





**ESSIVE WI
WHAT
AT NOT
IO
ERE
OW**

PROGRESSIVE WEB APPS

WHAT

WHAT NOT

WHO

WHERE

HOW



tara z. manicsic

- developer advocate for Progress
- Google developer expert
- founder & director of Cincy WWC
- founder & director of Cincy NodeSchool
- human mama of #toshmagosh

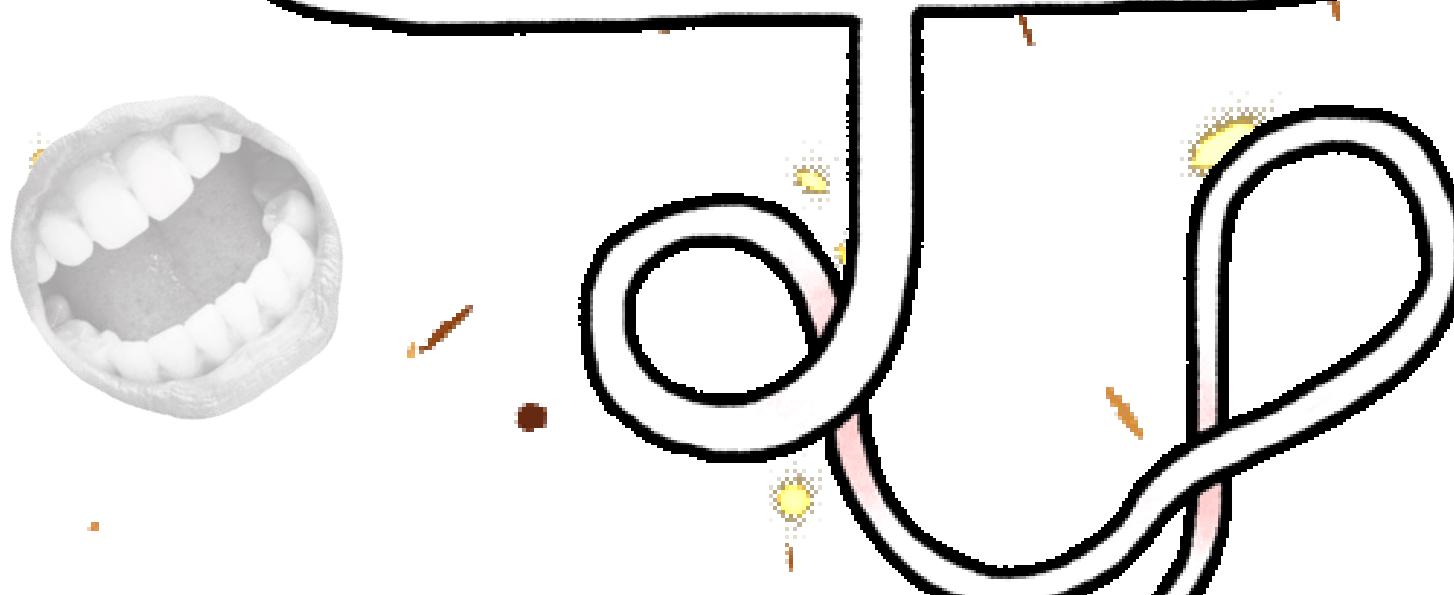
@tzmanics



@TZMANICS

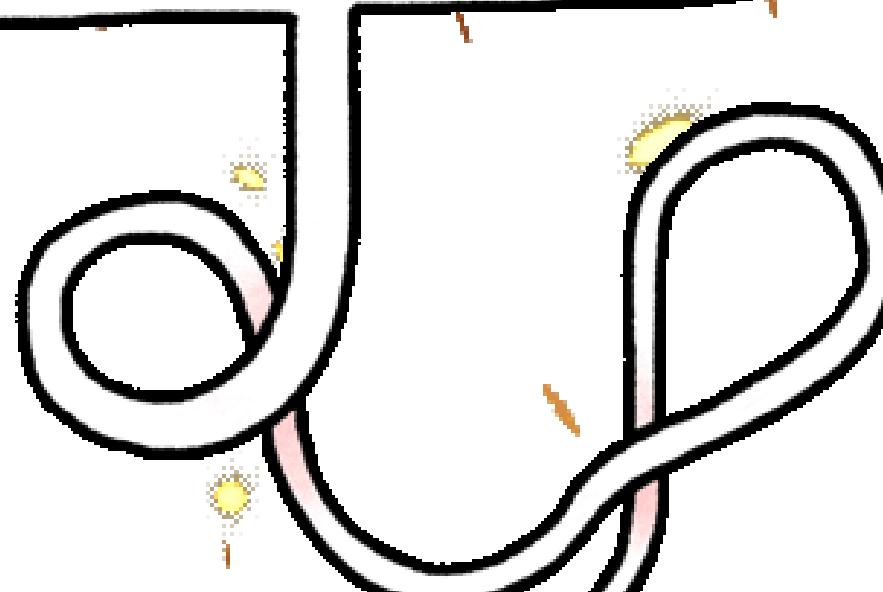


POETRY SLAM CHALLENGE



my name is Tara & I'm here to say
to build the modern web this is the way
manifests & service workers are bae
& will help you build a ...

PWA



A group of meerkats are gathered around a tall, thin vertical object, possibly a stick or a piece of wood, which they are all looking up at. The meerkats are standing on a patch of dry, brownish ground with some sparse green grass. The background is a dense, out-of-focus green foliage.

WHAT?

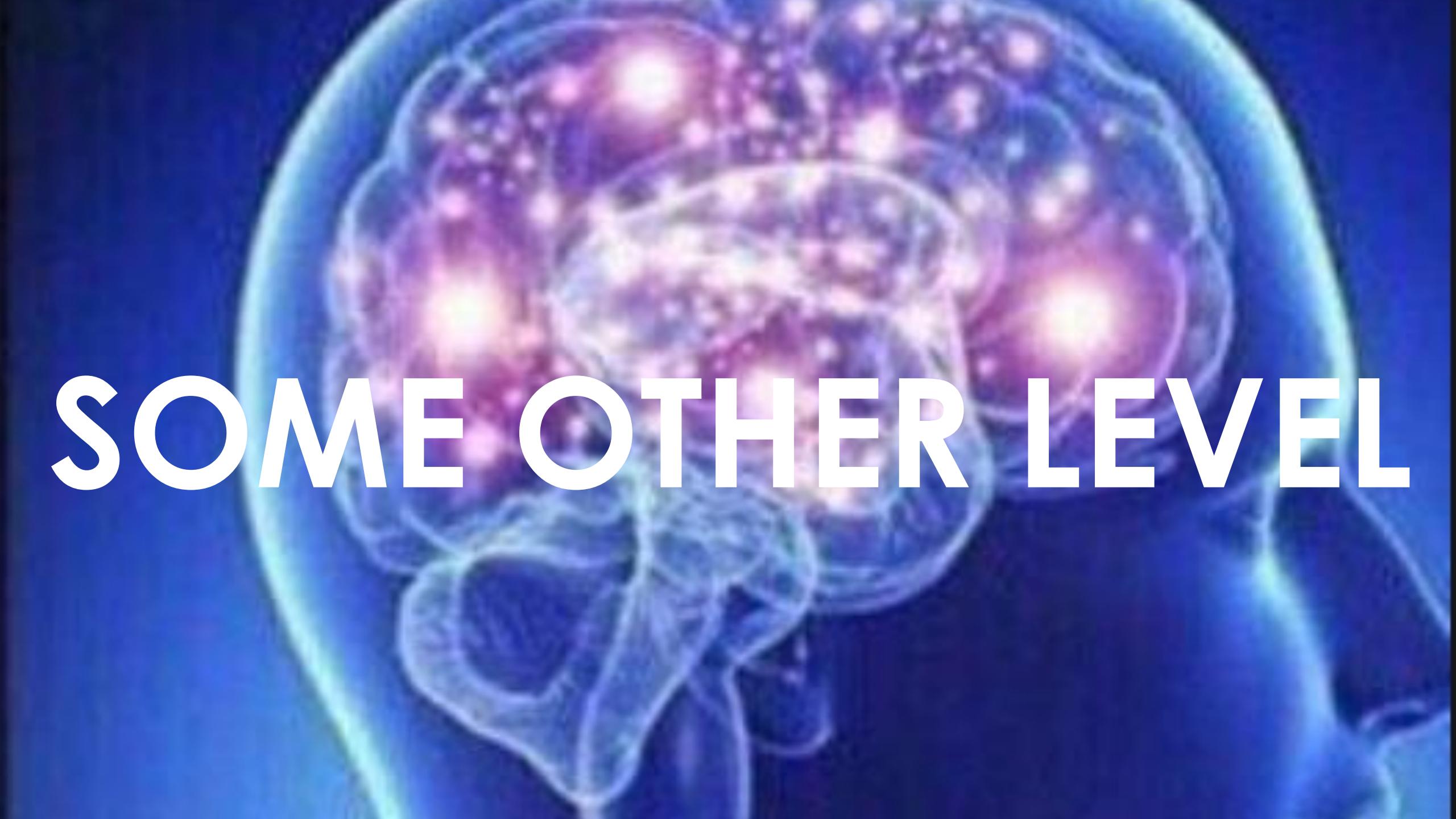
HIGH LEVEL



Strategies to make web apps
more engaging, more reliable and
more fast

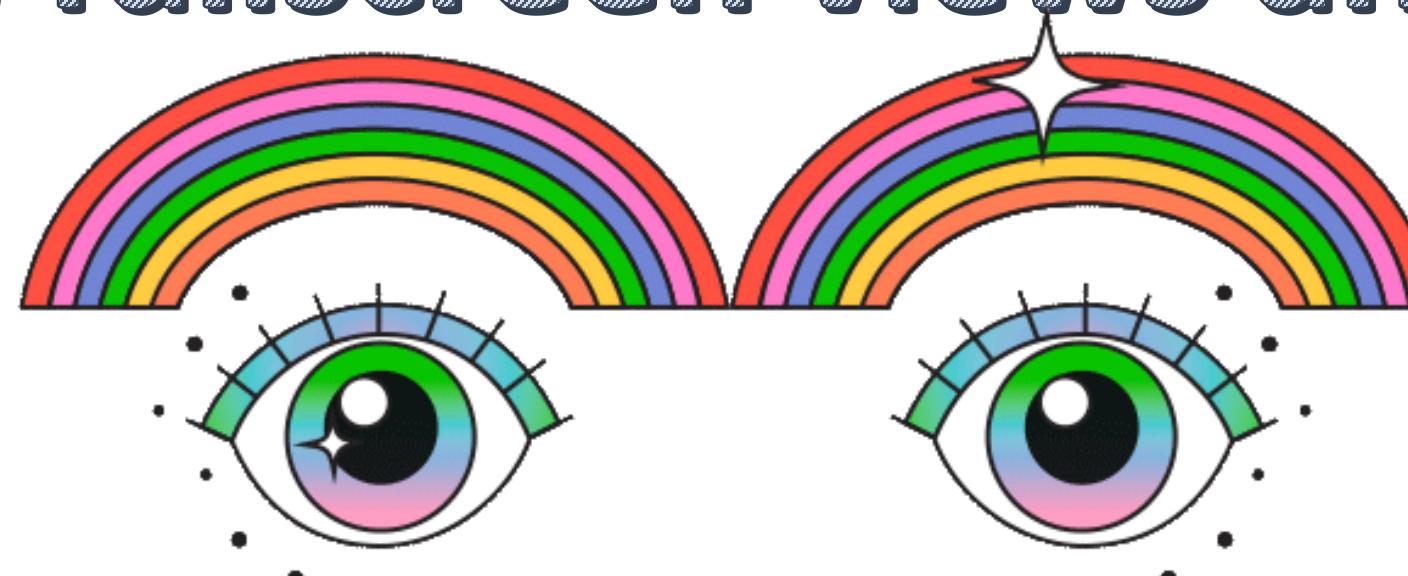


Using modern web technologies
like push and cache APIs.

A cross-section of a brain, likely a coronal slice, showing internal structures. The central region is brightly lit with a vibrant purple and yellow hue, suggesting activity or a specific region of interest. The surrounding tissue is in shades of blue and white. The overall image has a soft, glowing quality.

SOME OTHER LEVEL

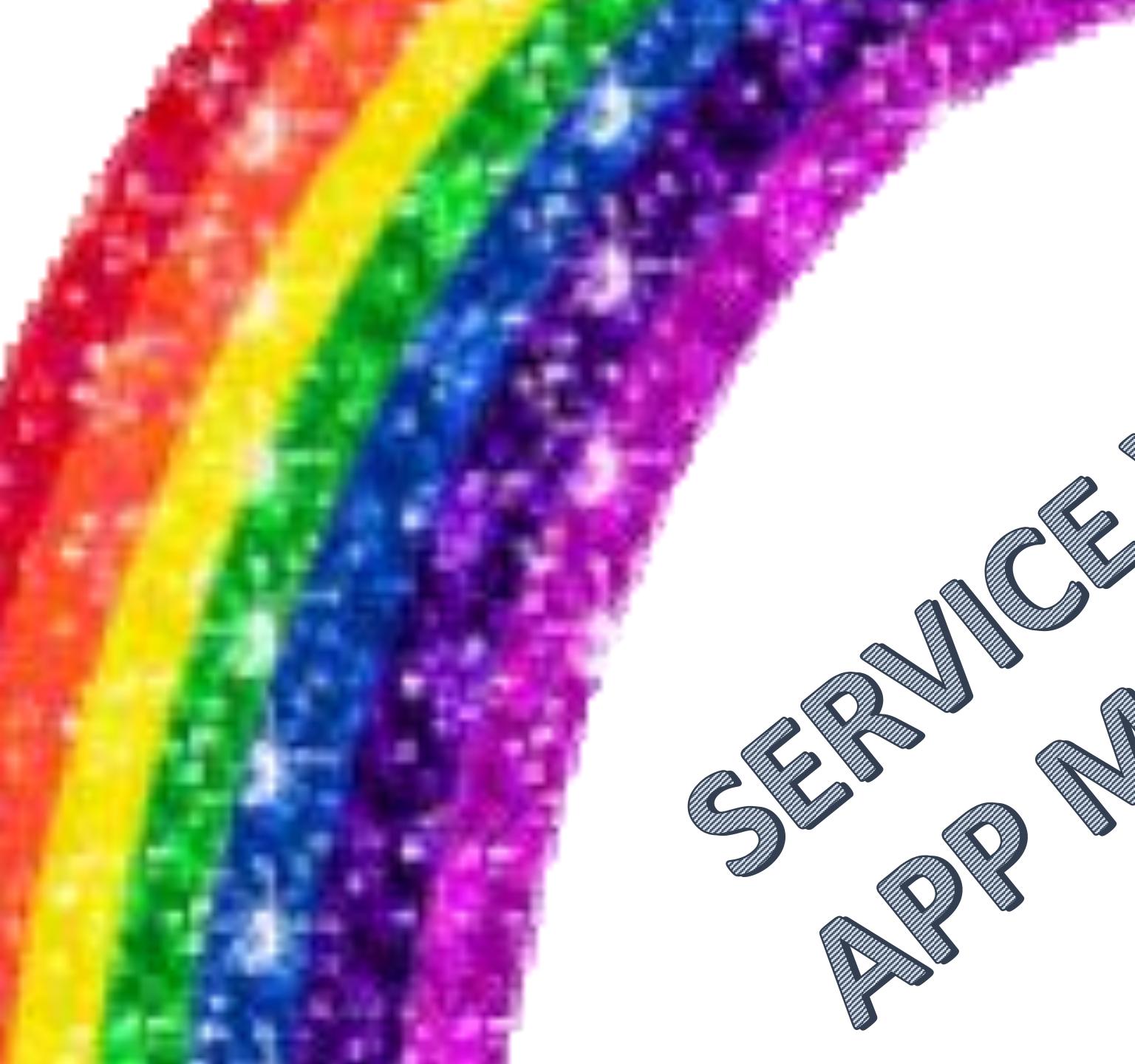
You add JavaScript and json files to your project to add capabilities like push notifications, offline caching, fullscreen views and more.



THE DAI BENDU ENTERED
THE THO YOR, FOLLOWING
THAT PROPHECY --



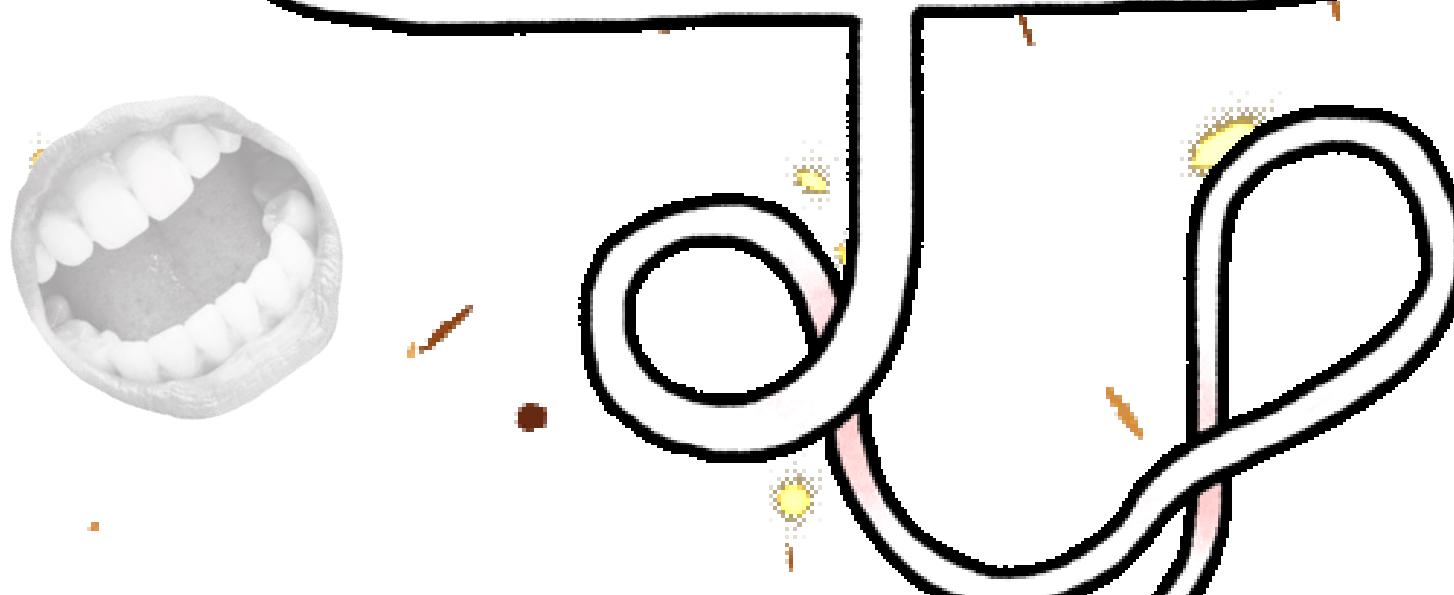
DAI BENDU LEVEL



APP MANIFEST

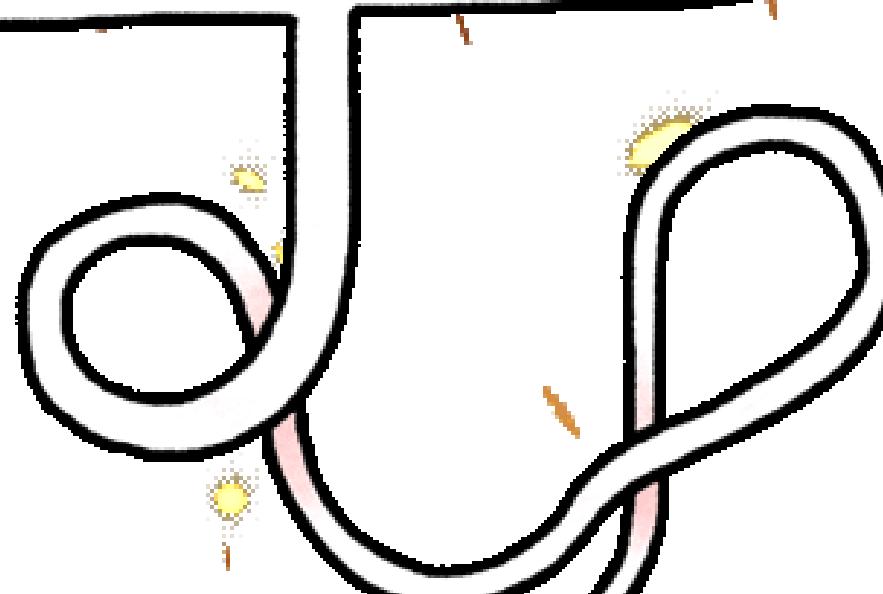
SERVICE WORKERS

POETRY SLAM CHALLENGE



when your network is being a shirker
thank your stars for this lil lurker
caching and pushing data, fer sure
make load times fast with a service...

Worker



Service Worker API



Languages

Edit



Jump to:

[Service worker concepts and usage](#)

[Other use case ideas](#)

[Interfaces](#)

[Specifications](#)

[Browser compatibility](#)

[See also](#)

[Web technology for developers](#) >

[Web APIs](#) >

Service Worker API

Related Topics

[Service Worker API](#)

▼ [Service Worker guides](#)

[Using Service Workers](#)

▼ [Interfaces](#)

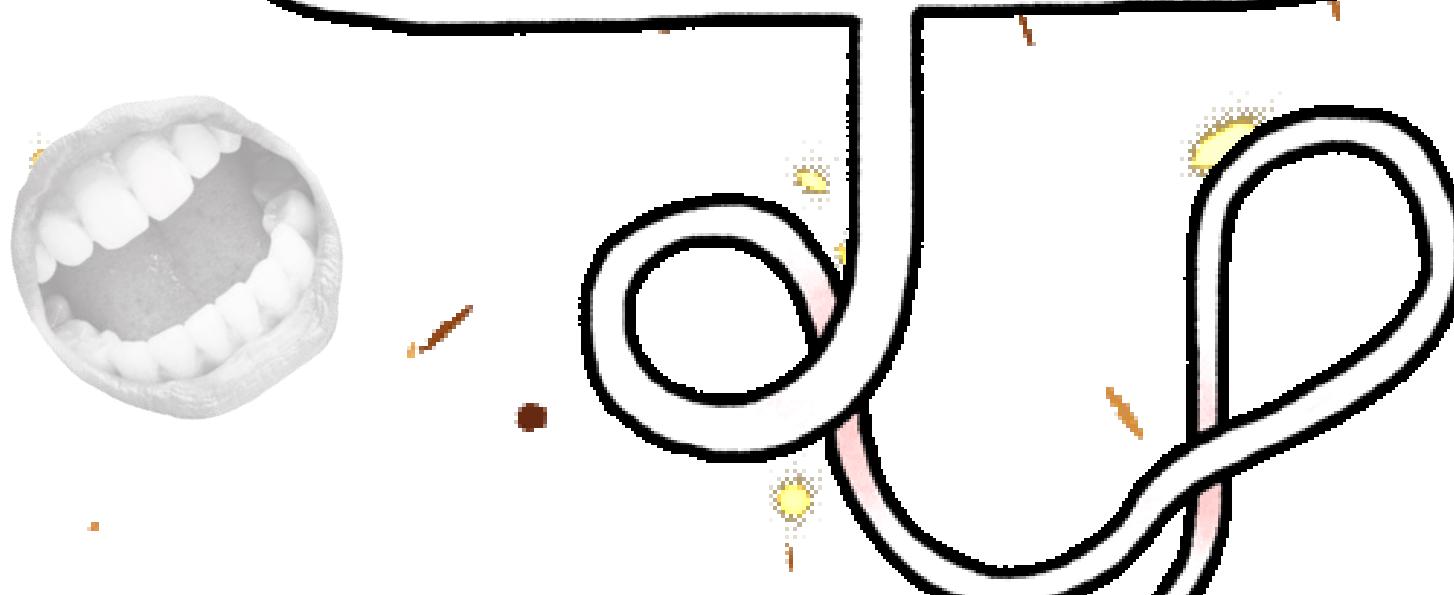
Service workers essentially act as proxy servers that sit between web applications, and the browser and the network (when available). They are intended to (amongst other things) enable the creation of effective offline experiences, intercepting network requests, and taking appropriate action based on whether the network is available, and updated assets reside on the server. They will also allow access to push notifications and background sync APIs.

@TZMANICS

serviceworker.js

```
if ('serviceWorker' in navigator && 'PushManager' in window) {  
    console.log('Service Worker and Push is supported');  
  
    navigator.serviceWorker.register('sw.js')  
        .then(function(swReg) {  
            console.log('Service Worker is registered', swReg);  
  
            swRegistration = swReg;  
        })  
        .catch(function(error) {  
            console.error('Service Worker Error', error);  
        });  
} else {  
    console.warn('Push messaging is not supported');  
    pushButton.textContent = 'Push Not Supported';  
}
```

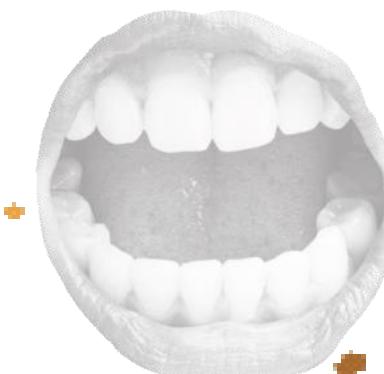
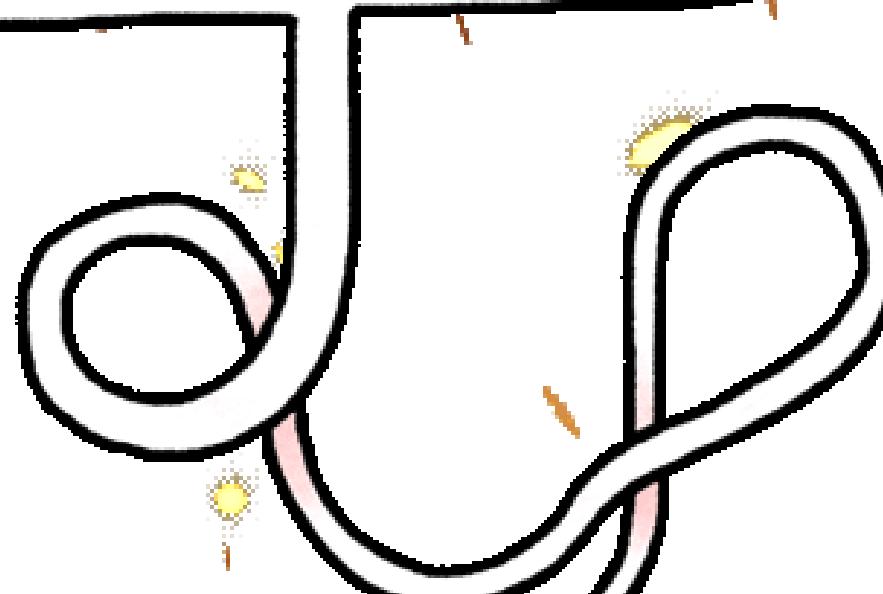
POETRY SLAM CHALLENGE



make your web app look like the rest
add to the homescreen on a user's behest
fullscreen views if you like that best
all things you can do with an app...



manifest



Web App Manifest

 Languages  Edit

Jump to: [Deploying a manifest](#) [Example manifest](#) [Members](#) [Splash screens](#)

[Mime type](#) [Specification](#) [Browser compatibility](#)

The web app manifest provides information about an application (such as name, author, icon, and description) in a JSON text file. The purpose of the manifest is to install web applications to the homescreen of a device, providing users with quicker access and a richer experience.

Web app manifests are part of a collection of web technologies called [progressive web apps](#), which are web applications that can be installed to the homescreen of a device without needing the user to go through an app store, along with other capabilities such as being available offline and receiving push notifications.

manifest.json

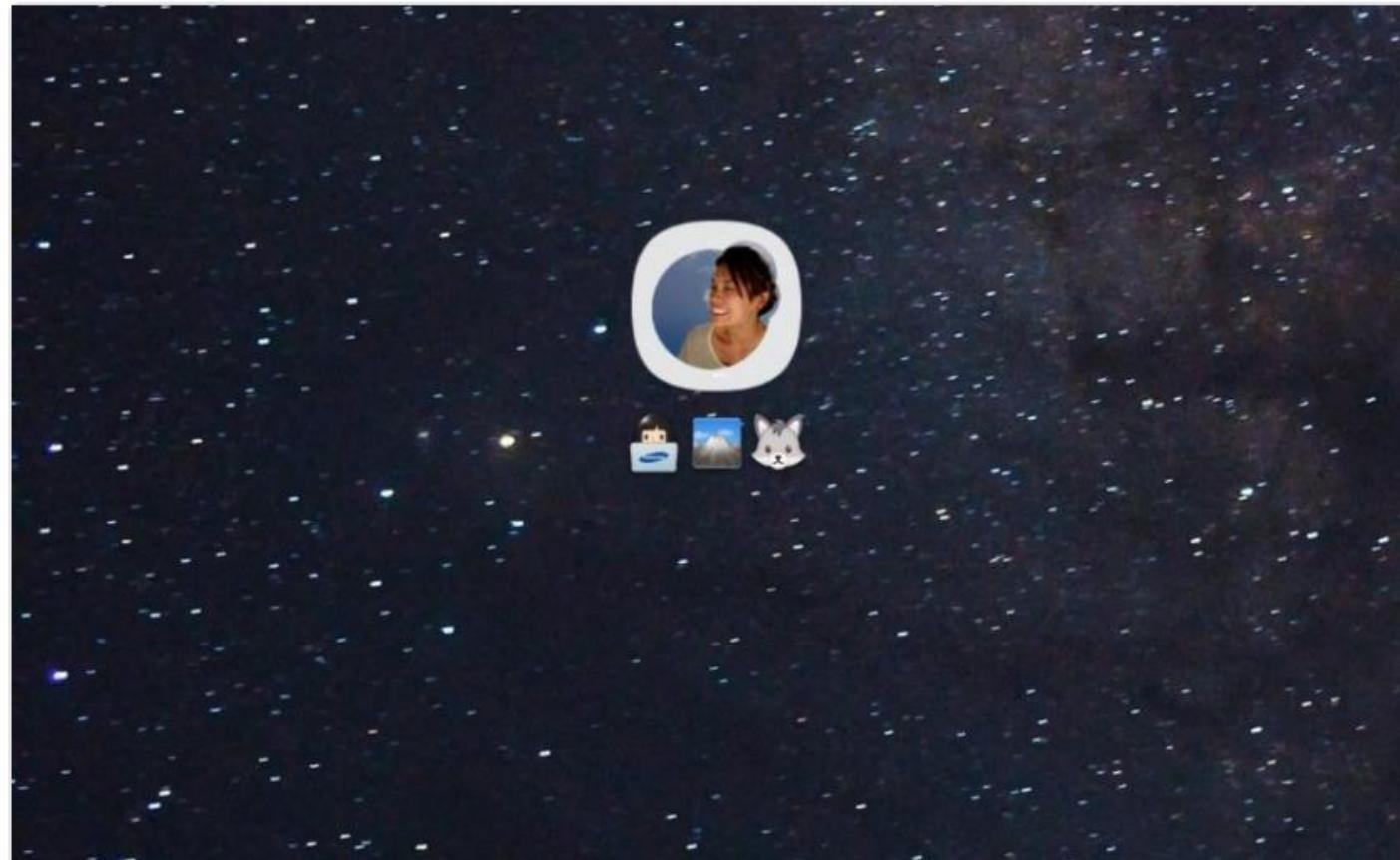
```
{  
  "name": "pwa-ftw",  
  "short_name": "PWA-FTW",  
  "icons": [  
    {  
      "src": "/static/img/icons/android-chrome-192x192.png",  
      "sizes": "192x192",  
      "type": "image/png"  
    },  
    {  
      "src": "/static/img/icons/android-chrome-512x512.png",  
      "sizes": "512x512",  
      "type": "image/png"  
    }  
  "start_url": "/index.html",  
  "display": "standalone",  
  "background_color": "#000000",  
  "theme_color": "#4DBA87"  
}
```



😄 Tara Z. Manicsic 🐾
@Tzmanics



I am always strongly advocating for emoji use in your #pwa app manifest. Come on, who doesn't want to 🖤 that adorable #toshmagosh emoji?!?



@TZMANICS



PROGRESSIVE



RESPONSIVE



CONNECTIVITY INDEPENDENT

APP-LIKE





#DumbTo

FRESH



SAFE



DISCOVERABLE

RE-ENGAGING



INSTALABLE



DOWNLOADING PIZZA...



LINKABLE

A medium shot of a man with short brown hair and a mustache, wearing a white button-down shirt. He has a shocked or surprised expression, with wide eyes and a slightly open mouth. Behind him, a woman with dark hair tied back is visible, wearing a pink sleeveless top. The background is a plain, light-colored wall.

WHAT NOT?

**NOT REPLACING
NATIVE MOBILE APPS**

NOT

JUST MOBILE

NOT

FOR EVERONE

NOT

ALL | | **NOTHING**

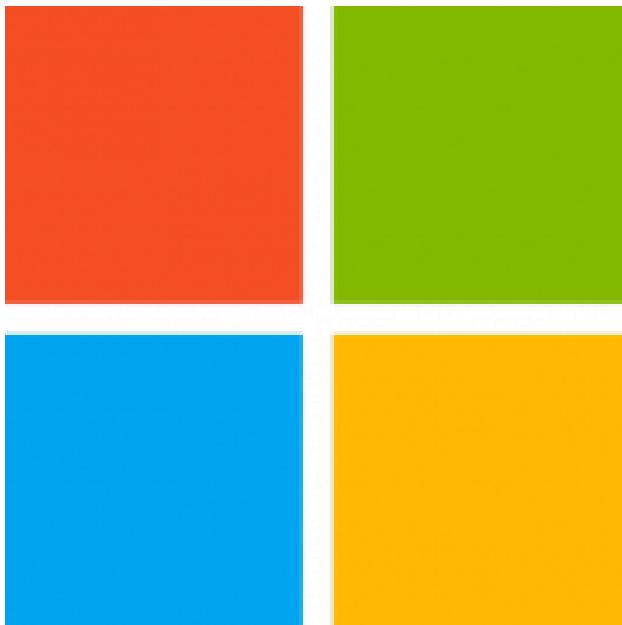
NOT

A REASON TO

BURN IT TO THE

GROUND





A vintage-style photograph of a woman with blonde hair, wearing a dark bikini top and bottoms. She is standing outdoors, smiling and holding her right hand up to shield her eyes from the sun. The background is filled with dense, out-of-focus foliage.

WHERE?



iOS

PROGRESSIVE WEB APPS

WHAT

WHAT NOT

WHO

WHERE

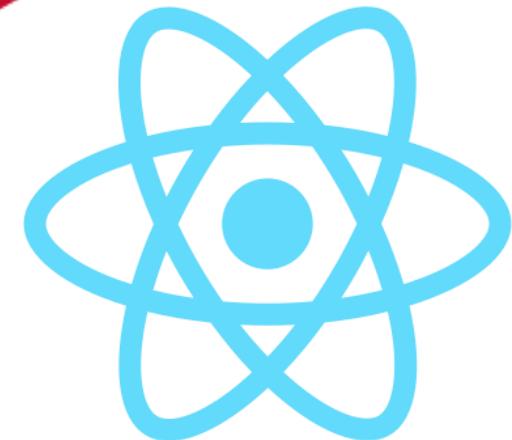
HOW

WHAT NOT WHERE



PROGRESSIVE WEB APPS

WHAT
WHAT NOT
WHO
WHERE
HOW



The image shows the Kendo UI homepage. At the top, there are three red buttons labeled "Browse". Below them is a search input field with the placeholder "Type the name of a European country:" and a dropdown menu showing suggestions starting with "Albania". To the right, there is a date picker showing "Selected value is: 03/10/2000" and a calendar for May 2020. The calendar includes a "TODAY" button and navigation arrows for previous and next months.

Browse

Browse

Browse

Type the name of a European country:

A

Albania

Andorra

Armenia

Austria

Azerbaijan

Belarus

Belgium

Selected value is: 03/10/2000

Select a date:

3/10/2000

Dec 2020

Su Mo Tu We Th Fr Sa

1 2

Feb

Mar

Apr

May 10 11 12 13 14 15 16

Jun 17 18 19 20 21 22 23

Jul 24 25 26 27 28 29 30

Aug 31

Sep

Oct June 2020

↑ to increment and ↓ to

Kendo UI

Build Better Web Apps Faster

A complete JavaScript UI component library that allows you to quickly build eye-catching, high-quality, high-performance responsive web apps using your framework of choice.

Get a Free Trial ▾

Check out our new React implementations! Learn more about Kendo UI support for:

jQuery Angular React Vue

GET IN TOUCH





LIVE
CODING



```
npm i @angular/cli -g
```

```
ng new <project-name> --service-worker
```

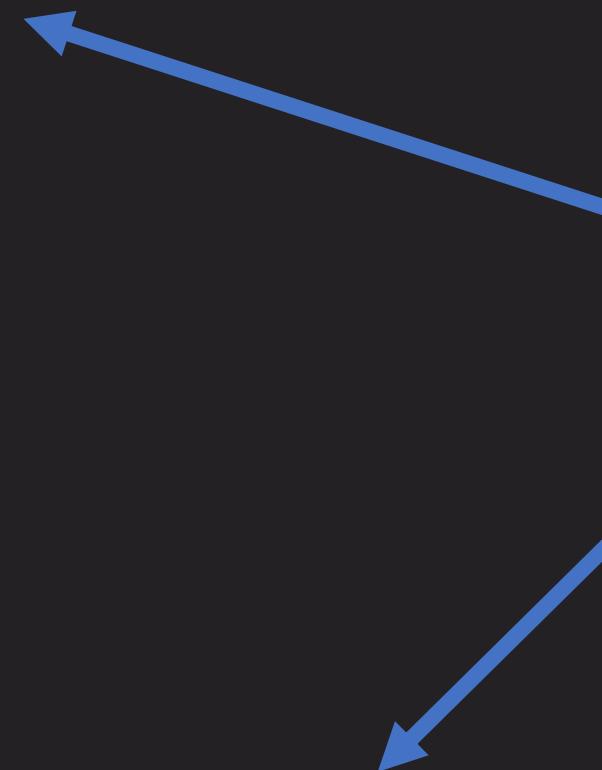
```
src/app/app.module.ts
```

```
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';

import { ServiceWorkerModule } from '@angular/service-worker';
import { AppComponent } from './app.component';

import { environment } from '../environments/environment';

@NgModule({
  declarations: [
    AppComponent
  ],
  imports: [
    BrowserModule,
    environment.production ? ServiceWorkerModule.register('/ngsw-worker.js') : []
  ],
})
```



src/ngsw-config.json

```
{  
  "index": "/index.html",  
  "assetGroups": [  
    {"name": "app",  
     "installMode": "prefetch",  
     "resources": {  
       "files": [  
         "/favicon.ico",  
         "/index.html"  
       ],  
       "versionedFiles": [  
         "/*.bundle.css",  
         "/*.bundle.js",  
         "/*.chunk.js"  
       ]  
     }  
   }, {  
     "name": "assets",  
     "installMode": "lazy",  
     "updateMode": "prefetch",  
     "files": [  
       "/*.  
     ]  
   }  
 }  
 }  
 }
```

src/assets/manifest.json



```
{  
  "name": "AOT Angular PWA",  
  "short_name": ".angular",  
  "icons": [  
    {  
      "src": "./icons/android-chrome-192x192.png",  
      "sizes": "192x192",  
      "type": "image/png"  
    },  
    {  
      "src": "./icons/android-chrome-512x512.png",  
      "sizes": "512x512",  
      "type": "image/png"  
    }  
  "start_url": "/",  
  "display": "standalone",  
  "background_color": "#DEDEDE",  
  "theme_color": "#DEDEDE"  
}
```

KendoUI.com



Kendo UI®

Build Better Web Apps Faster

A complete JavaScript UI component library that allows you to quickly build eye-catching, high-quality, high-performance responsive web apps using your framework of choice.

[Get a Free Trial ▾](#)

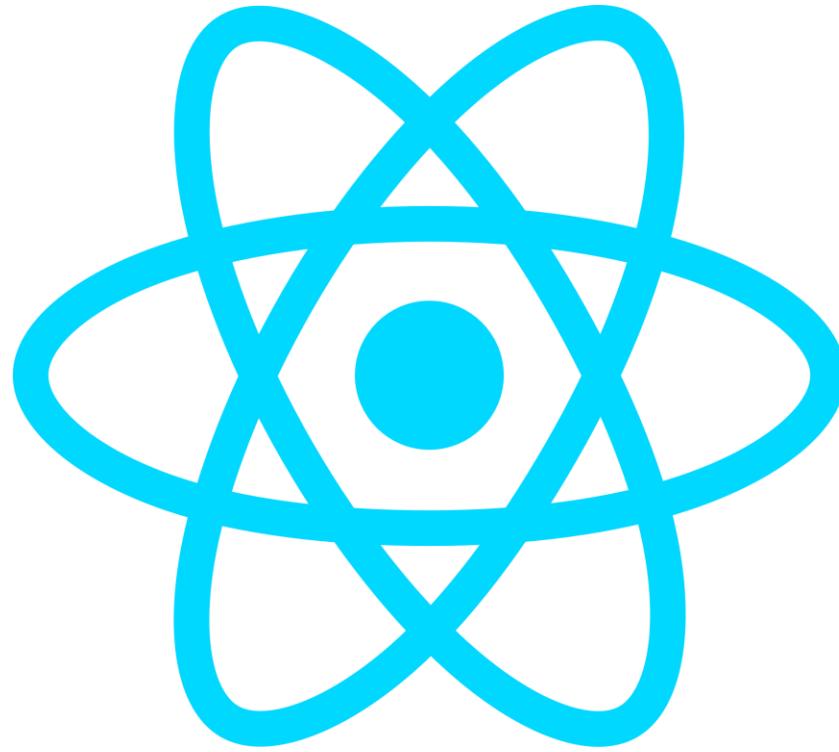
Yes, we support Angular 5! Learn more about Kendo UI support for:

jQuery

Angular

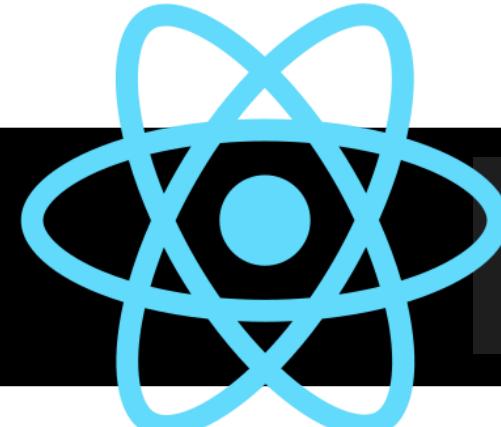
React

Vue



React





```
npm i create-react-app -g
```

```
create-react-app kendo-ui-for-reactjs
```

```
npm i @progress/kendo-charts-react-wrapper @progress/kendo-ui
```

```
npm i @progress/kendo-theme-default
```

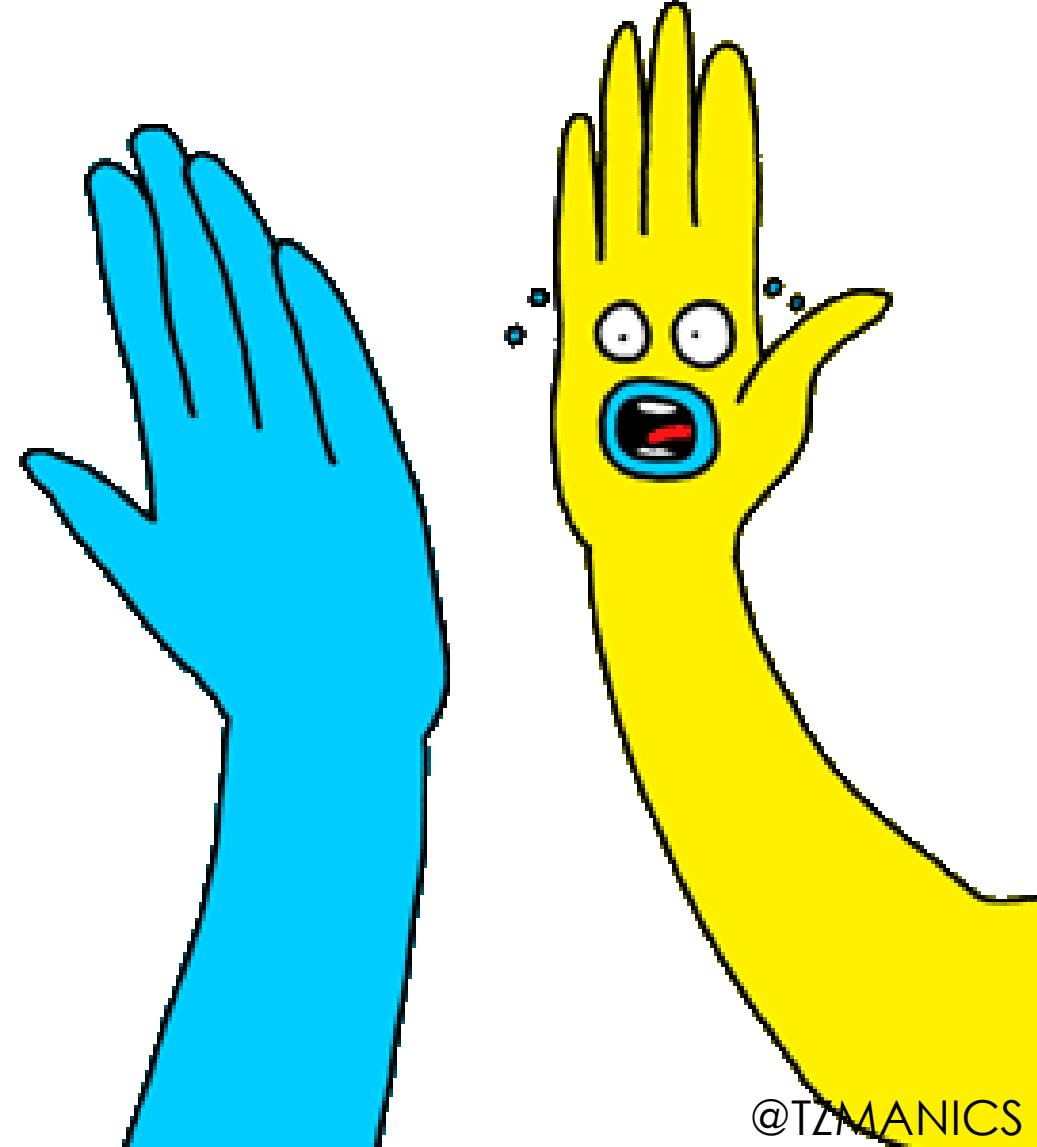
create-react-app PWA Files



```
my-app
├── README.md
├── node_modules
├── package.json
├── .gitignore
├── public
│   └── favicon.ico
│   └── index.html
│   └── manifest.json
└── src
    └── App.css
    └── App.js
    └── App.test.js
    └── index.css
    └── index.js
    └── logo.svg
    └── registerServiceWorker.js
```



Vue.js





```
npm i vue-cli -g
```

```
vue init pwa kendoui-vue
```

```
npm i @progress/kendo-ui
```

```
npm i @progress/kendo-datasource-vue-wrapper @progress/kendo-grid-vue-wrapper
```

VUE-cli PWA Files

img/icons

manifest.json

- `npm run build` : Production ready build.
 - JavaScript minified with [UglifyJS](#).
 - HTML minified with [html-minifier](#).
 - CSS across all components extracted into a single file and minified with [cssnano](#).
 - All static assets compiled with version hashes for efficient long-term caching, and a production `index.html` is auto-generated with proper URLs to these generated assets.
 - Use `npm run build --report` to build with bundle size analytics.
 - Generates a Service Worker for offline caching your static assets using [sw-precache-webpack-plugin](#)

static/

build/

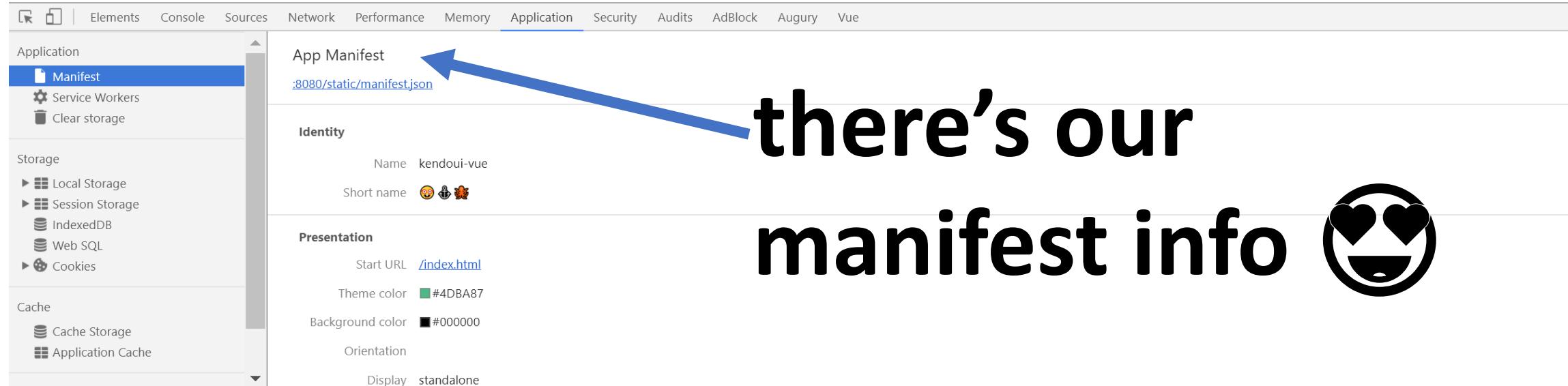
build.js
check-versions.js
dev-client.js
dev-server.js
load-minified.js
service-worker-dev.js
service-worker-prod.js
utils.js
vue-loader.conf.js
webpack.base.conf.js
webpack.dev.conf.js
webpack.prod.conf.js

Drag a column header and drop it here to group by that column

it looks like this:

Contact Name	Contact Title	Company Name
Maria Anders	Sales Representative	Ana Trujillo Comercios y Servicios
Ana Trujillo	Owner	
Antonio Moreno	Owner	Antonio Moreno Taquería
Thomas Hardy	Sales Representative	Around the Horn
Christina Berglund	Order Administrator	Berglunds snabbköp
Hanna Moos	Sales Representative	Blauer See Delikatessen
Frédérique Citeaux	Marketing Manager	Blondel père et fils
Martín Sommer	Owner	Bólido Comidas preparadas
Laurence Lebihan	Owner	Bon app'
Elizabeth Lincoln	Accounting Manager	Bottom-Dollar Markets
Victoria Ashworth	Sales Representative	B's Beverages
Patricia Simpson	Sales Agent	Cactus Comidas para llevar

there's our manifest info



The screenshot shows the Chrome DevTools Application tab open. On the left, there's a sidebar with sections for Application (Manifest, Service Workers, Clear storage), Storage (Local Storage, Session Storage, IndexedDB, Web SQL, Cookies), and Cache (Cache Storage, Application Cache). The main area is titled "App Manifest" and shows the file path ".8080/static/manifest.json". Below this, under "Identity", it lists "Name: kendoui-vue" and "Short name: 🎨". Under "Presentation", it shows "Start URL: /index.html", "Theme color: #4DBA87", "Background color: #000000", "Orientation: standalone", and "Display: standalone". A blue arrow points from the text "there's our manifest info" towards the "Manifest" section in the DevTools.

PWAs are 🔥🔥🔥

PWA All The Things

10am in 235 w/ @tzmanics

Wicked Fast ⚡ Mobile Web

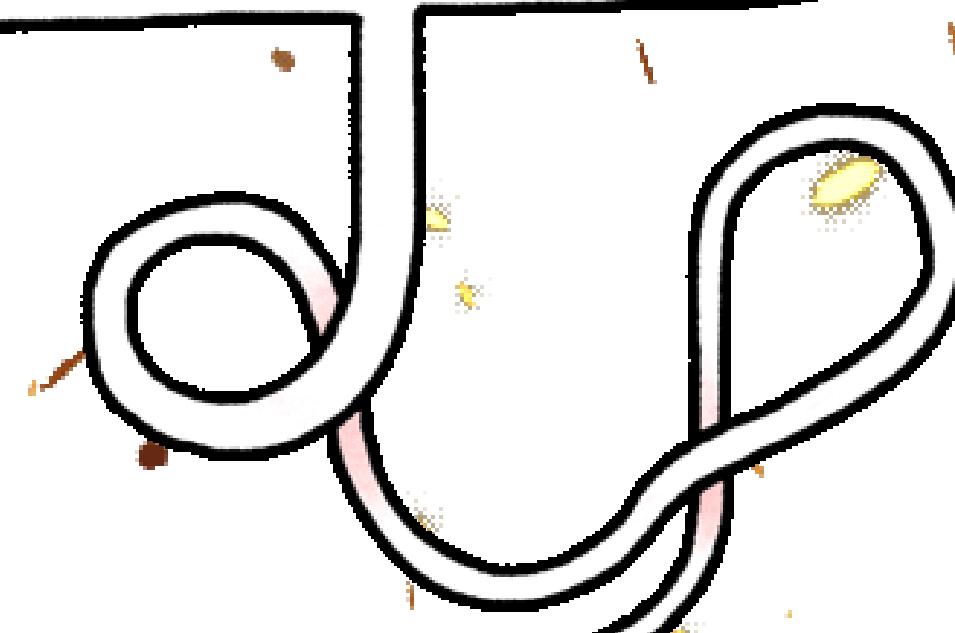
12pm in Small Auditorium w/ @abraham & @pblatteier

Intro to Progressive Web Apps

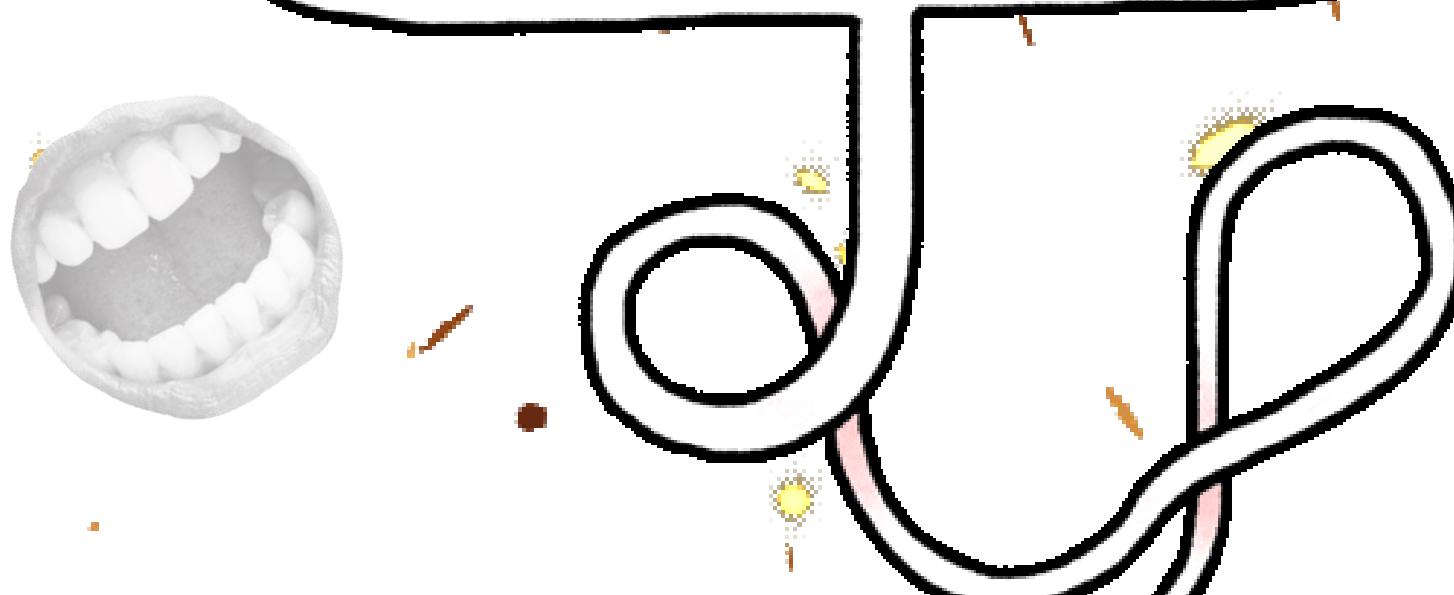
3pm in 235 w/ @kpaul86

THANK YOU!!!
**Code & Slides will be
tweeted from @tzmanics**

♥ come & talk to me ♥
♥ I really wanna know you ♥



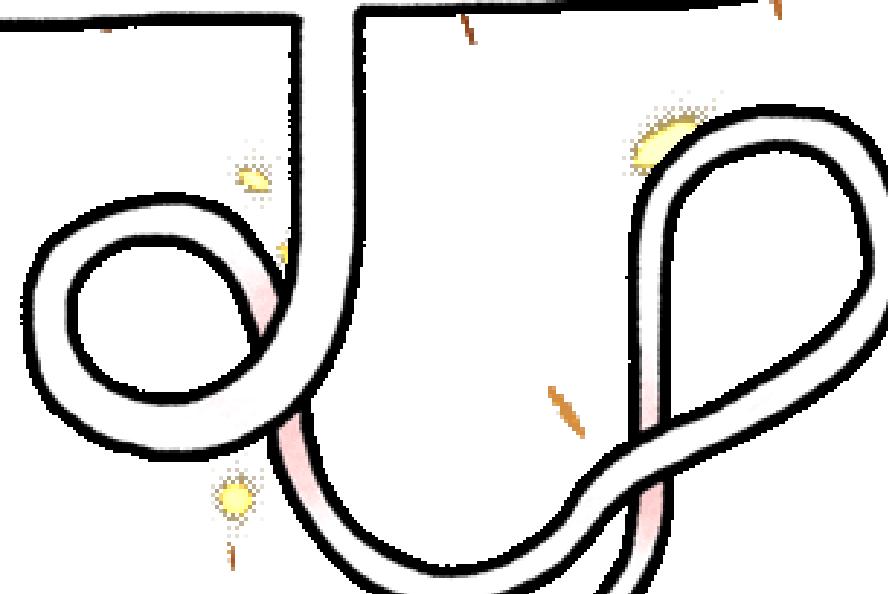
POETRY SLAM CHALLENGE



this cold really put me to the test
but being with you all in St. Paul is the best
such great speakers to see, I can't rest
thanks for having me here for this awesome...



DevFest



THANK YOU!!!
**Code & Slides will be
tweeted from @tzmanics**

♥ come & talk to me ♥
♥ I really wanna know you ♥

