

Creating An Accessible Web Page











Lab Notebook by Perrin Anto (paj2117)

Initial Web Page Given







<https://github.com/perrindesign/fixing-website-accessibility/commit/d0371b69e22e2e317cadb9802512fe83086e4bc7>

Initial WAVE Accessibility Evaluation Results





✓ ✖ 10 Errors

- ✓ 1 X Missing alternative text

- ✓ 3 X Linked image missing alternative text

- ✓ 5 X Missing form label

- ✓ 1 X Document language missing


✓ ⚠ 6 Alerts




- ✓ 1 X No heading structure

- ✓ 1 X No page regions

- ✓ 1 X Broken same-page link

- ✓ 1 X Tabindex

- ✓ 1 X Very small text

- ✓ 1 X HTML5 video or audio


✓ ✔ 4 Features

- ✓ 4 X Alternative text


✓ ○ 3 Contrast Errors

3 X Very Low Contrast



Making the Page Accessible

Severity Scale

For this evaluation, I will rank the accessibility problem severity on a scale from 1 (very low severity) to 5 (very high severity).

Headings and Landmarks

Description	The page has no heading structure
Severity	3
Solution	I removed the class attributes "heading2" and replaced the div tag with the <h2> tag to provide heading structure for "links" and "sign up"
WAVE Detection	True: "No heading structure"

Description	The page doesn't have a header 1
Severity	2
Solution	I added a header to the document above the image banner that had the "Accessibility Overview" text in it. I replaced the banner image with the "blankbackground.png" to remove the text in the image.
WAVE Detection	True: "No heading level 1"

Description	The page has no main landmark
Severity	3
Solution	Removed <div> that was offscreen that said "main content" and replaced it with a <main> tag. Removed the class "container" and applied the css attributes to <main>.
WAVE Detection	True: "No page regions"

Description	The page has no nav landmark
Severity	4
Solution	Removed the <div> with the class "navigation" and replaced it with <nav>. I reassigned the css attributes from the "navigation" class.
WAVE Detection	True: "No page regions"

Good Alternative Text for Images

Description	There is no alt text for the banner image.
Severity	4
Solution	I changed the tag from <div> to and added the “alt” attribute with descriptive alternative text.
WAVE Detection	False

Form Labels

Description	The text input form controls do not have corresponding labels.
Severity	5
Solution	I used the <label> element to connect the forms with their respective form controls. I also broke the middle initial and last name forms onto new lines with text to describe the form field.
WAVE Detection	True: “Missing form label”

Description	The text area form control does not have a corresponding label.
Severity	5
Solution	I used the <label> element to connect the form with its respective form control.
WAVE Detection	True: “Missing form label”

Form Widgets without Semantics

Description	The checkbox form controls do not have corresponding labels and include images for the checkbox without semantics and alt text.
Severity	4
Solution	I used the <label> element to connect the form with its respective form controls. I used <fieldset> and <legend> to more clearly connect the question being asked to the checkbox. I think this solution is better than adding the semantics and alt text through javascript to the former checkbox images, the standard checkbox is more familiar to users and appears more interactable.
WAVE Detection	True: "Missing form label"

Video Captions

Description	The embedded video does not have captions.
Severity	5
Solution	I uploaded the video to youtube, wrote the captions, time synced them, and embedded the youtube video on the web page.
WAVE Detection	Kind of: "HTML5 video or audio"

Audio Descriptions

Description	Visual content, specifically the information in the graph, is not adequately mentioned in the audio track.
Severity	4
Solution	I wrote alt text for the graph, recorded myself speaking the alt text, edited the video using Premiere Pro, and uploaded the video to youtube to closed caption and embed in the web page.
WAVE Detection	Kind of: "HTML5 video or audio"

Tab Order & Visible Focus

Description	Home, Links, and Sign Up images/links don't focus while tabbing through the page.
Severity	3
Solution	I removed the css attribute "outline: none" from the links in the navigation region. I also replaced the images for the links with text so that the links would be readable by a screen reader and have a AAA contrast rating.
WAVE Detection	False

Color Contrast

Description	The text in the original banner image does not have at least AA color contrast.
Severity	2
Solution	I removed the text from the banner image and placed it in a header below with black text on a white background.
WAVE Detection	False

Description	The links do not pass AA contrast ratings.
Severity	3
Solution	I changed the links to a AAA contrast rated color for white backgrounds, and changed the color from grey / added underlining to give more affordance that they are links.
WAVE Detection	True: "Very Low Contrast"

Keyboard Access

Description	The home link was broken
Severity	2
Solution	I added the id "home" to the <h1> "Accessibility Overview".
WAVE Detection	True: "Broken same-page link"

Description	The hamster link was broken
Severity	1
Solution	I changed the link to the wikipedia page for the hamster meme
WAVE Detection	False

Information Conveyed Only via Color

Description	The missed required fields answers in the form are highlighted with red text. This red text that is added in the field when a sign up is unsuccessful is not viewable when nothing is typed in that required field. There is no other indication of the fields missed or that the sign up was unsuccessful.
Severity	2
Solution	I wrote "(Required)" next to required fields in the form. I added an alert if any of the required fields were missed and directed the users back to those fields to properly sign up. I changed the red text color css attribute to a light red background (AAA contrast rated with black text) that appears on the missing required fields.
WAVE Detection	False

Other

Description	The language of the document is not identified.
Severity	5
Solution	Specify the language in the <html> tag.
WAVE Detection	True: "Document language missing"

Description	The list of links used images as bullets and did not use a list tag
Severity	2
Solution	I removed the bullet images and used the unordered list tag to create a smoother tabbing experience / identification of a list.
WAVE Detection	False

Description	Middle initial was a required field, but not everyone has a middle initial.
Severity	5
Solution	I removed the middle initial from being a required field in the form.
WAVE Detection	True: "Missing form label"

Final Web Page

<https://perrindesign.github.io/fixing-website-accessibility>

Final WAVE Accessibility Evaluation Results

✓ 8 Structural Elements

✓ 1 X Heading level 1



✓ 3 X Heading level 2



✓ 1 X Unordered list



✓ 1 X Inline Frame



✓ 1 X Navigation



✓ 1 X Main content



✓ 8 Features

✓ 1 X Alternative text



✓ 6 X Form label



✓ 1 X Fieldset



No errors or alerts found by WAVE or while manually testing the website with a keyboard or screen reader!