

Web Accessibility (A11y)



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1. Why is Accessibility important?
2. What is Web Accessibility?
3. Inclusive Design & Diverse Abilities
4. Principles
5. Assistive technologies
6. What you can do

Why is Accessibility important?



1 in 12 men have trouble differentiating colors (color blindness) - colourblindawareness.org

1 out of 7 people in the world has some sort of disability - *World Health Organization*

20% of the US Population has some sort of disability - *US Census Bureau*

98% of web home pages have accessibility issues - [WebAIM Million Report](#)

What is Accessibility?

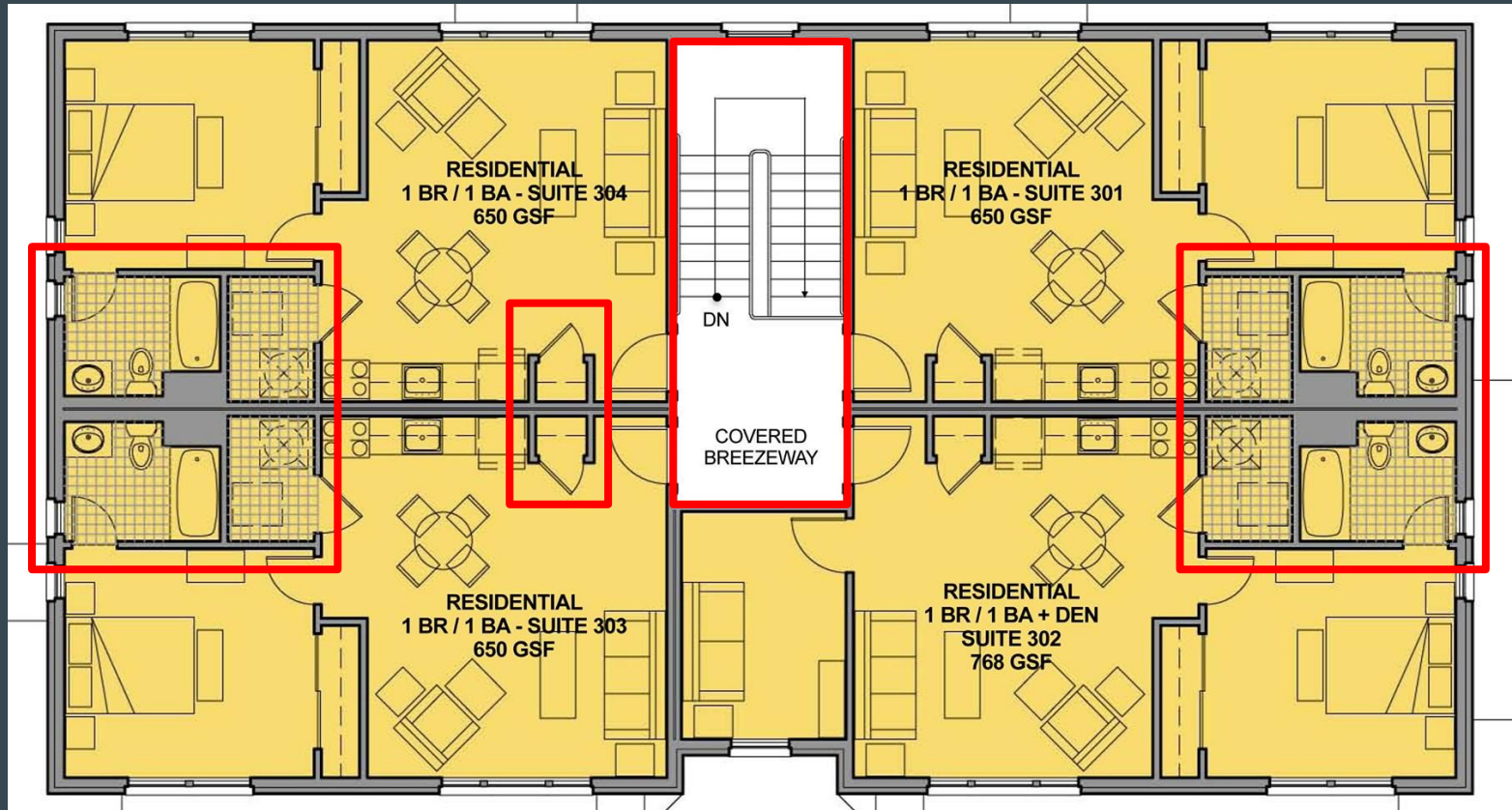
Accessibility is the design of products, devices, services, or environments for people with disabilities.

Why is Accessibility
important?

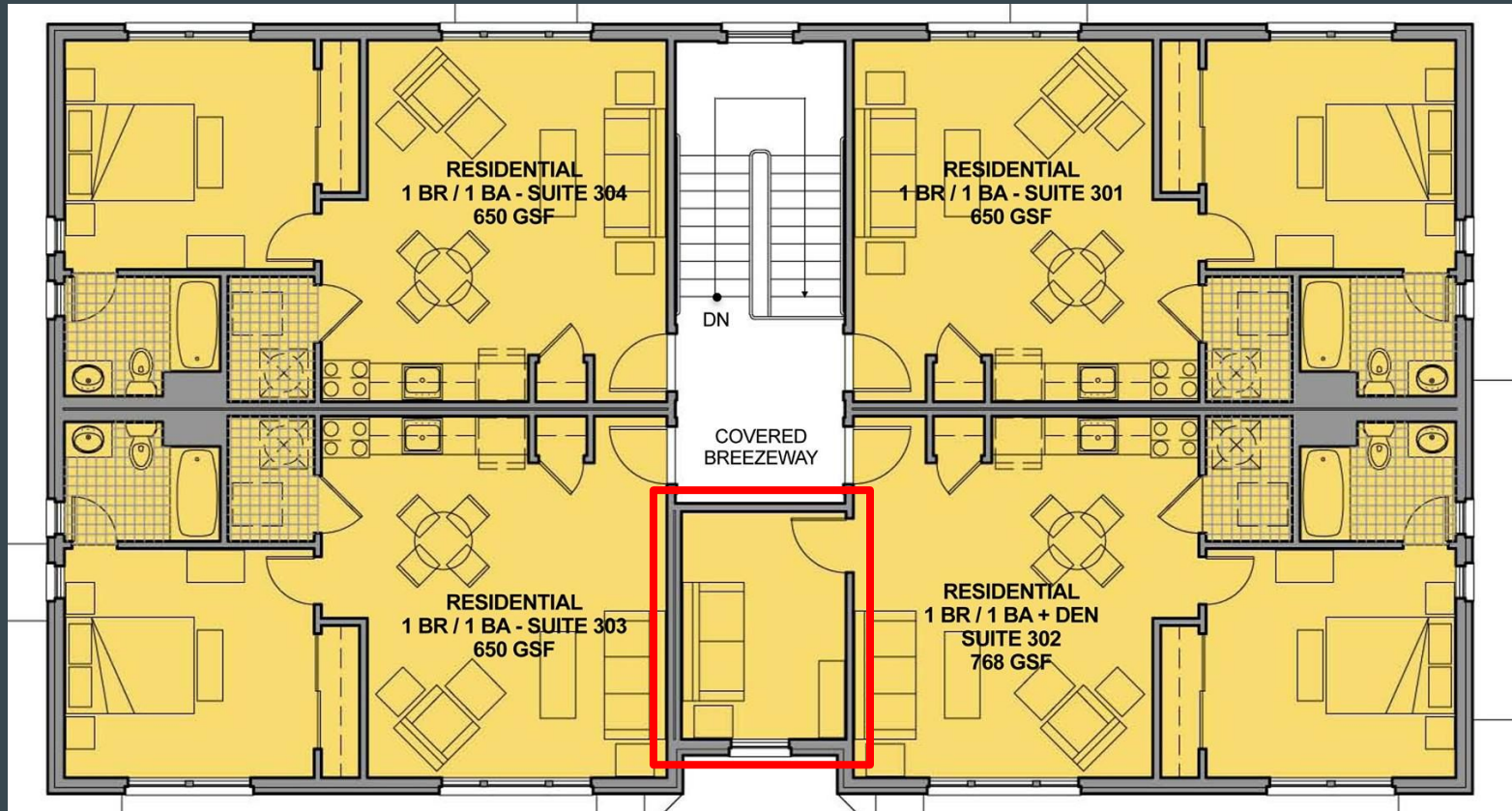
Accessibility is the design of
products, devices, services, or
environments for people with
disabilities.

Accessibility means ***independence.***

Importance of Inclusive Design



Importance of Inclusive Design



Accessibility benefits everyone!



Failing to design inclusively



Diverse abilities



Web Accessibility principles

- WWW is fundamentally designed to work for all people
- WWW removes barriers to communication and interaction
- Badly designed websites, applications, technologies, etc. introduce barriers

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Many organisations are waking up to the fact that embracing accessibility leads to multiple benefits – strengthening brand presence, improving customer experience, colleague productivity, and reducing legal risks.

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Web Accessibility principles - POUR



Perceivable



Operable



Understandable



Robust

POUR



Operable



Understandable



Robust

Perceivable:

People can see, hear, and/or feel the content

POUR



Perceivable



Operable



Understandable



Robust

Operable:

People can use the software via keyboard, mouse, voice, etc.

POUR



Perceivable



Operable



Understandable



Robust

Understandable:

People get clear and simple language

POUR



Perceivable



Operable



Understandable



Robust

Robust:

People can use different assistive technologies

Assistive Technologies

Assistive Technologies

- Screen reader



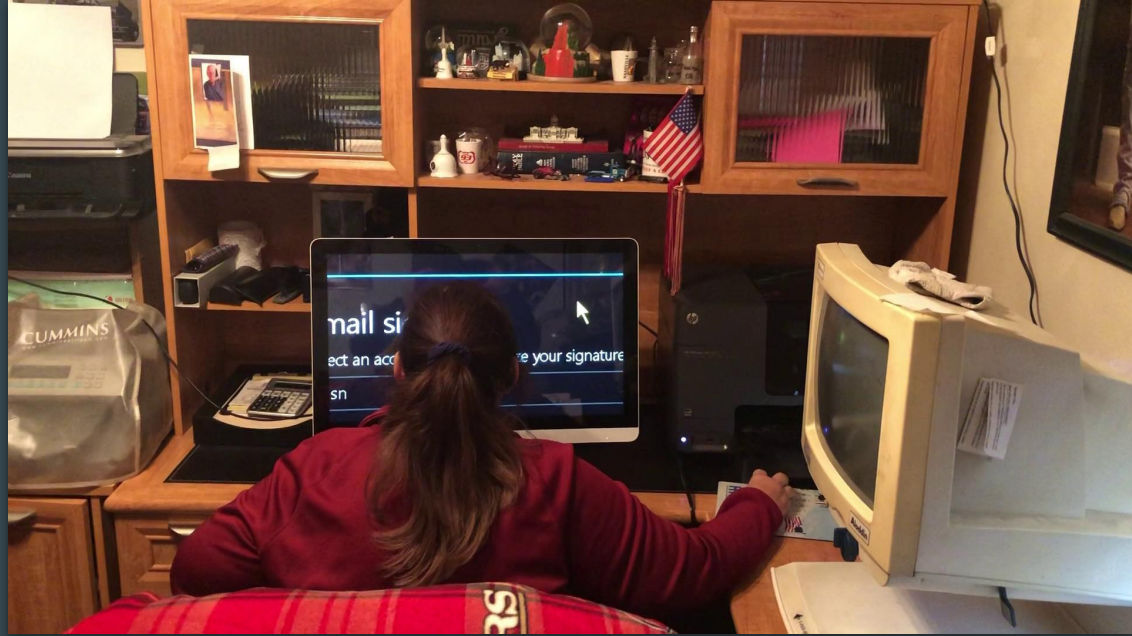
Assistive Technologies

- Screen reader
- Text-to-speech



Assistive Technologies

- Screen reader
- Text-to-speech
- Screen magnification



Assistive Technologies

- Screen reader
- Text-to-speech
- Screen magnification
- Custom color theming

qb Time

Schedule

Actions ▾ JOBS All TEAM MEMBERS all team members

Today < > Apr 5 - 11, 2021

VIEW BY Team member ▾

		Mon 5 8:00	Tue 6 0:00	Wed 7 0:00	Thu 8 1:30	Fri 9 0:00
? unassigned	0:00					
[Profile]	0:00					
[Profile]	0:00					
[Profile]	0:00					
[Profile]	0:00					
[Profile]	0:00					
[Profile]	0:00					
[Profile]	0:00					
[Profile]	0:00					
[Profile]	0:00					

Feature Add-ons >

qb Time

Schedule

Actions ▾ PROJECTS All TEAM MEMBERS all team members

Today < > Apr 4 - 10, 2021

My Full Week ▾ Published

VIEW BY Team member ▾

		Sun 4 0:00	Mon 5 8:00	Tue 6 8:00	Wed 7 16:00	Thu 8 8:00	Fri 9 8:00	Sat 10 0:00
? unassigned	0:00							
[Profile]	40:00		Other Paid Leave 8hrs	Other Paid Leave 8hrs	Other Paid Leave 8hrs	Other Paid Leave 8hrs	Other Paid Leave 8hrs	
[Profile]	0:00							
[Profile]	8:00				Vacation Taken 8hrs			
[Profile]	0:00							
[Profile]	0:00							
[Profile]	0:00							
[Profile]	0:00							

My Team
Projects
Company Settings
Feature Add-ons >

?

Using a screen reader

1. [Accessibility Testing Site](#)

Acme Widgets

Exploring the usability and accessibility of widgets

About this site

This web site includes sets of pages to test accessible and non-accessible methods for writing HTML. This will allow us to test patterns on multiple devices and assistive technologies. It will also give us controls for doing automated testing. The menu to the left will contain the test pages.

What you can do

1. Use semantic HTML

What you can do

1. Use semantic HTML

```
1  <section>
2    <h1>This is my page title!</h1>
3    <div>This is my first paragraph of my page.</div>
4  </section>
5  <section>
6    <h3>This is a heading for my first section.</h3>
7    <div>This is the paragraph. It also contains a link to <span class="link" onclick="goToGoogle()">Google's homepage</span>.</div>
8    <div>This paragraph contains a button to <div class="btn-custom" onclick="submitFeedback()">submit feedback</div>.</div>
9  </section>
10 <section>
11   <h5>This is a heading for my second section.</h5>
12   <div>This section includes an image.</div>
13   <div>
14     
15   </div>
16   <div>
17     <div class="checkmark">List item one</div>
18     <div class="checkmark">List item two</div>
19     <div class="checkmark">List item three</div>
20   </div>
21 </section>
22
```


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```
1 <section>
2   <h1>This is my page title!</h1>
3   <div>This is my first paragraph of my page.</div>
4 </section>
5 <section>
6   <h3>This is a header for my first section.</h3>
7   <div>This is the first paragraph. It also contains a link to the homepage</div>
8   <div>This paragraph contains a button to submit feedback</div>
9 </section>
10 <section>
11   <h5>This is a header for my second section</h5>
12   <div>This section contains an image.</div>
13   <div>
14     
15   </div>
16   <div>
17     <div class="checkbox">One</div>
18     <div class="checkbox">Two</div>
19     <div class="checkbox">Three</div>
20   </div>
21 </section>
22
```

What you can do

1. Use semantic HTML

```
1  <section>
2    <h1>This is my page title!</h1>
3    <p>This is my first paragraph of my page.</p>
4  </section>
5  <section>
6    <h2>This is a heading for my first section.</h2>
7    <p>This is the paragraph. It also contains a link to <a href="http://www.google.com">Google's homepage</a>.</p>
8    <p>This paragraph contains a button to <button onclick="submitFeedback()">submit feedback</button></p>
9  </section>
10 <section>
11   <h2>This is a heading for my second section.</h2>
12   <p>This section includes an image.</p>
13   <div>
14     
15   </div>
16   <ul>
17     <li>List item one</li>
18     <li>List item two</li>
19     <li>List item three</li>
20   </ul>
21 </section>
22
```

What you can do

1. Use semantic HTML
2. Use reusable UI components that are accessible
 - a. [Vue.js Accessibility Basics](#)



What you can do

1. Use semantic HTML
2. Use reusable UI components that are accessible
3. Test the UI using only your keyboard
 - a. tab / shift+tab to move forwards and backwards
 - b. enter to activate a button or a link
 - c. space to check/uncheck a checkbox
 - d. up/down/left/right to select a radio button in a radio button group

What you can do

1. Use semantic HTML
2. Use reusable UI components that are accessible
3. Test the UI using only your keyboard
4. Test the UI using a screen reader
 - a. Windows - download and use [NVDA](#)
 - b. Mac/iOS - use [VoiceOver](#) (built-in)
 - c. Android - use [Talkback](#) (built-in)

Links to resources

1. [Web Content Accessibility Guidelines](#) (WCAG)
2. [NVDA Shortcut Keys](#)
3. [MacOS VoiceOver Guide](#)
4. [Android TalkBack Guide](#)
5. [Vue.js Accessibility Basics](#)
6. [Accessibility Testing Site](#)
7. <https://github.com/joshharrison626/Intro-To-Accessibility>