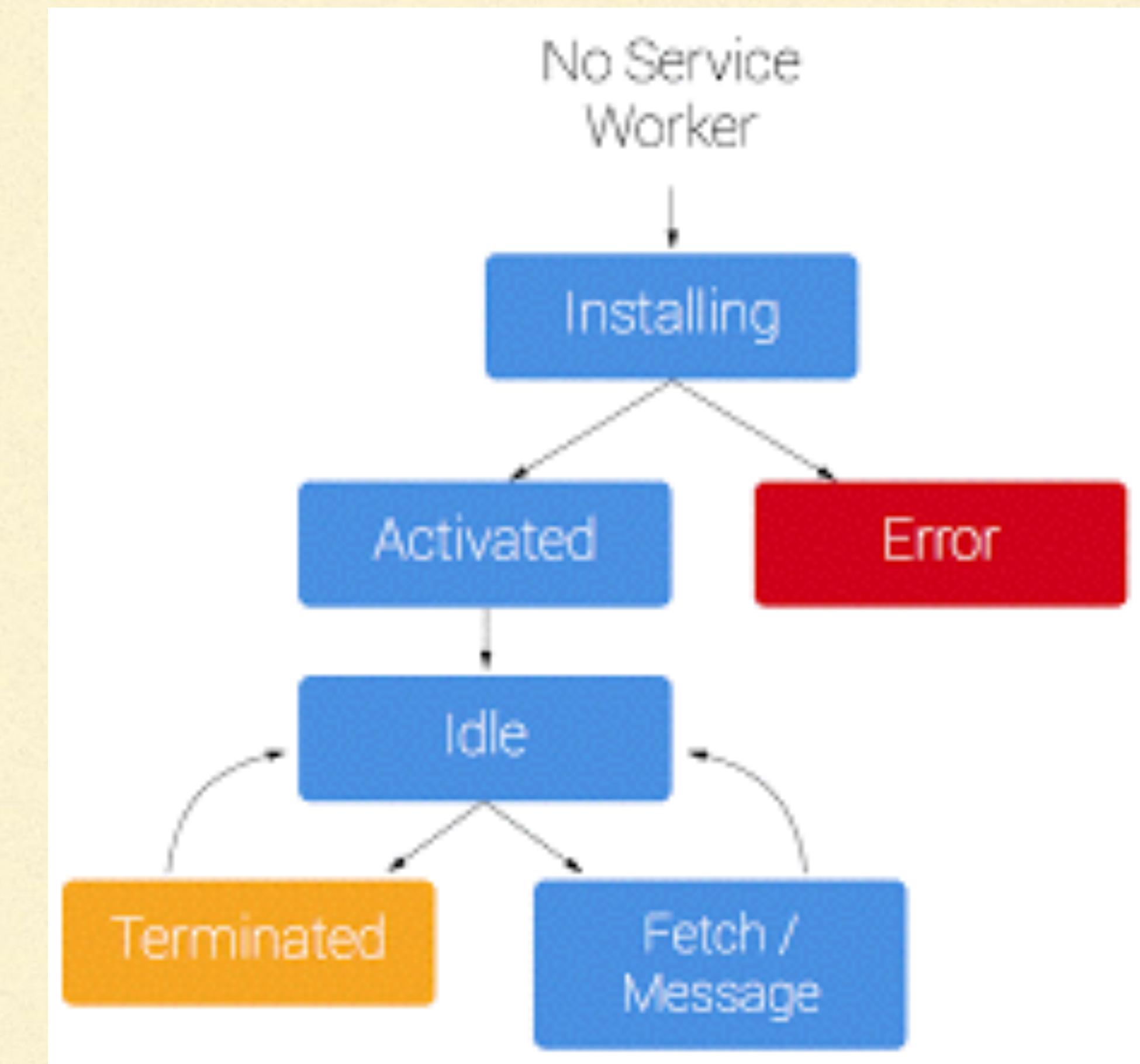
- Mainly to do Caching related
- Static Caching



# ACTIVATING

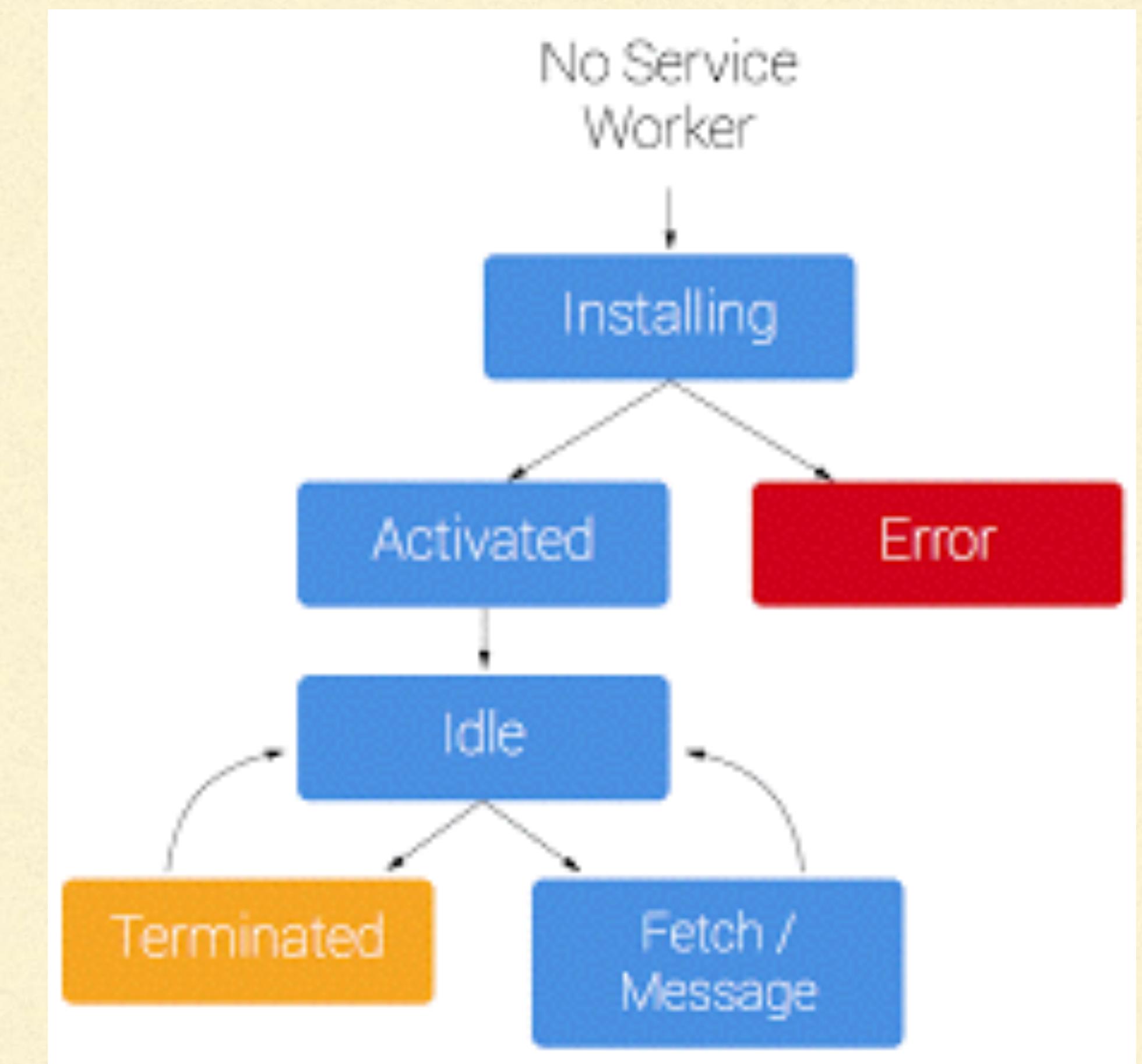


- After Installing
- Delete Old Cache



# FETCH EVENT

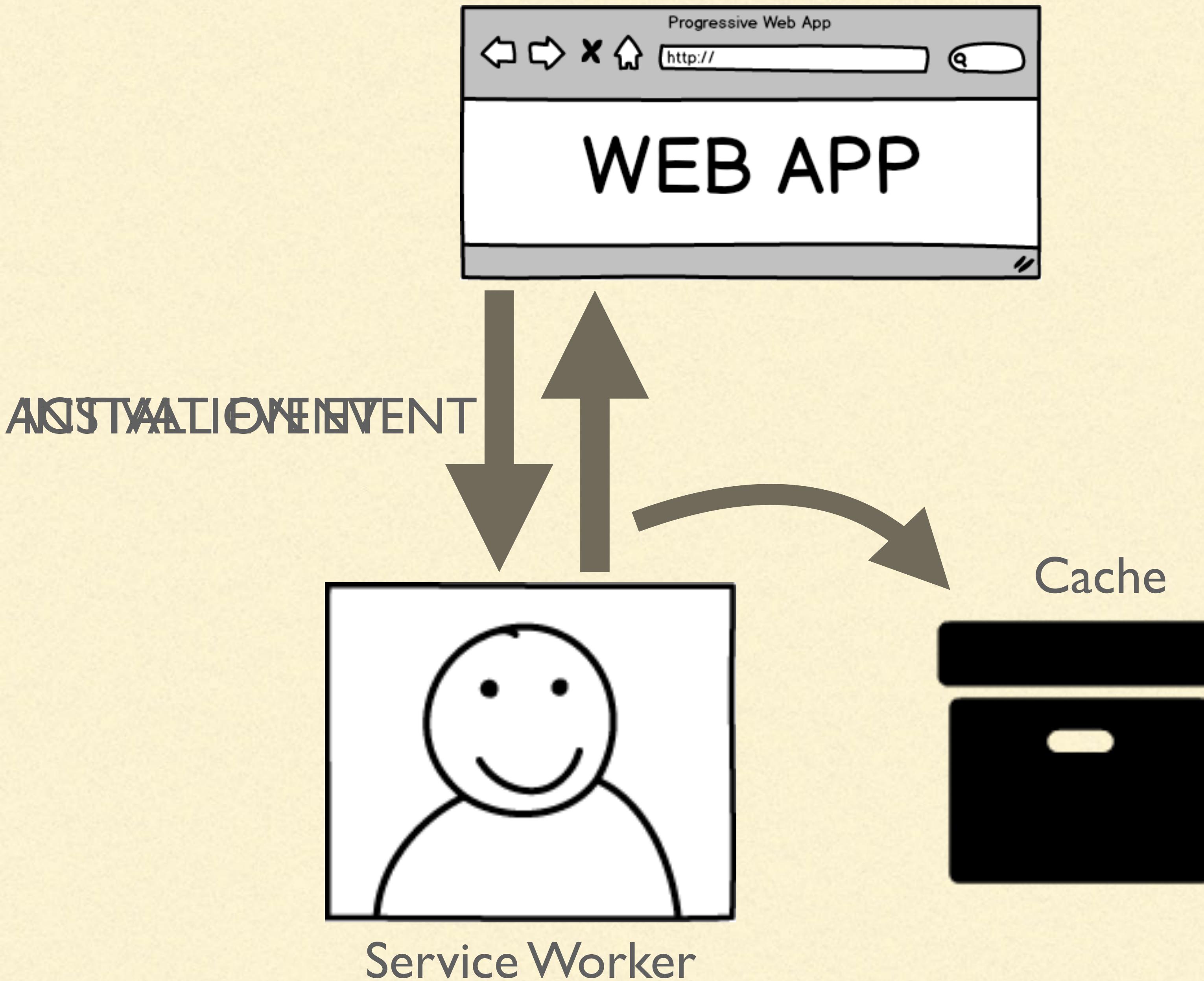
- Fetch is replacement of AJAX
- Fetching Data in JSON / Images / Fonts / CSS



# Caching Strategy

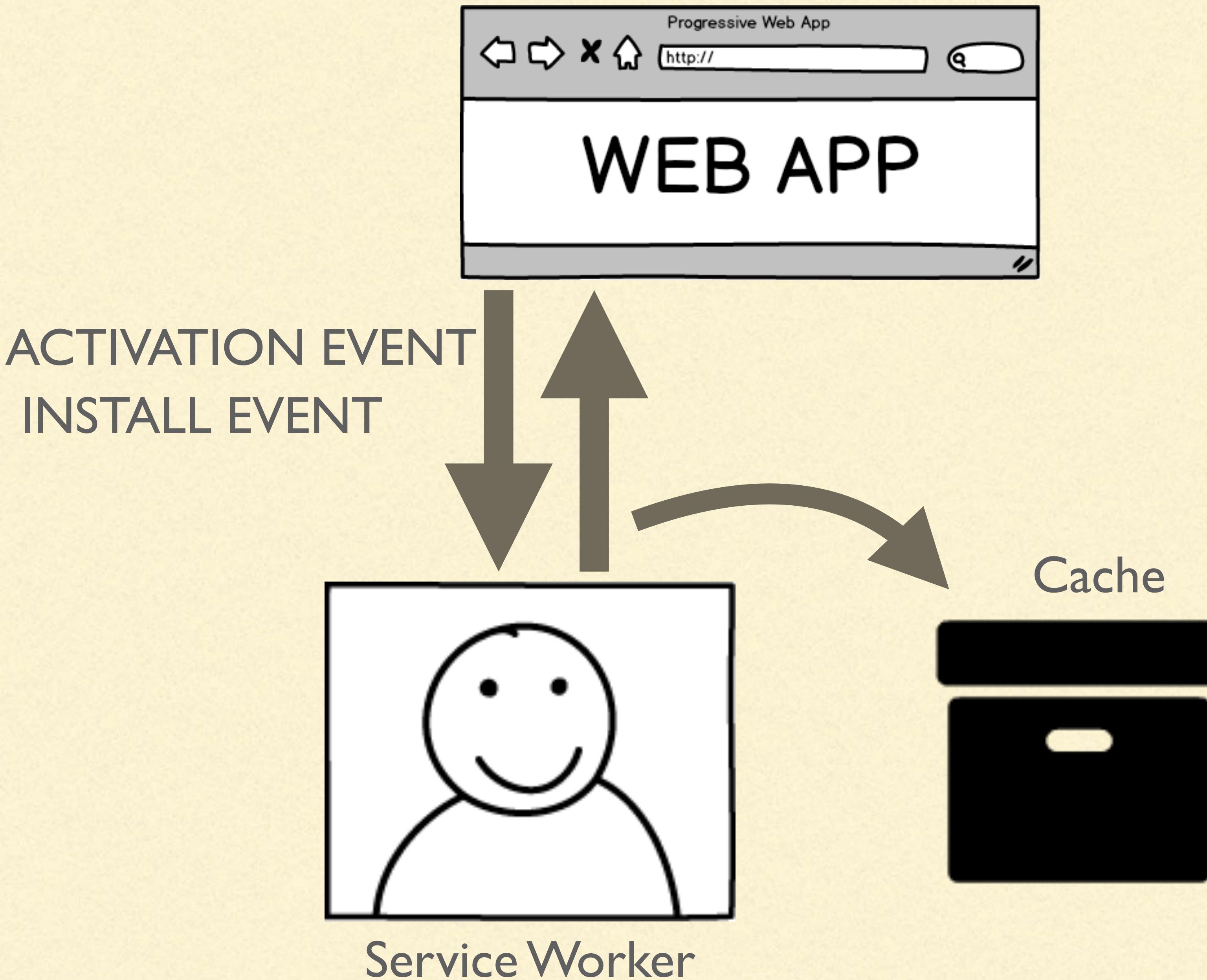
THE OFFLINE COOKBOOK

<https://developers.google.com/web/fundamentals/instant-and-offline/offline-cookbook/>



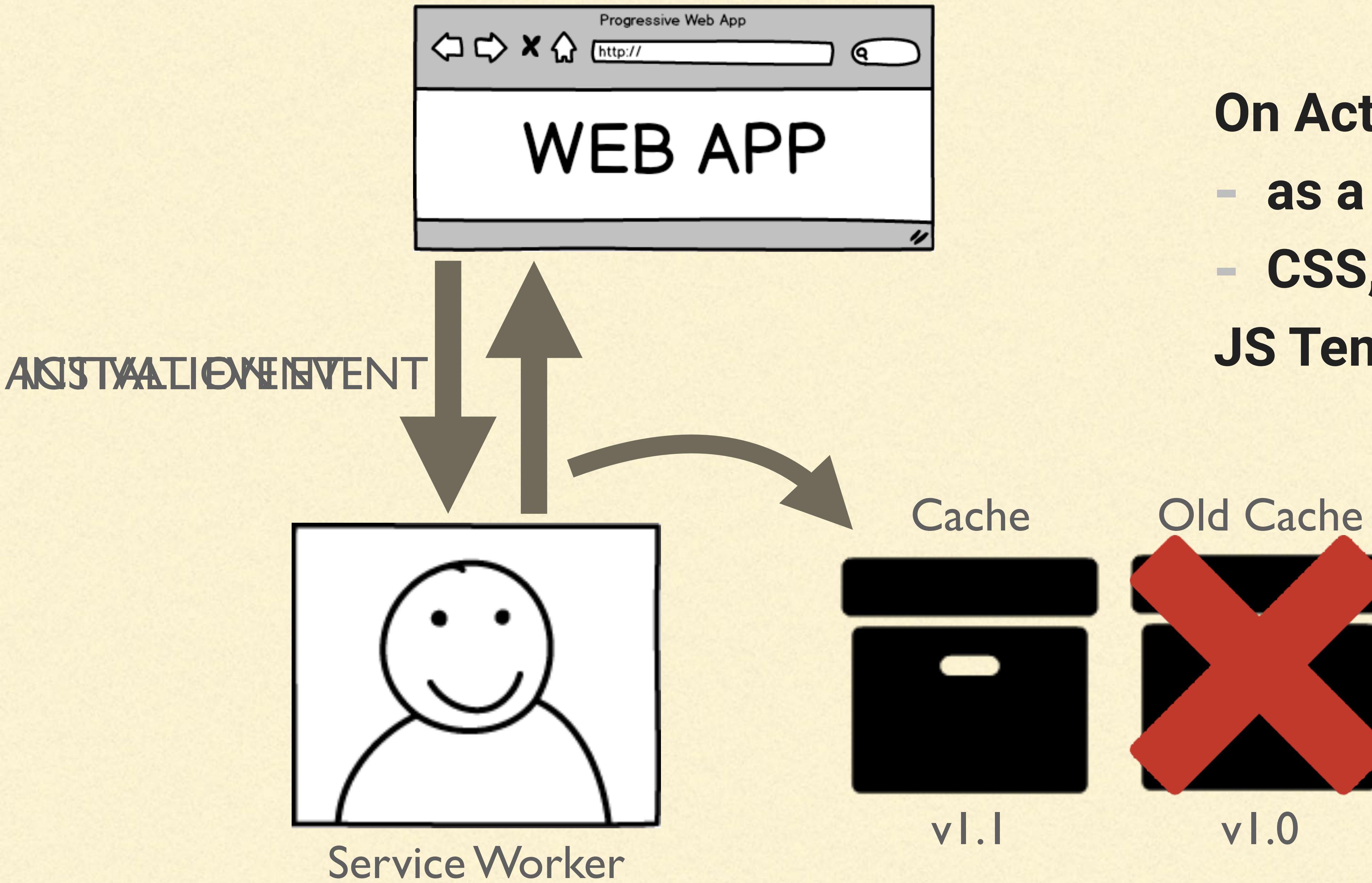
## On install

- as a dependency
- CSS, Images, fonts, JS Templates



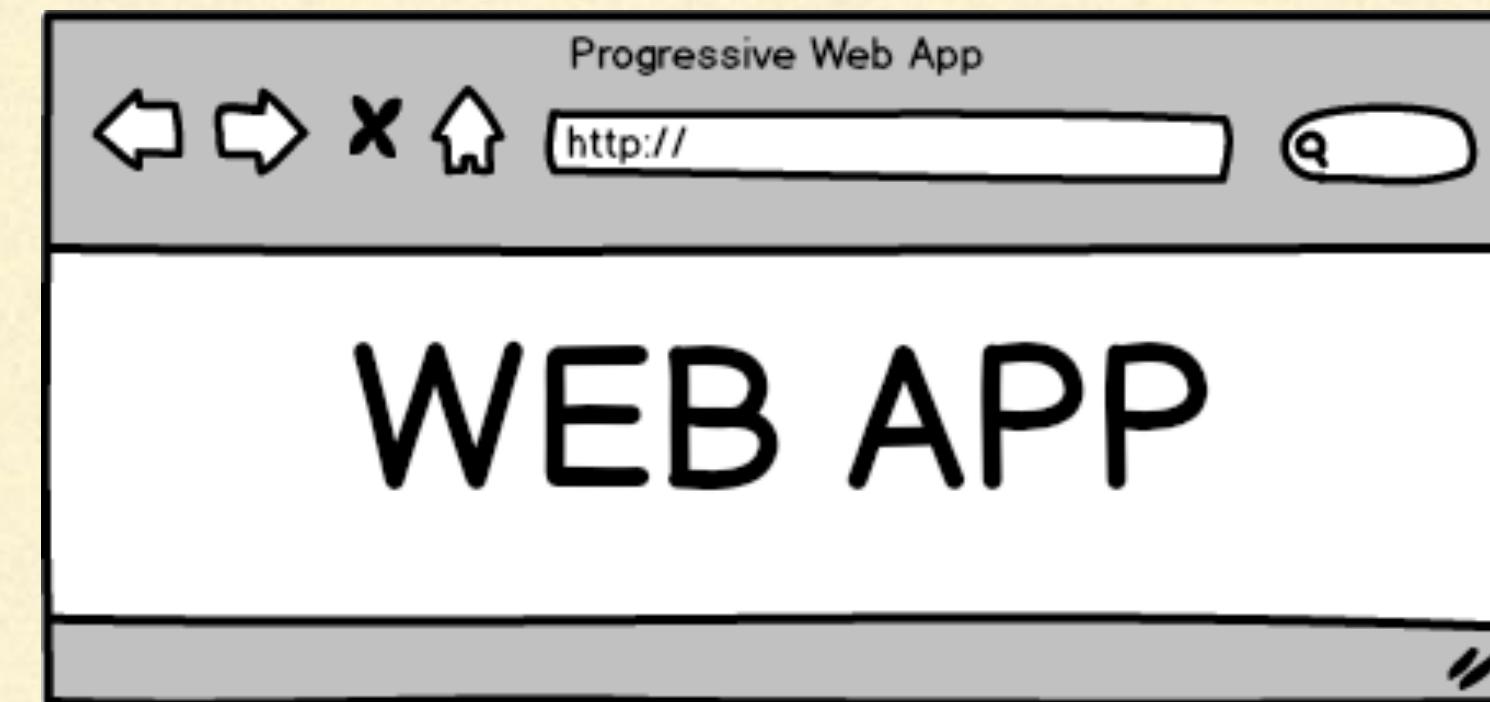
## On install

- not as a dependency

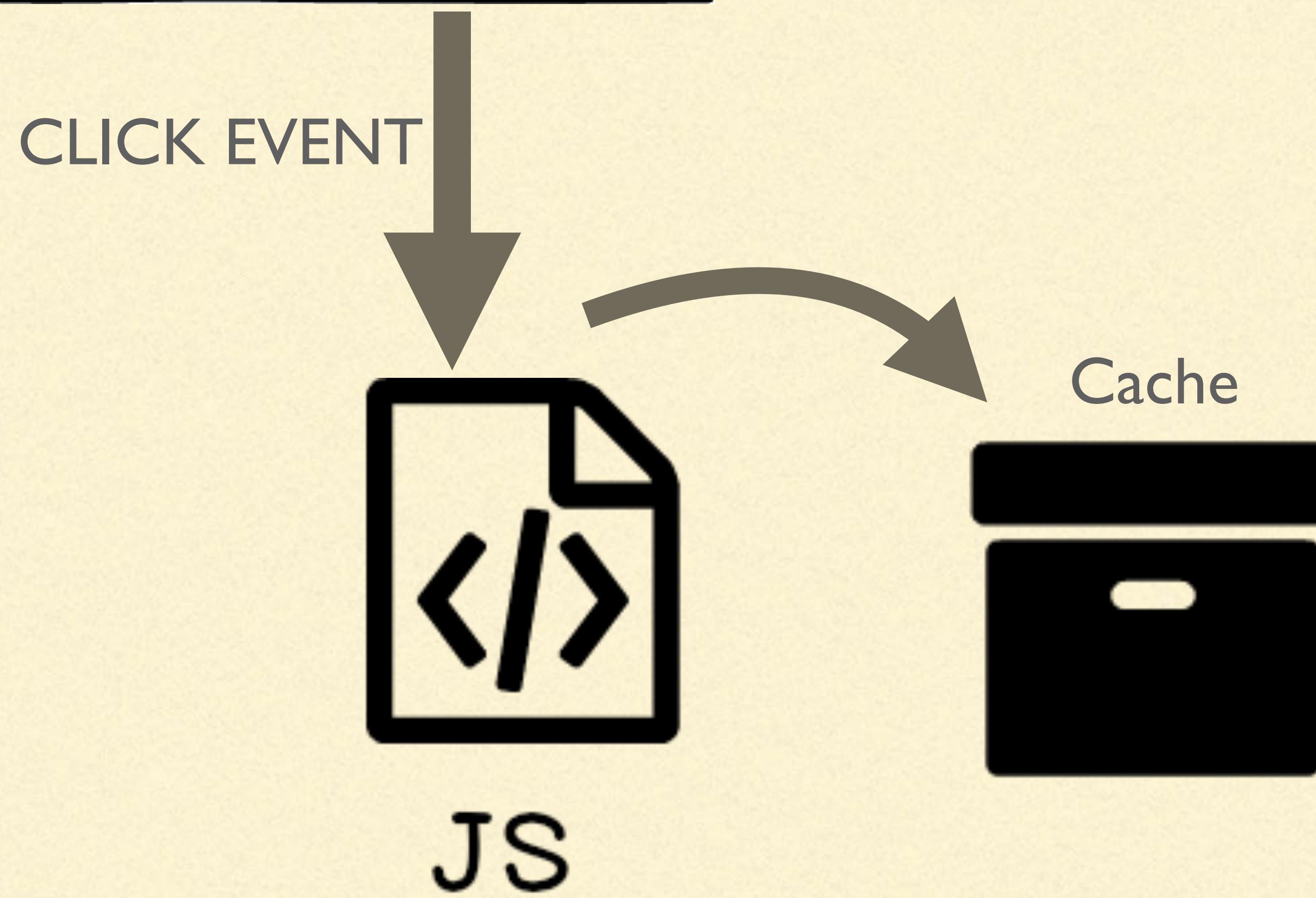


## On Activate

- as a dependency
- CSS, Images, fonts, JS Templates

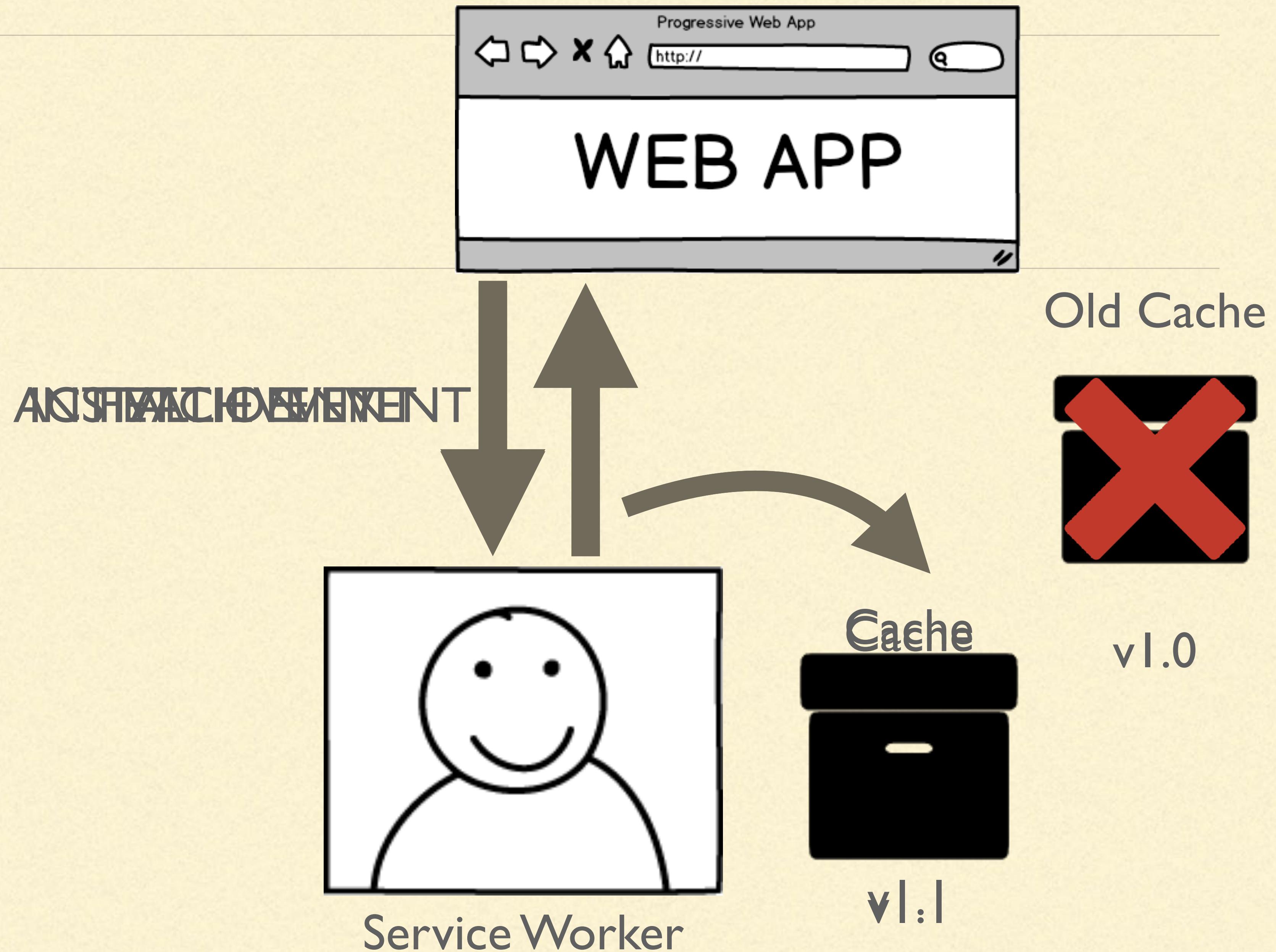


## On User Interaction



# MY STRATEGY

- Static Caching Image / Video
- Dynamic Caching Fonts and Framework
- Fetch for Dynamic Data (JSON)

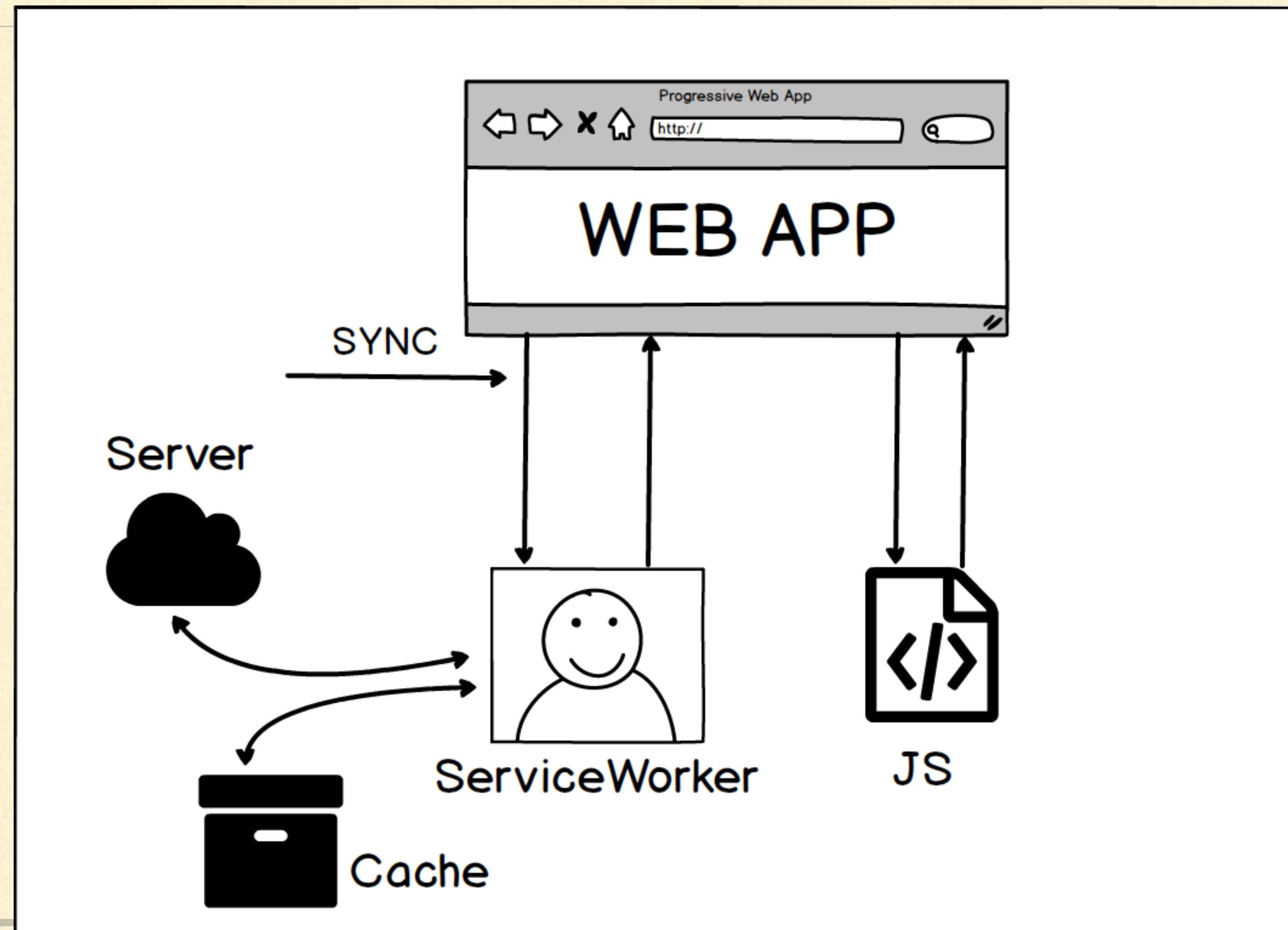
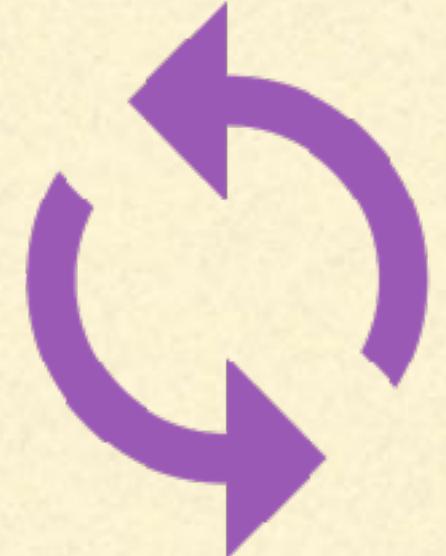


# DEMO

# Caching

<https://barcamp.surge.sh>

# BACKGROUND SYNC





**HTTP**

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**HTTP**



# ADD TO HOMESCREEN

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## ⚠ Non-standard

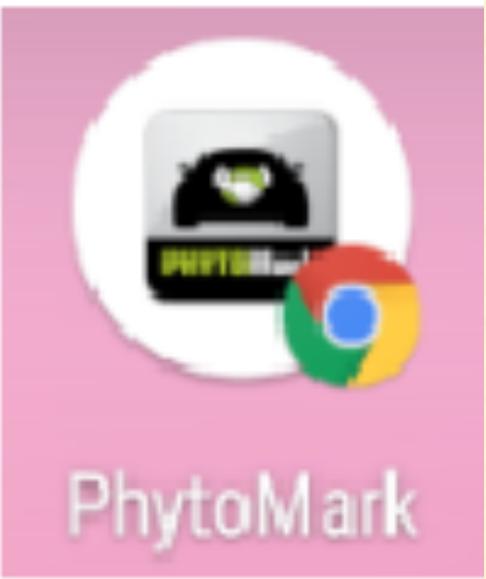
This feature is non-standard and is not on a standards track. Do not use it on production sites facing the Web: it will not work for every user. There may also be large incompatibilities between implementations and the behavior may change in the future.



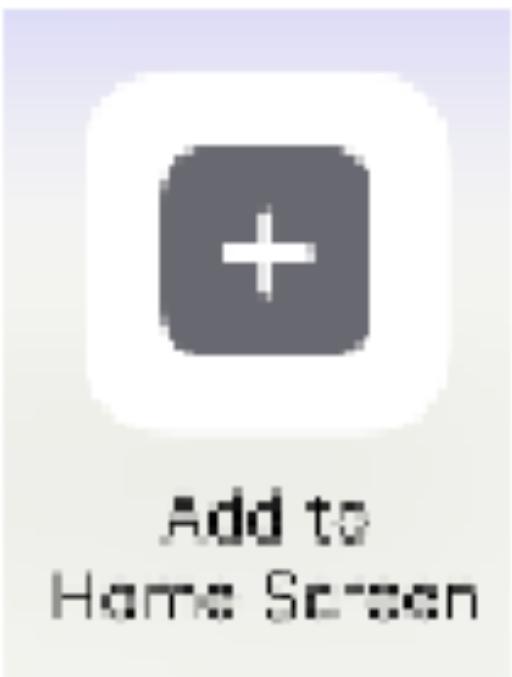
# PhytoMark

surge.sh

X



ADD



# REQUIREMENT

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- Service Worker Registered
- Serve over HTTPS
- manifest.json
- Minimum Benchmark



# MANIFEST

- Meta Tag for Website
- Declare how the app look like as icon
- Orientation. Start url and more!



```
{  
  "name": "PhytoMark",  
  "short_name": "PhytoMark",  
  "theme_color": "#99CB73",  
  "background_color": "#99CB7",  
  "display": "standalone",  
  "orientation": "portrait",  
  "Scope": "/",  
  "start_url": "/",  
  "icons": [  
    {  
      "src": "/images/icons/  
icon-72x72.png",  
      "sizes": "72x72",  
      "type": "image/png"  
    },  
  ],  
  "splash_pages": null  
}
```



```
<meta name="apple-mobile-web-app-capable" content="yes">
<meta name="apple-mobile-web-app-status-bar-style" content="black">
<meta name="apple-mobile-web-app-title" content="PhytoMark">
<link rel="apple-touch-icon" href=".//images/icons/icon-72x72.png" sizes="72x72">
```



```
<meta name="msapplication-TileImage" content=".//images/icons/icon-144x144.png">
<meta name="msapplication-TextColor" content="#99CB73">
```

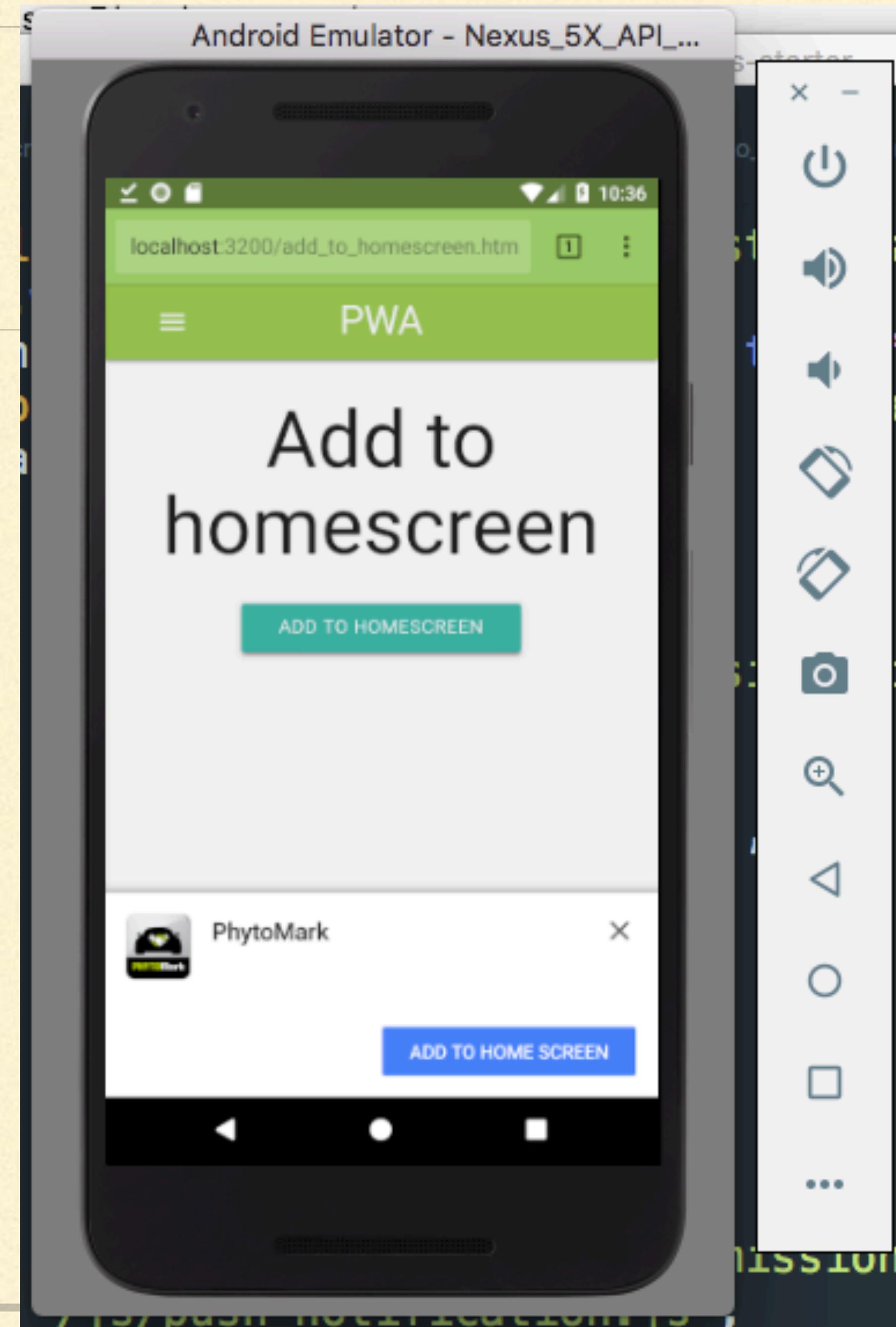
index.html or any html

# Minimum Benchmark “based on time and number of visits”

<https://developers.google.com/web/fundamentals/app-install-banners/>

# JUST IN CASE

- <https://barcamp.surge.sh>
- <https://barcamp1.surge.sh>
- <https://barcamp2.surge.sh>
- <https://barcamp3.surge.sh>

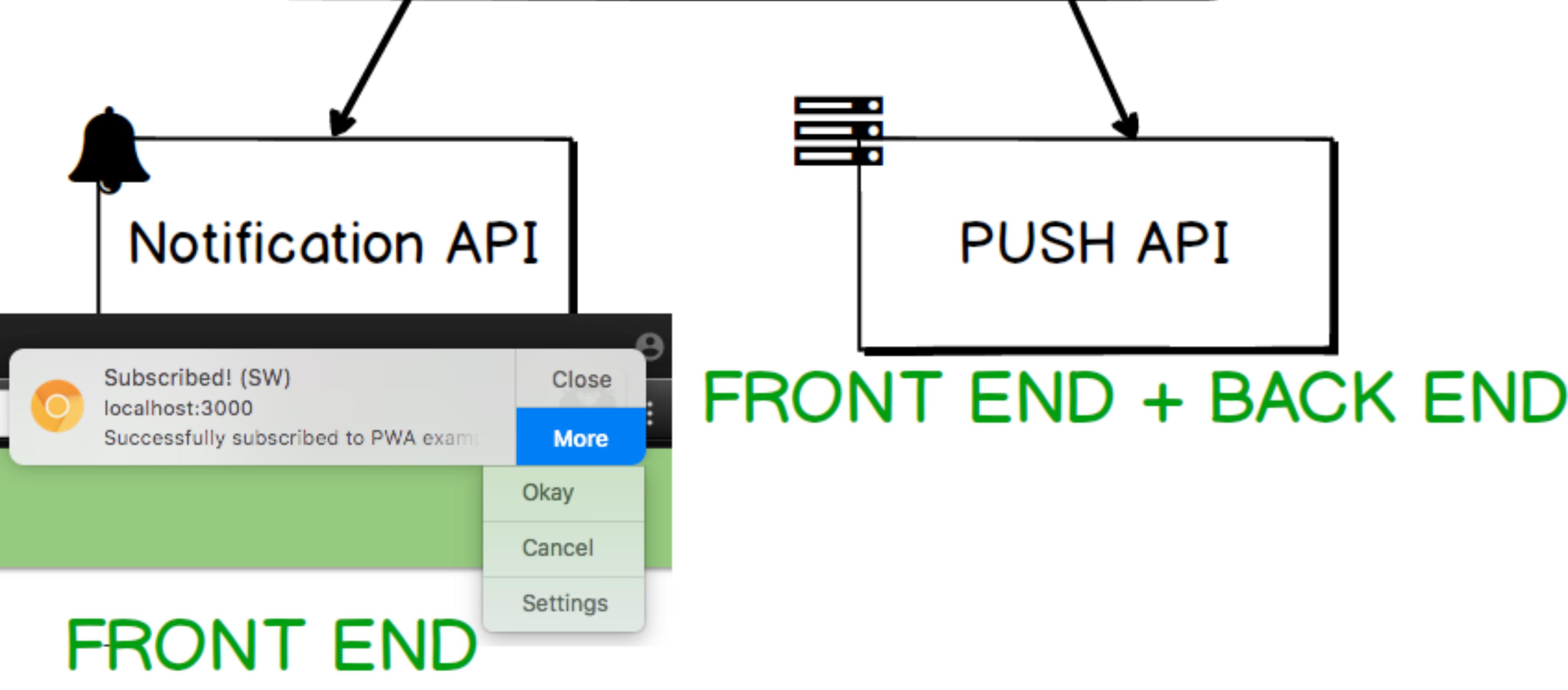


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**DEMO**  
**ADD TO**  
**HOMESCREEN**

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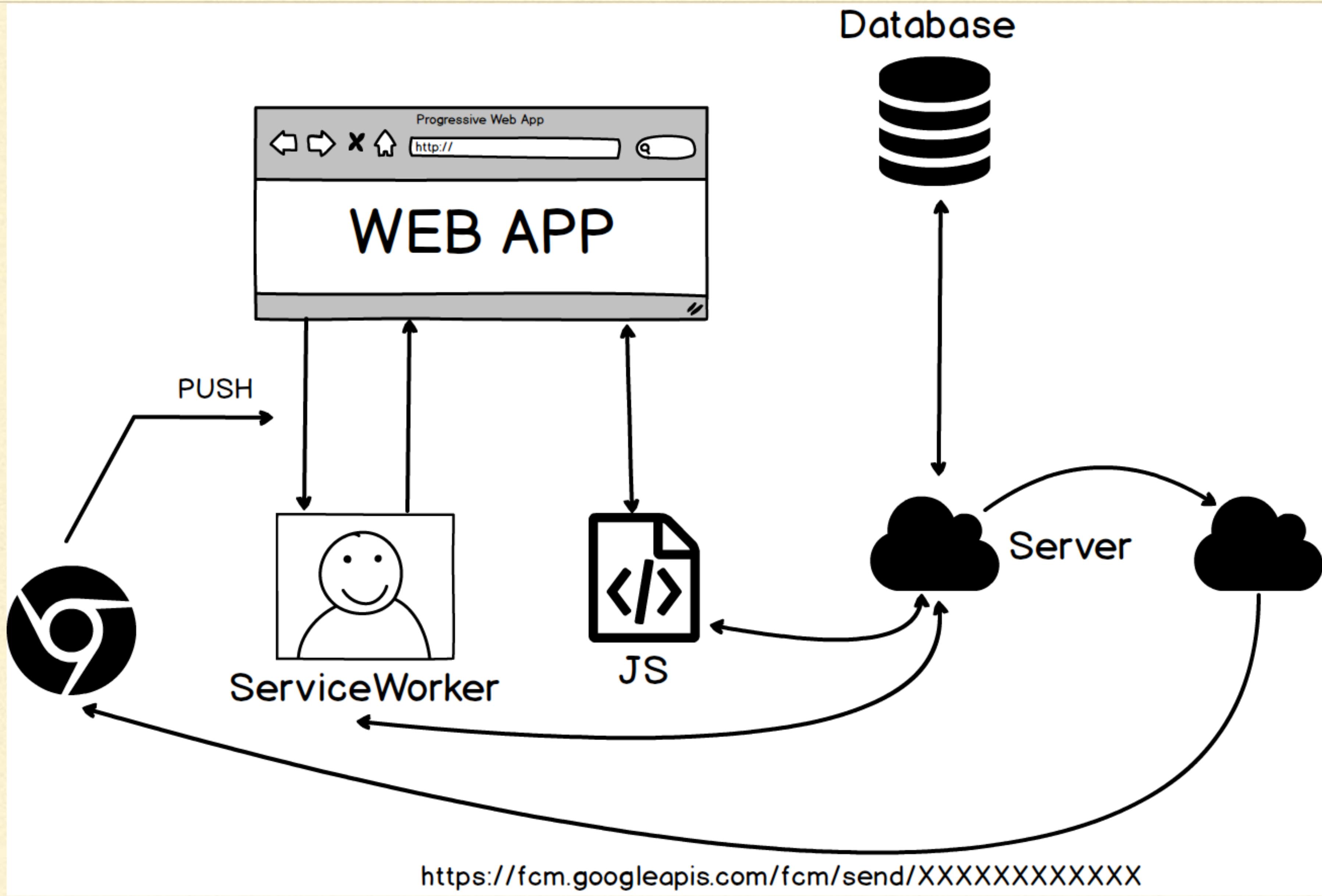
# PUSH NOTIFICATION



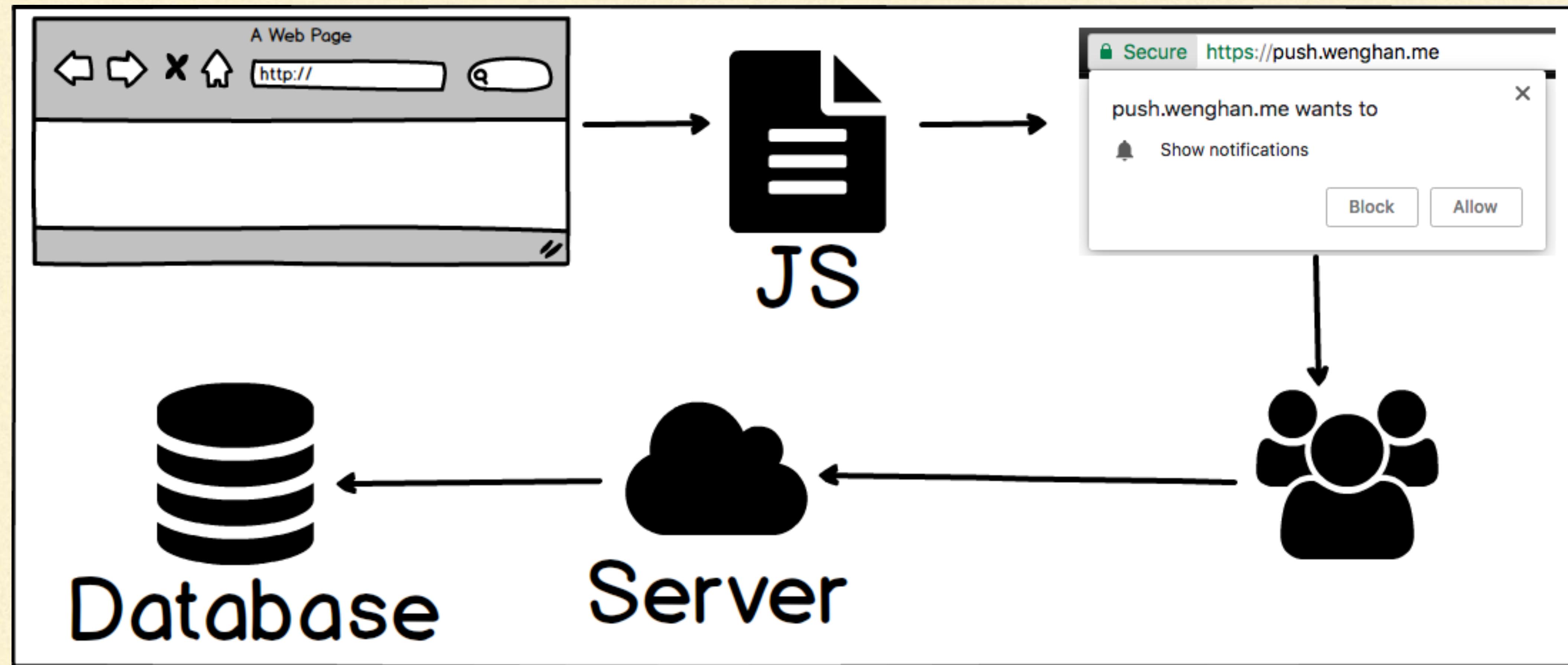
# Safari Push Notifications

Use the Apple Push Notifications Service to send notifications to your website users, right on their Mac desktop — even when Safari isn't running. Safari Push Notifications work just like push notifications for apps. They display your website icon and notification text, which users can click to go right to your website.





Push notification

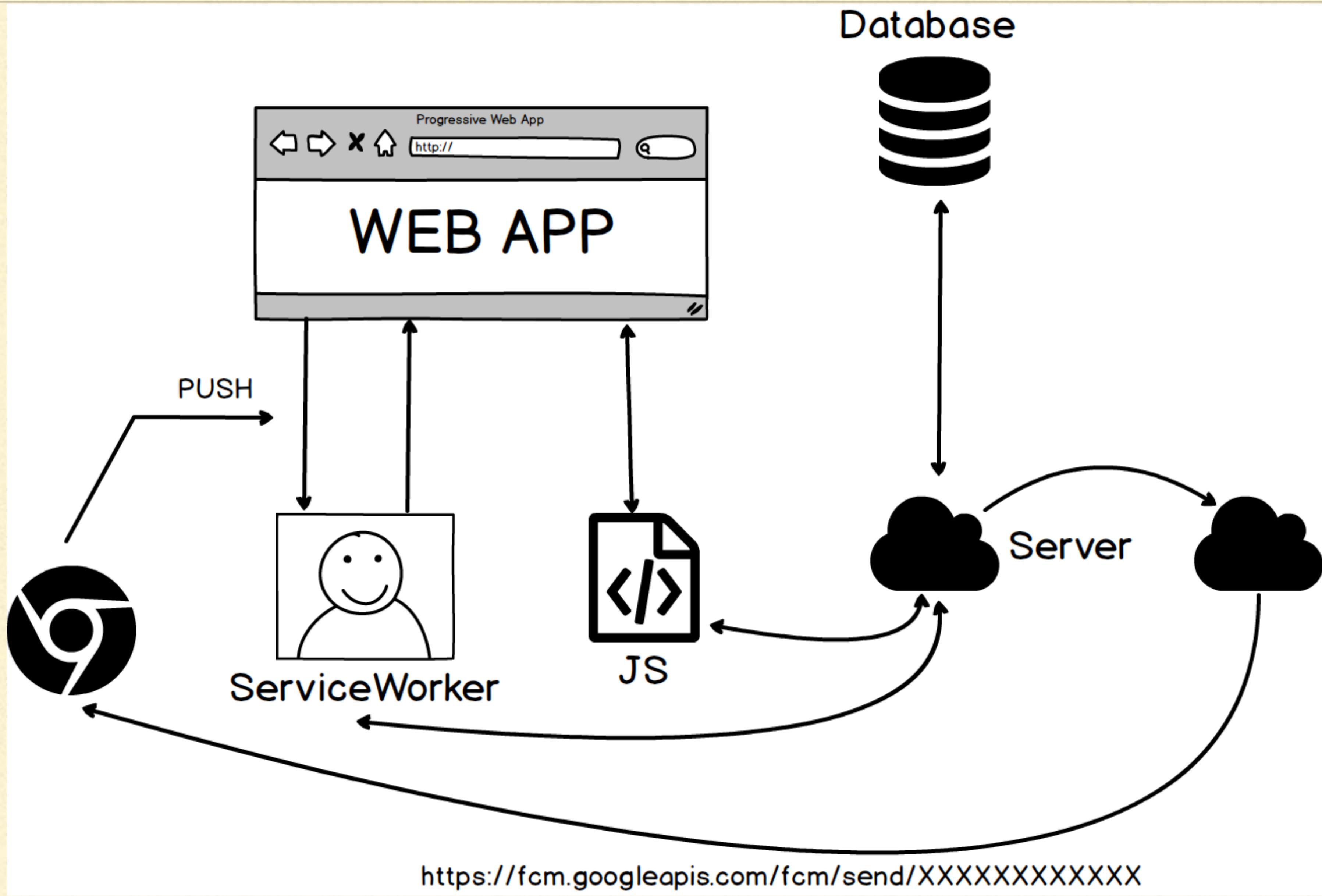


User have to accept to make Push Notification works.

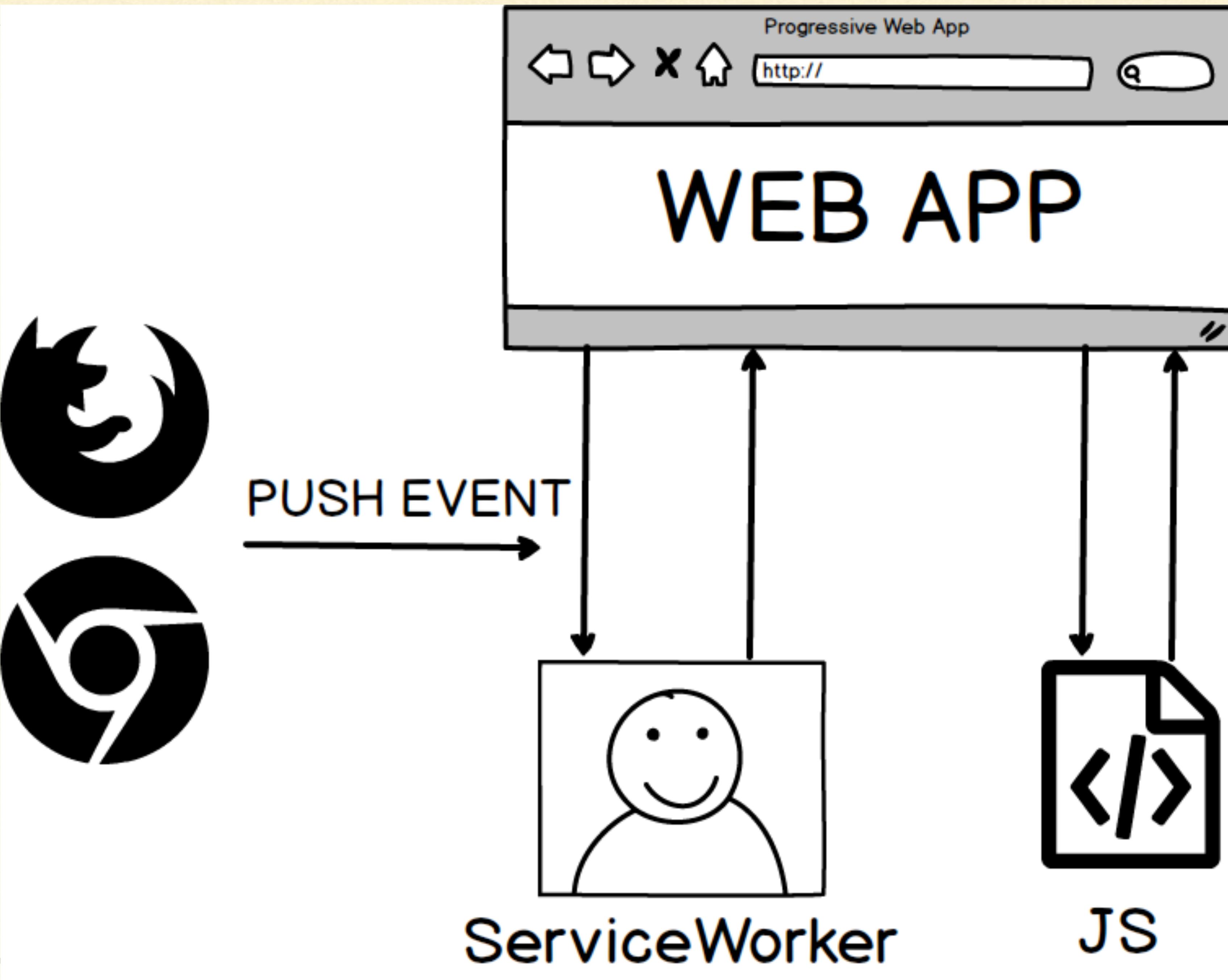
```
{  
  subscription: {  
    endpoint: "https://updates.push.services.mozilla.com/wpush/v2/XXX"  
    keys: {  
      auth: "XXXXXXX",  
      p256dh: "XXXXXXX"  
    }  
  }  
}
```

## SEND TO BACKEND

VAPID KEY



Push notification



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# DEMO PUSH NOTIFICATION

<https://barcamp.surge.sh>

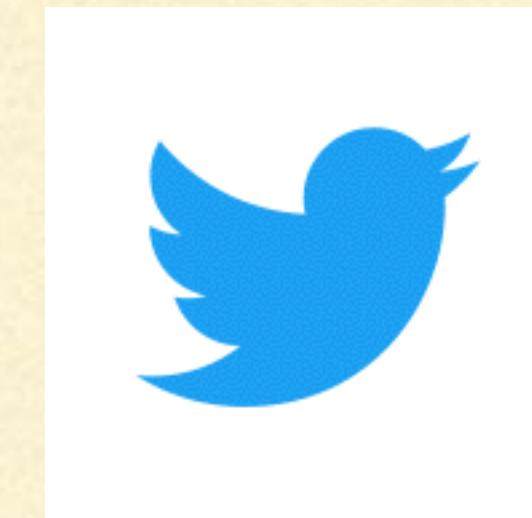
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**DEMO**  
**OTHER COOL**  
**STUFF**

<https://barcamp.surge.sh>

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AliExpress™

<https://www.pwastats.com>

