Emerging Web Technology and Trends (MPTC/152-117)

Learning Plan 2
PAT1
Standards and Specifications
PWA – Progressive Web App Project

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Competencies:

Investigate new and emerging web standards and specifications

Assessment Instructions:

You will demonstrate the skills gain in regard to the class selected topic:

- **PWA – Progressive Web App** The content of the project/s is up to you. This can be done on multiple pages.

Design standards learned throughout the program will apply to projects created for this assessment including SEO and Code Validation. The following valuators for HTML 5 and CSS 3

- HTML5: http://validator.w3.org/
- CSS3: http://jigsaw.w3.org/css-validator/

NOTE: *The criteria is directed at passing validation for 'current standards and specs' and I want to point out that there are several CSS3 techniques that are out there, they work, however they have not yet made it into the official specs! Since they haven't, those would NOT pass validation even if they are actually fully functional and correctly done! So, for example, -moz, -webkit, types of CSS3 will not pass validation because they are not yet part of the official specifications. It is OK to use them, just realize you will see them show up as validation errors. Those types of errors are okay to have shown up at this point.*

Some articles to read about this at:

- http://www.css3.info/the-big-css3-validation-debate/
- http://stackoverflow.com/questions/1889724/how-to-validate-vendor-prefixes-in-css-like-webkit-and-moz

Documentation:
The required documentation as outlined for each project and core ability criteria below will need to be on a web page. This page should contain links to the project page/s that you created to demonstrate the skills gained. Be sure to be clear as to which links go with which criteria! Organization of your documentation page is important. This will become part of your final Portfolio Showcase website for this class.

Submit the URL to the Documentation page to the Assessment Link on this page.

Scoring Guide: Grading Criteria

	Criteria
New and Emerging Web Project: **Touchscreen Design**	
You employ responsive design for desktop and mobile. **I did do two PWA's, but I am using the second one as my project.**	

Documentation: You provide documentation showing support of this criteria. This should include both screen captures ar
application. You provide justification for the choices made.

```
ead>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
  <meta http-equiv="X-UA-Compatible" content="ie=edge" />
```

This is the standard code to make it mobile-friendly.
The viewport varies with the device and will be smaller on a mobile phone than on a computer screen.

**You employ a service worker to precache the app resources (HTML, CSS, JavaScript, images) needed to run and
to improve performance.**

Documentation: You provide documentation showing support of this criteria. This should include both screen captures ar
application. You provide justification for the choices made.

```
self.addEventListener("install", installEvent => {
  installEvent.waitUntil(
    caches.open(staticDevCoffee).then(cache => {
      cache.addAll(assets)
    })
  )
})

self.addEventListener("fetch", fetchEvent => {
  fetchEvent.respondWith(
    caches.match(fetchEvent.request).then(res => {
      return res || fetch(fetchEvent.request);
    })
  );
});
```

We declare the name of our cache staticDevCoffee and the assets to store in the cache. And to perform that action, we ne
ourselves.

Self is the service worker itself, and it enables us to listen to life cycle events and do something in return.

The service worker has several life cycles, and one of them is the install event. It runs when a service worker is installed, a
the worker executes, and it's only called once per service worker.

When the install event is fired, we run the callback, which gives us access to the event object.

Caching something on the browser can take some time to finish because it's asynchronous.

So, to handle it, we need to use waitUntil(), which, as you might guess, waits for the action to finish.

Once the cache API is ready, we can run the open() method and create our cache by passing its name as an argument to
caches.open(staticDevCoffee).

Then it returns a promise, which helps us store our assets in the cache with cache.addAll(assets).

You employ a web app manifest and the before install prompt event to notify the user it's installable. **Documentation:** You provide documentation showing support of this criteria. This should include both screen captures ar application. You provide justification for the choices made.

ource Code | style.css | manifest.json | app.js | serviceWorker.js

```
{
    "name": "Dev'Coffee",
    "short_name": "DevCoffee",
    "start_url": "index.html",
    "display": "standalone",
    "background_color": "#fdfdfd",
    "theme_color": "#db4938",
    "orientation": "portrait-primary",
    "icons": [
      {
        "src": "./images/icons/icon-72x72.png",
        "type": "image/png",
        "sizes": "72x72"
      },
      {
        "src": "./images/icons/icon-96x96.png",
        "type": "image/png",
        "sizes": "96x96"
      },
      {
        "src": "./images/icons/icon-128x128.png",
        "type": "image/png",
        "sizes": "128x128"
      },
      {
        "src": "./images/icons/icon-144x144.png",
        "type": "image/png",
        "sizes": "144x144"
      },
      {
        "src": "./images/icons/icon-152x152.png",
        "type": "image/png",
        "sizes": "152x152"
      },
      {
        "src": "./images/icons/icon-192x192.png",
        "type": "image/png",
        "sizes": "192x192"
      },
      {
        "src": "./images/icons/icon-384x384.png",
        "type": "image/png",
        "sizes": "384x384"
      },
      {
        "src": "./images/icons/icon-512x512.png",
        "type": "image/png",
        "sizes": "512x512"
      }
    ]
```

The web app manifest is a simple JSON file that informs the browser about your web app. It tells how it should behave wh

You employ techniques that creates the ability to run project in a browser tab at a 100% functionality in devices o

Documentation: *List the devices that you used to test the project*
I mainly used my computer for my devices. Then I right-click and inspect in different modes. I do this because I can see m
that may differ from my devices.
I viewed it on iPad, iPad Pro, Galaxy Fold, Galaxy S5 (every galaxy looks the same when viewing). The thing I notice is th
Apple product versus an android product.

Is search engine optimized for page titles, meta tags, body text, headings, images, internal links, and navigation.

Documentation: Provide a description justifying how you have provided the best search engine friendly optimization that

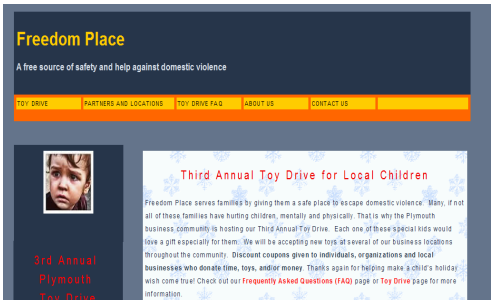
An author's meta content is essential; it lets the person know who designed the page.
Another important thing is the title tag; if you don't have a proper title or are too long, people will have a problem finding it.
descriptions. I also added alt tags to the pictures, titles to my website links, and much more.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
    <meta http-equiv="X-UA-Compatible" content="ie=edge" />
    <link rel="stylesheet" href="css/style.css" />
    <link rel="manifest" href="manifest.json" />
    <meta content="Sabrina Larson" name="author">
    <meta name="description" content="A simple PWA with Coffee Pictures."/>
    <META NAME="ROBOTS" CONTENT="INDEX, NOFOLLOW">
<!-- ios support -->
    <link rel="apple-touch-icon" href="images/icons/icon-72x72.png"/>
    <link rel="apple-touch-icon" href="images/icons/icon-96x96.png"/>
    <link rel="apple-touch-icon" href="images/icons/icon-128x128.png"/>
    <link rel="apple-touch-icon" href="images/icons/icon-144x144.png"/>
    <link rel="apple-touch-icon" href="images/icons/icon-152x152.png"/>
    <link rel="apple-touch-icon" href="images/icons/icon-192x192.png"/>
    <link rel="apple-touch-icon" href="images/icons/icon-384x384.png"/>
    <link rel="apple-touch-icon" href="images/icons/icon-512x512.png"/>
    <meta name="apple-mobile-web-app-status-bar" content="#db4938"/>
    <meta name="theme-color" content="#db4938"/>
<title>Dev'Coffee PWA</title>
</head>
<body>
  <main>
    <nav>
    <h1>Dev'Coffee</h1>
    <ul>
    <li><a href="https://www.sabrinalarson.com/ewtt/" target="_blank" title="Home">H
    <li><a href="https://sabrinalarson.com/ewtt/hello-pwa/" target="_blank" title="H
    <li><a href="https://sabrinalarson.com/ewtt/coffee-pwa/" target="_blank" title="
    </ul>
    </nav>
  <div class="container"></div>
  </main>
<script src="js/app.js"></script>
<script src="serviceWorker.js"></script>
</body>
</html>
```

Design elements such as typography, body text, headings, graphics, links and color are balanced, practical, and a unity and consistency resulting in a harmonious visual appearance applying standards of web design and develo CSS validation when applicable.

Note: *This means that every aspect of the page design has to be planned out and considered from a best practice perspe don't use 7 different font families. Best practices state 2-3. Best practices state that there should be a style design for the l treatment, hyperlink states, etc. Also, consider all aspect of both visual and nonvisual design elements. Don't forget page t text on hyperlinks, meta tags, footers, semantic structure of the page through correct use of headings, etc.*
Also: *This means that there has to be some design applied to the layout that doesn't just place one element after the othe down the page. You actually have to use CSS to position elements on the page. For example:*

Linear and Not Acceptable >> >>>>>> *Better design more acceptable.*

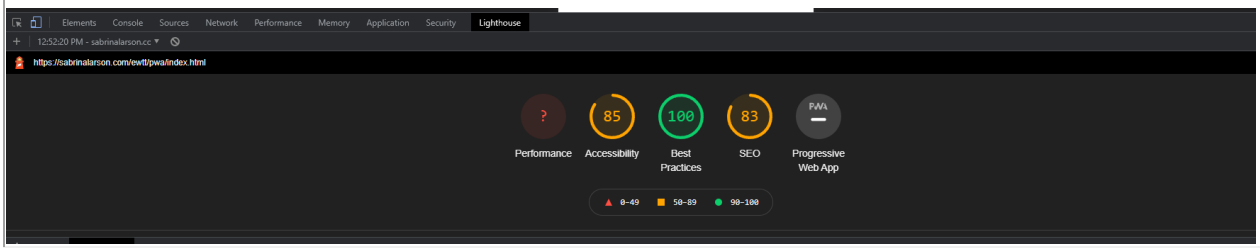


Also: *This means that all presentation styles are controlled by external CSS. This can be done in one or mu*
entire layout is controlled by external CSS.
This means that tables are not used for layout. Tables can be used for data display only.

Key:
First Point Value = Criteria Fully Met
Second Point Value = Criteria Present but minor errors exist (no redo required)
Third Point Value = Criteria needs improvement –redo required
Fourth Point Value = Criteria not present, not met

Core Abilities Scoring Guide

Criteria	Values
Think Critically and Creatively: Learner synthesizes information from a variety of sources. **Documentation:** *Cite resources that you used when submitting an assessment.* https://www.freecodecamp.org/news/build-a-pwa-from-scratch-with-html-css-and-javascript/ https://medium.com/james-johnson/a-simple-progressive-web-app-tutorial-f9708e5f2605 https://github.com/jamesjohnson280/hello-pwa/commit/25a14f038a011e4643a8133be7ace1f0b8ae4a41 https://github.com/jamesjohnson280/hello-pwa https://www.searchenginejournal.com/important-tags-seo/156440/ https://www.eversparkinteractive.com/blog/robots-meta-tag/	yes no
Think Critically and Creatively: Learner uses problem-solving and decision-making strategies. **Documentation:** *A reflection statement is included in your submission that critiques the experience you had, how you used the feedback from your peers and discusses the way you demonstrated this criterion.* **Reflection:**	yes no

While doing this assignment, I ran into a few errors with some of the PWA's. I am thankful that some of the mistakes were resolved in GitHub. Although making a PWA is fun, I had a hard time understanding it because there were some files that I didn't understand or have studied yet. JSON comes to mind, and I am still slow on JavaScript. Since we only have one class, that is hard for me to understand. I did have fun making something new, it was hard for the guide you shared to use, so I found some others that will help guide me better. I learned that you have to upload your website to your server to use Lighthouse and generate a report. 	
Work Cooperatively: Learner will use collaborative strategies to complete tasks. **Documentation:** *participation in discussion where projects are shared will be evaluated.*	yes no
Act Responsibly: Learner completes tasks according to prescribed deadlines.	yes no
Key: yes = 2 pts. no = 0 pts. The first one was just practice, and the second one was my final project. First PWA: https://sabrinalarson.com/ewtt/hello-pwa/index.html Second PWA: https://sabrinalarson.com/ewtt/coffee-pwa/	