

Final Project

Programming Useable Interfaces

FP4

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Lab D

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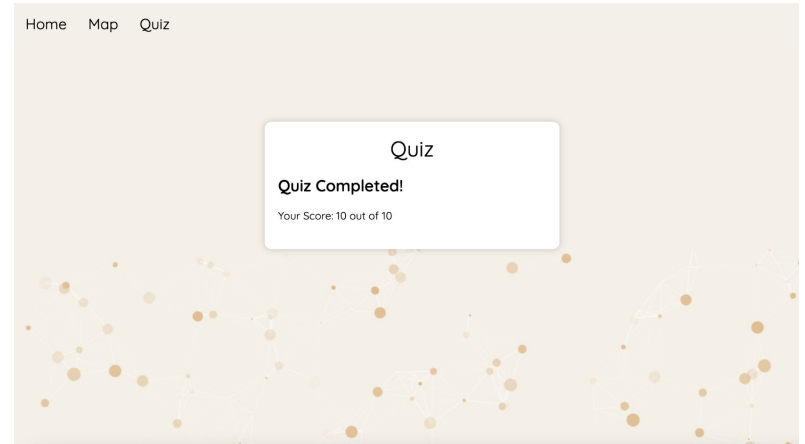
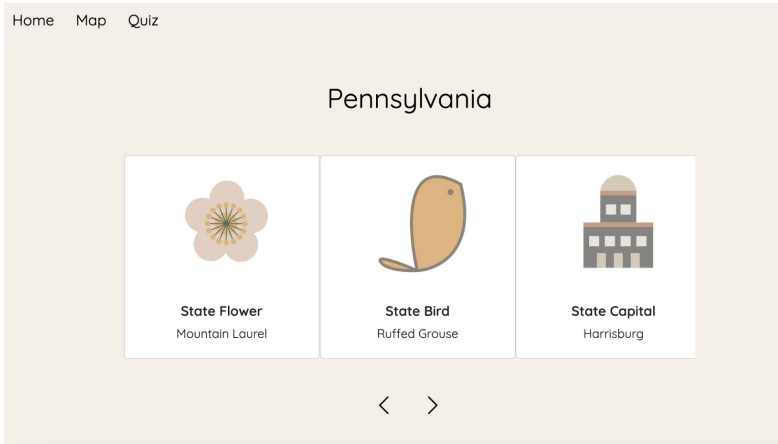
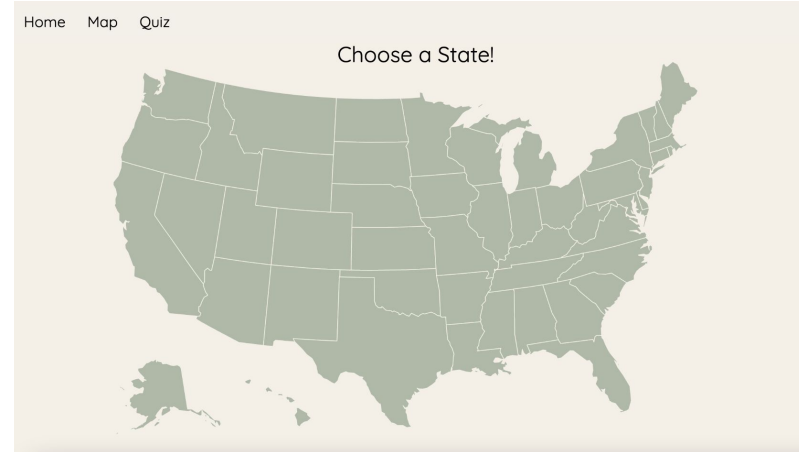
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Final Product

Screens

1403 x 785

414 x 896



Part 1

Website Description

The purpose of my website is to create a fun and exciting way for families to learn about the United States. The first thing the user sees is an arrangement of photos from around the country. I wanted to capture the vast beauty of the country so I included images of the beach, canyons, forests, cities, deserts, and monuments. Next, I wanted the user to interact with a map of the United States. As they hover over the different states they will see the name of that state. I did this because I believe strongly in interactive learning and I think that being able to see the name of the state, as well as the shape and location of the state at the same time, will help users remember the different states. Then, once the user has selected a state they want to learn more about, they will see a carousel that includes nine different state facts. I chose to include the state flower, bird, capital, nickname, statehood, abbreviation, food, notable musician, and largest city. I chose to include these because they are important to a state's identity. Additionally, you might learn these facts about your state at some point, but you might not necessarily remember them later on. I wanted to compile all of this information into one place for users to make it simple for them to access that information. Lastly, I wanted to create a fun way for users to test their knowledge and inspire them to look around at more states on my website. For this I decided to create a quiz. I thought this would be a fun feature that users could complete with friends and family.

Part 2

User Interactions

#1 Navigate to website

#2 Hover over “Learn All About the USA”

#3 Click “Learn All About the USA” to enter the website

#4 Hover mouse over state of choice

#5 Click on state of choice

#6 Use right arrow to navigate to second set of cards

#7 Use right arrow to navigate to third set of cards

#8 Click on “Quiz” in the navigation bar

#9 Press on “Start Quiz”

#10 Click on the answer you think is correct

#11 Once quiz is complete and you have received your score, feel free to click on “Map” in the navigation bar and explore more states!

Part 3

Tools Used

#1

- ❑ Particles.js
- ❑ I chose to use this javascript library because I wanted to add a special effect to my website that would make people feel a sense of celebration.
- ❑ I decided to add a burst of confetti when the user completes the quiz. When the user finishes the quiz and gets their score, confetti (colored to match my theme) falls from the quiz.
- ❑ I think this adds a sense of playfulness and movement to my website, and sets the quiz apart from the rest of the pages. I see it as a reward for the user for having taken the quiz and I hope it will spark a little bit of joy for them.

#2

- ❑ SVG map
- ❑ I chose to use this because I believe in interactive learning and I wanted to encourage the user to actively interact with the map as a way of exploring the different states.
- ❑ I included the SVG within my HTML map page, and the paths made up the state borders. Then, when users hover over the bounded area that makes up a state, a textbox appears with the name of that state.
- ❑ This adds an interactive element to my website. Instead of choosing from a list of text, the user gets to explore the map for themselves and learn as they go.

Part 4

Iterations

While I kept the general function and purpose of my website consistent throughout my process, I changed the theme. I originally had designed a postcard theme for my website but when I actually went to build my website it felt quite dull. Instead, I decided to shift to a more neutral and traditionally Japanese color-scheme. Another change I made throughout my process was that I removed the flipping flashcards. Originally I had wanted the state facts to be on flashcards that the user could flip through, but when I actually implemented this it was quite chaotic and the constant movement detracted from the experience.

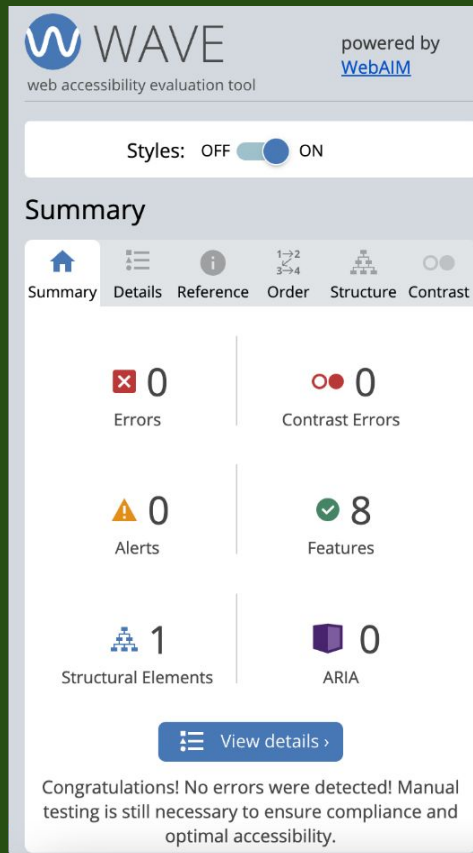
Part 5

Challenges

The greatest challenge I faced in implementing my website was connecting the various pieces of information. Connecting the user's click of the map to the page that corresponded to that state and then filling the flashcards with that state's information was a lot to organize. Additionally, formatting my carousel to show three cards at once was difficult because I found that the default for any way I tried was to only show one card at a time. However, with proper time I was able to achieve my desired style.

Appendix

WAVE: Homescreen



The WAVE homescreen displays the tool's logo and name, 'powered by WebAIM', and a 'Styles' toggle switch set to 'ON'. Below this is a 'Summary' section with a navigation bar containing icons for Summary, Details, Reference, Order, Structure, and Contrast. The main content area shows six categories with their respective counts: Errors (0), Contrast Errors (0), Alerts (0), Features (8), Structural Elements (1), and ARIA (0). Each category is represented by a colored icon and a large number. At the bottom, there is a 'View details' button and a congratulatory message: 'Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.'

WAVE
web accessibility evaluation tool

powered by
[WebAIM](#)

Styles: OFF ☒ ON

Summary

Summary Details Reference Order Structure Contrast

Errors 0

Contrast Errors 0

Alerts 0

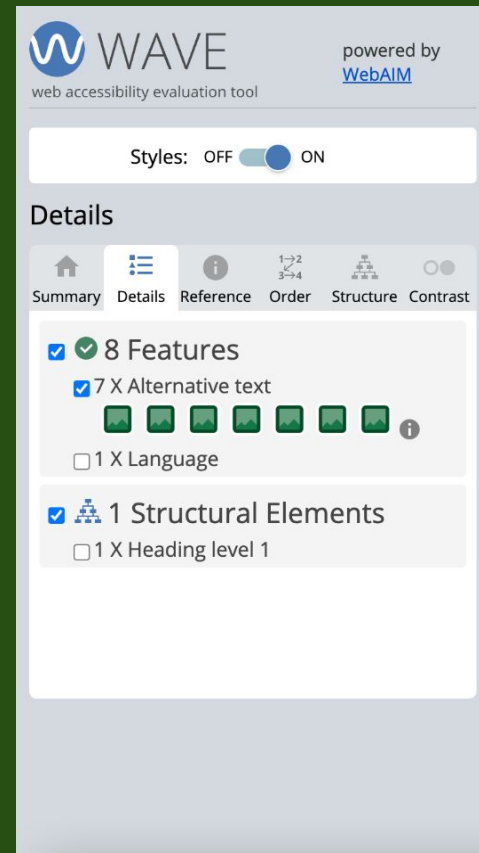
Features 8

Structural Elements 1

ARIA 0

[View details](#)

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.



The WAVE details view shows the 'Details' section selected in the navigation bar. It displays a list of features and structural elements. The '8 Features' section includes '7 X Alternative text' (checked) and '1 X Language' (unchecked). The '1 Structural Elements' section includes '1 X Heading level 1' (unchecked). Each item is accompanied by a small icon representing the feature or element.

WAVE
web accessibility evaluation tool

powered by
[WebAIM](#)

Styles: OFF ☒ ON

Details

Summary Details Reference Order Structure Contrast

☒ ☒ 8 Features

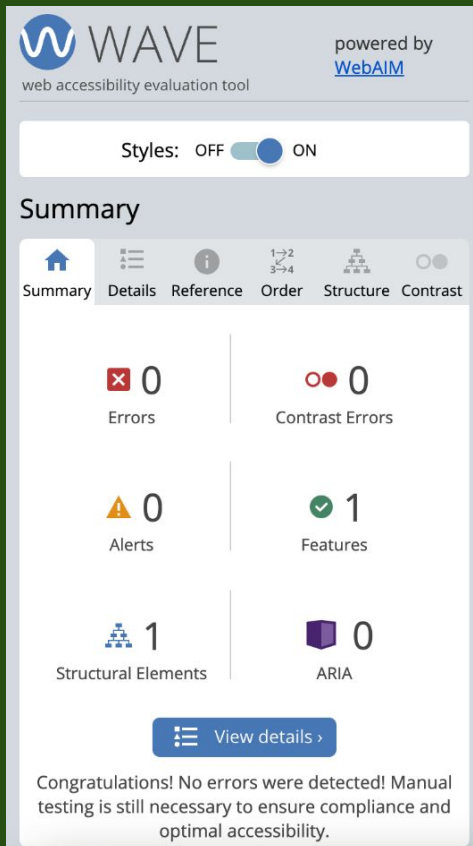
☒ 7 X Alternative text

☐ 1 X Language

☒ 1 Structural Elements

☐ 1 X Heading level 1

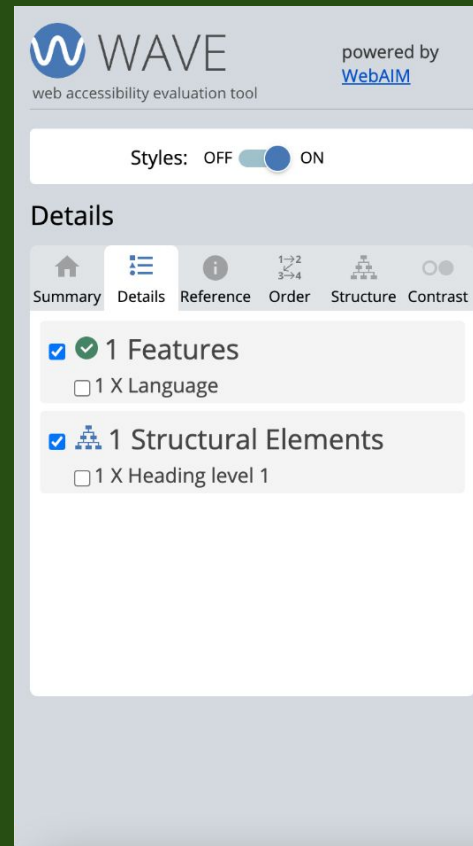
WAVE: Map Screen



The WAVE Summary screen displays the results of a web accessibility evaluation. At the top, the WAVE logo is shown with the text "powered by WebAIM" and "web accessibility evaluation tool". Below this is a toggle switch for "Styles" set to "ON". The main section is titled "Summary" and contains a navigation bar with icons for Summary, Details, Reference, Order, Structure, and Contrast. The summary data is presented in a grid:

Category	Count
Errors	0
Contrast Errors	0
Alerts	0
Features	1
Structural Elements	1
ARIA	0

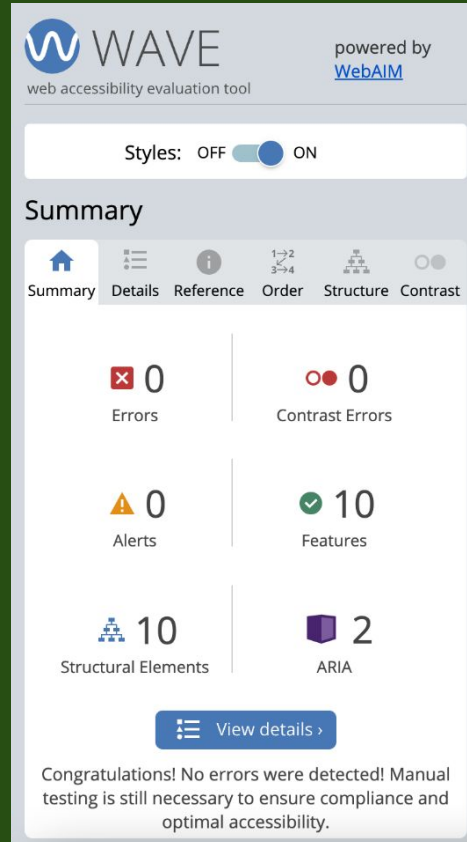
At the bottom, there is a "View details" button and a congratulatory message: "Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility."



The WAVE Details screen provides a detailed view of the evaluation results. It features the same header and navigation bar as the Summary screen. The "Details" section is expanded, showing the following items:

- ☒ 1 Features
 - ☐ 1 X Language
- ☒ 1 Structural Elements
 - ☐ 1 X Heading level 1

WAVE: State Screen









The screenshot shows the WAVE web accessibility evaluation tool interface. At the top, it says 'powered by WebAIM'. Below that is a toggle switch for 'Styles' set to 'ON'. The main section is titled 'Summary' and contains a navigation bar with icons for Summary, Details, Reference, Order, Structure, and Contrast. The summary area displays six categories with their respective counts: Errors (0), Contrast Errors (0), Alerts (0), Features (10), Structural Elements (10), and ARIA (2). Each category has a corresponding icon. At the bottom, there is a 'View details >' button and a congratulatory message: 'Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.'

WAVE powered by WebAIM
web accessibility evaluation tool

Styles: OFF ☒ ON

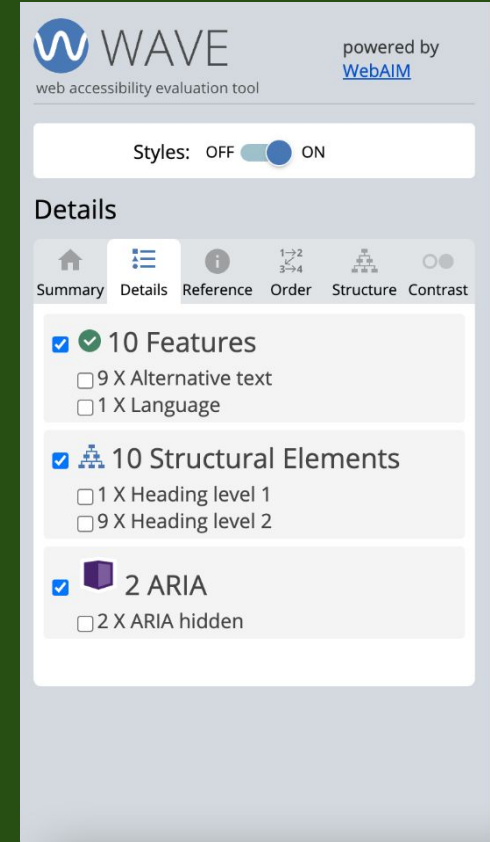
Summary

Summary Details Reference Order Structure Contrast

 0 Errors	 0 Contrast Errors
 0 Alerts	 10 Features
 10 Structural Elements	 2 ARIA

[View details >](#)

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.






The screenshot shows the 'Details' view of the WAVE web accessibility evaluation tool. It has the same header and 'Styles' toggle as the summary screen. The navigation bar is now set to 'Details'. The content area lists three categories with their counts and sub-items: '10 Features' (with sub-items: 9 X Alternative text, 1 X Language), '10 Structural Elements' (with sub-items: 1 X Heading level 1, 9 X Heading level 2), and '2 ARIA' (with sub-item: 2 X ARIA hidden). Each category has a checkbox and a green checkmark icon.

WAVE powered by WebAIM
web accessibility evaluation tool

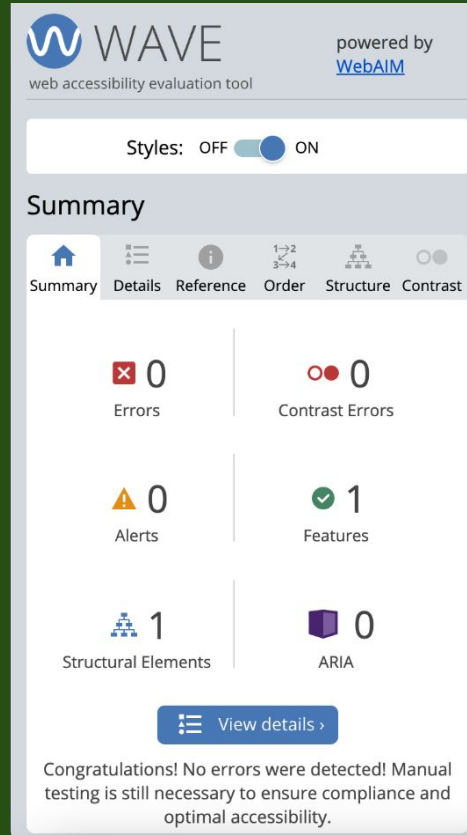
Styles: OFF ☒ ON

Details

Summary Details Reference Order Structure Contrast

- ☒  10 Features
 - ☐ 9 X Alternative text
 - ☐ 1 X Language
- ☒  10 Structural Elements
 - ☐ 1 X Heading level 1
 - ☐ 9 X Heading level 2
- ☒  2 ARIA
 - ☐ 2 X ARIA hidden

WAVE: Quiz Screen









The WAVE Summary screen displays the results of a web accessibility evaluation. At the top, the WAVE logo and 'powered by WebAIM' are shown. Below this is a toggle switch for 'Styles' set to 'ON'. The 'Summary' section features a navigation bar with icons for Summary, Details, Reference, Order, Structure, and Contrast. The main content area shows six categories with their respective counts: Errors (0), Contrast Errors (0), Alerts (0), Features (1), Structural Elements (1), and ARIA (0). Each category is represented by an icon and a large number. At the bottom, a 'View details >' button is present, followed by a congratulatory message: 'Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.'

WAVE powered by WebAIM
web accessibility evaluation tool

Styles: OFF ☒ ON

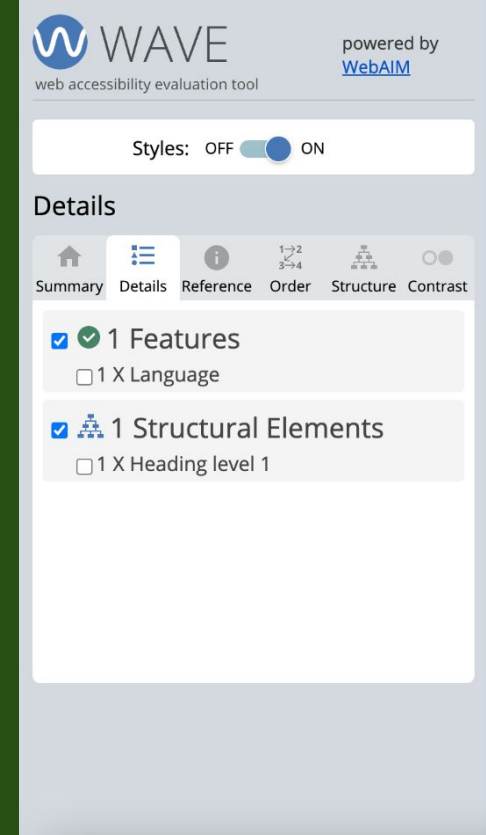
Summary

Summary Details Reference Order Structure Contrast

 0	 0
Errors	Contrast Errors
 0	 1
Alerts	Features
 1	 0
Structural Elements	ARIA

[View details >](#)

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.





The WAVE Details screen provides a breakdown of the accessibility features found. It has the same header and 'Styles' toggle as the Summary screen. The 'Details' section has a navigation bar with icons for Summary, Details, Reference, Order, Structure, and Contrast. The main content area lists two categories: '1 Features' (checked) with a sub-item '1 X Language' (unchecked), and '1 Structural Elements' (checked) with a sub-item '1 X Heading level 1' (unchecked). Each item is preceded by a checkmark icon.

WAVE powered by WebAIM
web accessibility evaluation tool

Styles: OFF ☒ ON

Details

Summary Details Reference Order Structure Contrast

- ☒  1 Features
 - ☐ 1 X Language
- ☒  1 Structural Elements
 - ☐ 1 X Heading level 1

end.

Thank You