

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

Competencies:

Investigate new and emerging web standards and specifications

Assessment Instructions:

You will demonstrate the skills gain in regards 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 validators 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 show 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		Values	
New and Emerging Web Project: Touchscreen Design			
You employ responsive design for desktop and mobile.		10 6	8 0

ebm...	<pre>117 overflow: hidden; 118 background-color: #ddd6d6; 119 } 120 121 122 @media screen and (max-width: 2000px) { 123 .leftcolumn, .rightcolumn, .center{ 124 width: 100%; 125 padding: 0; 126 } 127 } 128 129</pre>	
	<pre><head> <meta charset="utf-8"> <title>Small Dogs</title> <meta name="description" content="A simple app displaying popular small dog breeds."> <meta name="keywords" content="Small, Dog, Popular, Breed, Chihuahua, Boston Terrier, Dachshund "> <meta name="viewport" content="width=device-width, initial-scale=1"> <link rel="stylesheet" href="style.css"></pre>	
	Documentation: You provide documentation showing support of this criteria. This should include both screen captures and written explanation of application. You provide justification for the choices made. I used Media Queries and a meta viewport tag.	
	You employ a service worker to precache the app resources (HTML, CSS, JavaScript, images) needed to run and to cache the data at runtime to improve performance. Documentation: You provide documentation showing support of this criteria. This should include both screen captures and written explanation of application. You provide justification for the choices made.	10 8 6 0

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```
1  self.addEventListener("fetch", function (event) {
2
3      var staticCacheName = "smalldogs";
4
5      self.addEventListener("install", function (e) {
6          e.waitUntil(
7              caches.open(staticCacheName).then(function (cache) {
8                  return cache.addAll(["./"]);
9              });
10         });
11
12         self.addEventListener("fetch", function (event) {
13             console.log(event.request.url);
14
15             event.respondWith(
16                 caches.match(event.request).then(function (response) {
17                     return response || fetch(event.request);
18                 })
19             );
20         });
21
22         self.addEventListener("fetch", (event) => {
23             // Only call event.respondWith() if this is a navigation request
24             // for an HTML page.
25             if (event.request.mode === "navigate") {
26                 event.respondWith(
27                     (async () => {
28                         try {
29                             // First, try to use the navigation preload response if it's
30                             // supported.
31                             const preloadResponse = await event.preloadResponse;
32                             if (preloadResponse) {
33                                 return preloadResponse;
34                             }
35                             // Always try the network first.
36                             const networkResponse = await fetch(event.request);
37                             return networkResponse;
38                         } catch (error) {
39                             // catch is only triggered if an exception is thrown, which is
40                             // likely due to a network error.
41                             // If fetch() returns a valid HTTP response with a response code in
42                             // the 4xx or 5xx range, the catch() will NOT be called.
43                             console.log("Fetch failed; returning offline page instead.", error);
44                             const cache = await caches.open(CACHE_NAME);
45                             const cachedResponse = await cache.match(OFFLINE_URL);
46                             return cachedResponse;
47                         }
48                     })()
49                 );
50             }
51         });
52     });
53 }
54
55 }
```

```
40     return networkResponse;
41 } catch (error) {
42     // catch is only triggered if an exception is thrown, which is
43     // likely due to a network error.
44     // If fetch() returns a valid HTTP response with a response code in
45     // the 4xx or 5xx range, the catch() will NOT be called.
46     console.log("Fetch failed; returning offline page instead.", error);
47
48     const cache = await caches.open(CACHE_NAME);
49     const cachedResponse = await cache.match(OFFLINE_URL);
50     return cachedResponse;
51 }
52 }
53
54 }
55 }
```

I used code from the Tipcalc assignment I had in a previous class, it did not work entirely for me so I altered the code with a different resource. The resource helped, but there is still an error that I cannot figure out how to get rid off.

Resources Used:

URL: <https://www.geeksforgeeks.org/making-a-simple-pwa-under-5-minutes/>

URL: [https://developer.mozilla.org/en-US/docs/Web/Progressive web apps#](https://developer.mozilla.org/en-US/docs/Web/Progressive_web_apps#)

You employ a web app manifest and the `beforeinstallprompt` event to notify the user it's installable.

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

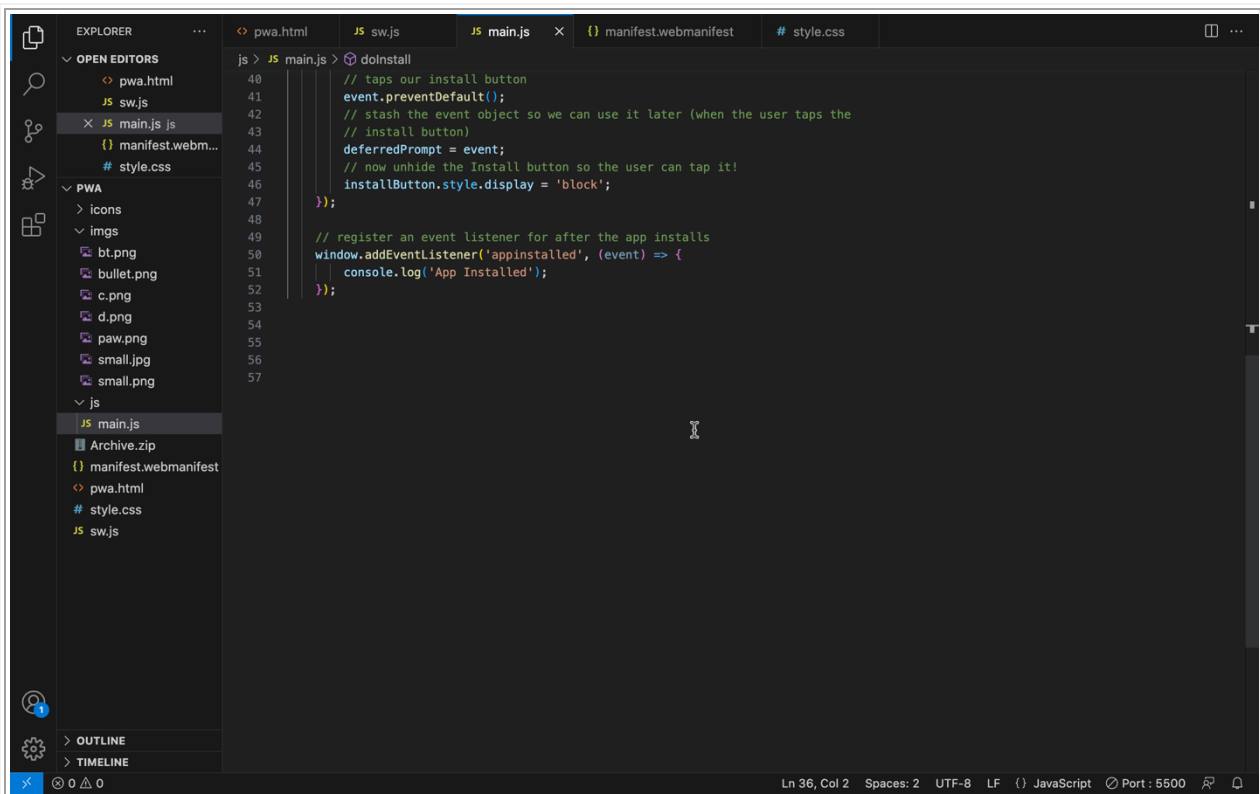
```

js > JS main.js > doInstall
1
2
3
4 //get a handle to the install button
5 let installButton =
6 document.getElementById('installButton');
7 //now set the click handler for the install button
8 installButton.onclick = doInstall;
9
10 // create an object we'll use to hold the reference to the PWA
11 // install event
12 let deferredPrompt;
13
14 // now add an event listener to respond to the event. Right
15 // before the browser installs the PWA, it fires the
16 // beforeinstallprompt event. Here, we'll manage
17 // the installation ourselves
18
19
20 function doInstall() {
21 // we've tapped the install button, so hide it
22 installButton.style.display = 'none';
23 // execute the deferred installation prompt
24 deferredPrompt.prompt();
25 // wait for the response from the deferred prompt
26 deferredPrompt.userChoice.then((res) => {
27 // did the user approve installation?
28 if (res.outcome === 'accepted') {
29 console.log('doInstall: accepted');
30 } else {
31 console.log('doInstall: declined');
32 }
33 // clear the deferred prompt object so we
34 // can only do this once
35 deferredPrompt = null;
36 });
37
38 window.addEventListener('beforeinstallprompt', (event) => {
39 // don't allow the browser to do its install, we want to do it when the user
40 // taps our install button

```

10 8
6 0

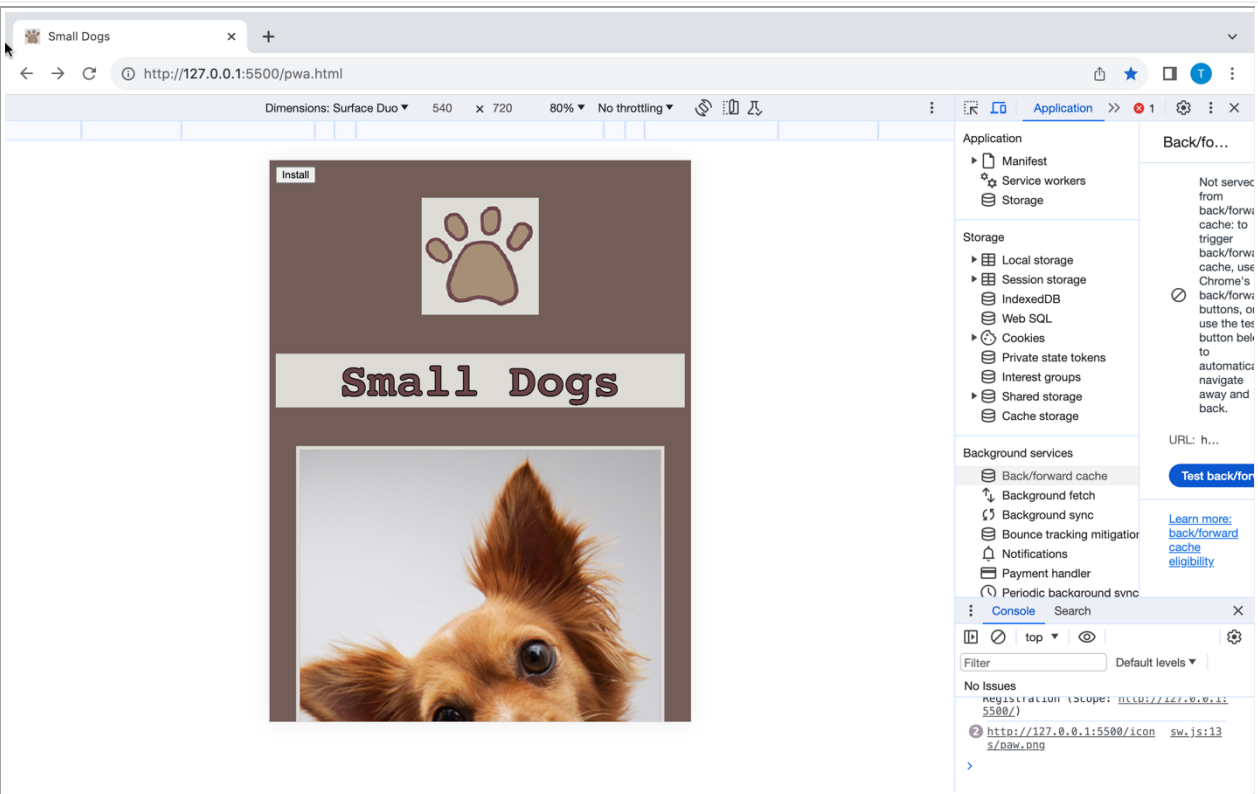
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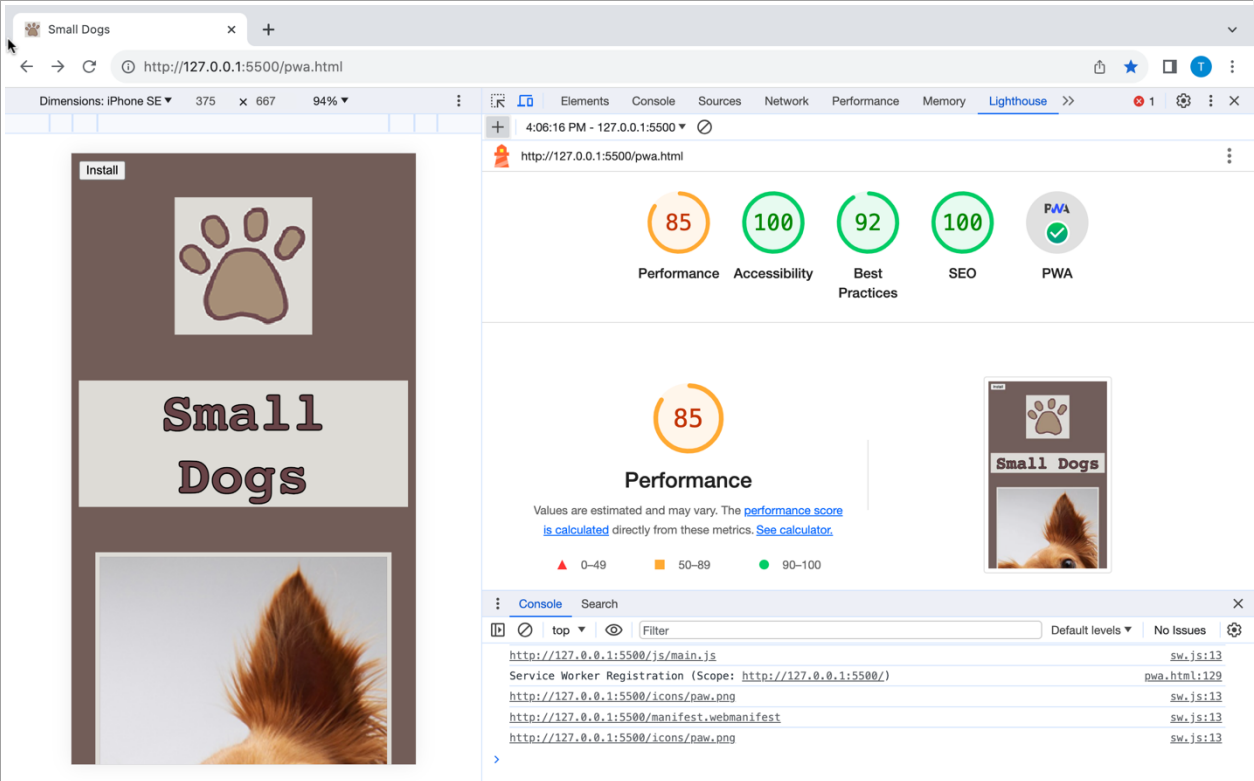


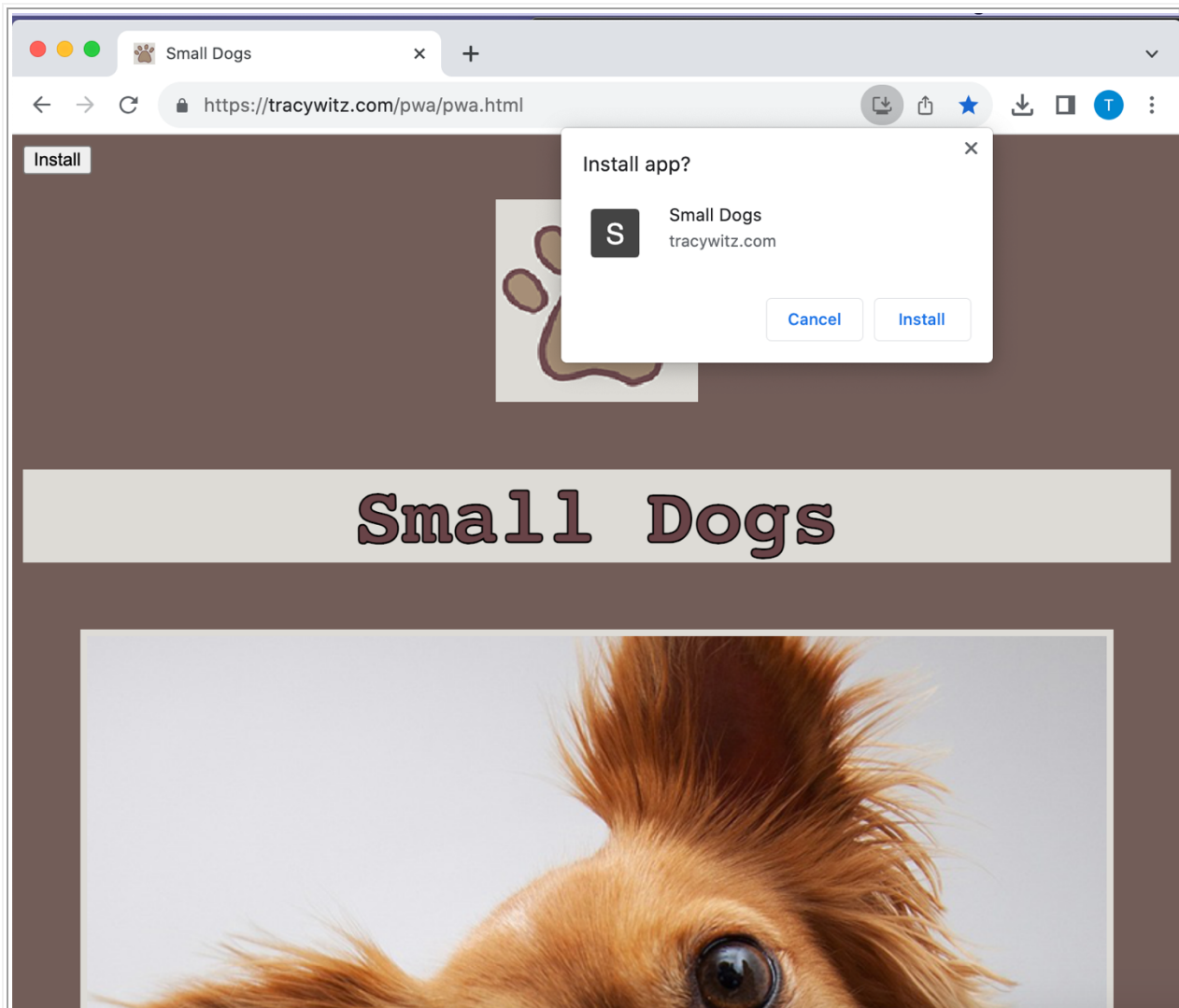
I used the Tipcalc code for this file.

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

10 8
6 0

	
functionality in devices of choice. Documentation: <i>List the devices that you used to test the project .</i> I used the W3C Validation Service for both HTML and CSS, and I used Google Chrome web tools to check my App to see if all my files were working by using Applications, Network, and Lighthouse.	
Is search engine optimized for page titles, meta tags, body text, headings, images, internal links, and navigation.	5420

	
Documentation: Provide a description justifying how you have provided the best search engine friendly optimization that you can for your project. I needed to reduce my image sizes; they were too large. I used meta descriptions and keywords.	
Design elements such as typography, body text, headings, graphics, links and color are balanced, practical, and aesthetic in order to create unity and consistency resulting in a harmonious visual appearance applying standards of web design and development including HTML and CSS validation when applicable.	10 8 6 0



I am so happy I got it to work!

URL: <https://tracywitz.com/pwa/pwa.html>

Note: This means that the every aspect of the page design has to be planned out and considered from a best practice perspective. Example: Typography, don't use 7 different font families. Best practices state 2-3. Best practices state that there should be a style design for the heading, for the text treatment, hyperlink states, etc. Also, consider all aspect of both visual and non visual design elements. Don't forget page titles, alt tags on images, title 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 other in a linear fashion straight 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.

		<i>are controlled entire layout</i>
Also: <i>This means that all presentation styles by external CSS. This means that the page's is controlled by external CSS. This can be done in one or multiple external style sheets. This means that tables are not used for layout. Tables can be used for data display only.</i>		
TOTAL:		55
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: <i>Cite resources that you used when submitting an assessment.</i>	yes no
Think Critically and Creatively: Learner uses problem-solving and decision-making strategies. Documentation: <i>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.</i> I struggled with this assignment, PWAs are not that easy to develop. There were a lot of errors on my part, requiring me to find resources to help with being able to install it and to work offline. And I feel it is also hard to get an app designed to look good for both mobile and desktop. An app should be pretty simple looking, but that simple look doesn't look well on a desktop unless you use a lot of media queries with the do not display options.	yes no
Work Cooperatively:	yes no

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Learner will use collaborative strategies to complete tasks.	
Documentation: <i>participation in discussion where projects are shared will be evaluated.</i>	
Act Responsibly: Learner completes tasks according to prescribed deadlines.	yes no
Key: yes = 2 pts. no = 0 pts.	