



TECNOLÓGICO DE MONTERREY
Campus Querétaro

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Construcción de software y toma de decisiones

Lab26: Aspectos de usabilidad

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FECHA DE ENTREGA:
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After reading the URLs provided by the professors, about the importance of creating websites that are accessible for everyone. In the first URL, the author is dividing these possible aspects to improve a website in subtopics. These subtopics are:

1. Add enough color contrast: This one explains why it is important. That people with low vision could find it difficult to read text from a background color if it has low contrast. The WHO (World Health Organization) estimates that there are 217 million who have moderate to severe vision impairment. According to W3C, the contrast ratio between text and its background should be at least 4.5 to 1.
2. Do not use color alone to make critical information understandable. When transmitting something important, showing an action or prompting a response, use an indicator, like alerts.
3. Design usable focus states. Use focus indicators with CSS pseudo class to show these outlines on elements when they're selected. This helps on the navigation for blind people, to select an element on the website. What can be focused: links, form fields, widgets, buttons and menu items THEY NEED to have the focus.
4. Use labels or instructions with form fields and inputs. Do not remove the labels in input forms.
5. Write useful alternative text for your images and other non-text content. Use the <alt> for describing images.
6. Use correct markup on your content. Use the headers when necessary, to remark something important, like a title.
7. Support keyboard navigation. Keyboard accessibility like the tab key, or when a popup(modal) is added, can delete or hide the element with "escape"

Talking about my project, I provided the next design changes. Mainly, **I changed the contrast color ratio 1.** , to be accepted by the [webAIM training](#):

Before:

Contrast Checker

[Home](#) > [Resources](#) > Contrast Checker

Foreground Color
#DEEDE5
Lightness


↔

Background Color
#EEEEEE
Lightness


Contrast Ratio
1.04:1
[permalink](#)

Normal Text

WCAG AA: **Fail**

WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Large Text

WCAG AA: **Fail**

WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Graphical Objects and User Interface Components

WCAG AA: **Fail**

Text Input


After:

Contrast Checker

[Home](#) > [Resources](#) > Contrast Checker

Foreground Color
 
Lightness


↔

Background Color
 
Lightness


Contrast Ratio
4.17:1
[permalink](#)

Normal Text

WCAG AA: **Fail**
WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Large Text

WCAG AA: **Pass**
WCAG AAA: **Fail**

The five boxing wizards jump quickly.

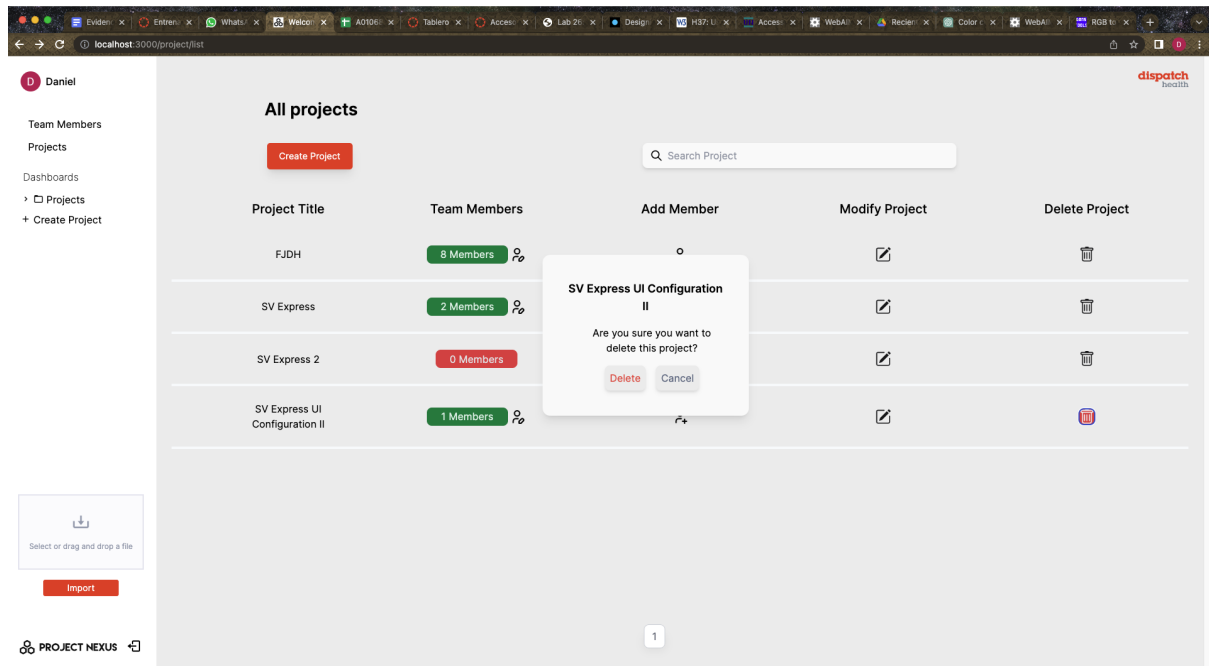
Graphical Objects and User Interface Components

WCAG AA: **Pass**

✓
Text Input

3. Design focus elements:

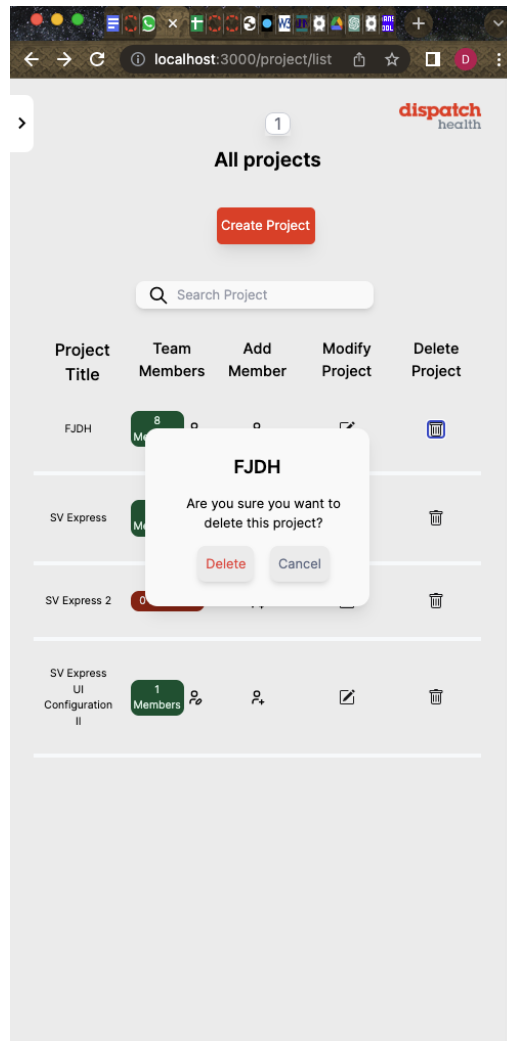
With the project list view, I added a focus when clicking an element and while the user decides what to do with the displayed pop up.



Making the web navigation for our users more accessible for all types of users.

7. Support keyboard navigation:

I made pop ups which can be closed with the escape key, this is very versatile and useful, as well as our webpage is able to navigate with tabs.



```

30 function closeByEscape(index) {
31   const popup = document.getElementById('popup-${index}');
32   const computedStyle = window.getComputedStyle(popup);
33   if (computedStyle.display !== 'none' && popupOpen) {
34     handleKeyDown = function (event) {
35       if (event.key === 'Escape') {
36         console.log("Escape: ");
37         event.stopImmediatePropagation();
38         popup.classList.toggle('hidden');
39         document.removeEventListener('keydown', handleKeyDown);
40         popupOpen = false;
41       }
42     };
43     document.addEventListener('keydown', handleKeyDown);
44   }
45 }

```

These changes are important because as the [UN](#) say, it is a requisite for deploying a website in the United States, to make it accessible following the 7 subtopics covered in the start of the page. I think the most important accessibility guidelines are: Add enough color contrast, and supporting keyboard navigation, as well as making the contrast when an important message is trying to be communicated to the user.

The screen shots were made in my branch, to apply them I need to talk to my team.