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What the European Accessibility Act Means for VueJs Developers

By Louëlla Creemers



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Today

- European Accessibility Act (EAA).
- Web Content Accessibility Guidelines (WCAG).
- How to improve your VueJS application.

Spoiler alert

This session is all
about thinking of
others that might be
different from us.



How many people live with a disability?

A) 1 out of 6

B) 1 out of 20

C) 1 out of 40

How many people live with a disability?

A) 1 out of 6







B) 1 out of 20







C) 1 out of 40

Super user

- Is technically very smart.
- Knows where to click and when.
- Has no disabilities.

But wait... there's more

	Permanent	Temporary	Situational
Touch			
	One arm	Arm injury	New parent
See			
	Blind	Cataract	Distracted driver

	Permanent	Temporary	Situational
Hear			
	Deaf	Ear infection	Bartender
Speak			
	Non-verbal	Laryngitis	Heavy accent

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What is the EAA?

- A directive set up by the European Union.
- Aimed to improve accessibility for everyone.
- Transposed into law by June 2025.

Who needs to comply?

- Public sector websites (kind of).
- Private sector websites:
 - Banking
 - E-commerce
 - Media websites
 - Travel
 - Telephone- or TV services
- B2C.
- Over 10 employees.
- Over 2 million turnover.

Failure to comply ⁺ •
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If you don't comply

- You can get sued.
- You can get fined.

How to comply



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WCAG

- Web Content Accessibility Guidelines.
- Recommended to use as framework.
- W3C.

The Four Principles of Accessibility

Perceivable

The content must be available to users via sight, hearing, and/or touch.

Understandable

The content must be readable and predictable, with clear labels and instructions.



Operable

The product must be keyboard-accessible, navigable, and compatible with different input methods.

Robust

The product must work with a variety of assistive technologies, browsers, and devices.

Source:

<https://www.w3.org/TR/UNDERSTANDING-WCAG20/intro.html>

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Compliance level

- A – Must have
- AA – Should have
- AAA – Great to have

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WCAG

2.1.AA

- 4 principles (POUR).
- 50 different success criteria.

1.	Perceivable
1.1	Text Alternatives
1.1.1	Non-text Content
1.2	Time-based Media
1.2.1	Audio-only and Video-only (Prerecorded)
1.2.2	Captions (Prerecorded)
1.2.3	Audio Description or Media Alternative (Prerecorded)
1.2.4	Captions (Live)
1.2.5	Audio Description (Prerecorded)
1.2.6	Sign Language (Prerecorded)
1.2.7	Extended Audio Description (Prerecorded)
1.2.8	Media Alternative (Prerecorded)
1.2.9	Audio-only (Live)
1.3	Adaptable
1.3.1	Info and Relationships
1.3.2	Meaningful Sequence
1.3.3	Sensory Characteristics
1.3.4	Orientation
1.3.5	Identify Input Purpose
1.3.6	Identify Purpose
1.4	Distinguishable
1.4.1	Use of Color
1.4.2	Audio Control
1.4.3	Contrast (Minimum)
1.4.4	Resize Text
1.4.5	Images of Text
1.4.6	Contrast (Enhanced)
1.4.7	Low or No Background Audio
1.4.8	Visual Presentation
1.4.9	Images of Text (No Exception)
1.4.10	Reflow
1.4.11	Non-text Contrast
1.4.12	Text Spacing
1.4.13	Content on Hover or Focus

2.	Operable
2.1	Keyboard Accessible
2.1.1	Keyboard
2.1.2	No Keyboard Trap
2.1.3	Keyboard (No Exception)
2.1.4	Character Key Shortcuts
2.2	Enough Time
2.2.1	Timing Adjustable
2.2.2	Pause, Stop, Hide
2.2.3	No Timing
2.2.4	Interruptions
2.2.5	Re-authenticating
2.2.6	Timeouts
2.3	Seizures and Physical Reactions
2.3.1	Three Flashes or Below Threshold
2.3.2	Three Flashes
2.3.3	Animation from Interactions
2.4	Navigable
2.4.1	Bypass Blocks
2.4.2	Page Titled
2.4.3	Focus Order
2.4.4	Link Purpose (In Context)
2.4.5	Multiple Ways
2.4.6	Headings and Labels
2.4.7	Focus Visible
2.4.8	Location
2.4.9	Link Purpose (Link Only)
2.4.10	Section Headings
2.5	Input Modalities
2.5.1	Pointer Gestures
2.5.2	Pointer Cancellation
2.5.3	Label in Name
2.5.4	Motion Actuation
2.5.5	Target Size
2.5.6	Concurrent Input Mechanisms

3.	Understandable
3.1	Readable
3.1.1	Language of Page
3.1.2	Language of Parts
3.1.3	Unusual Words
3.1.4	Abbreviations
3.1.5	Reading Level
3.1.6	Pronunciation
3.2	Predictable
3.2.1	On Focus
3.2.2	On Input
3.2.3	Consistent Navigation
3.2.4	Consistent Identification
3.2.5	Change on Request
3.3	Input Assistance
3.3.1	Error Identification
3.3.2	Labels or Instructions
3.3.3	Error Suggestion
3.3.4	Error Prevention (Legal, Financial, Data)
3.3.5	Help
3.3.6	Error Prevention (All)
4.	Robust
4.1	Compatible
4.1.1	Parsing
4.1.2	Name, Role, Value
4.1.3	Status Messages

WebAIM Million Report 2024

56.8 errors per homepage



WebAIM Million Report 2024

Home pages with most common WCAG 2 failures

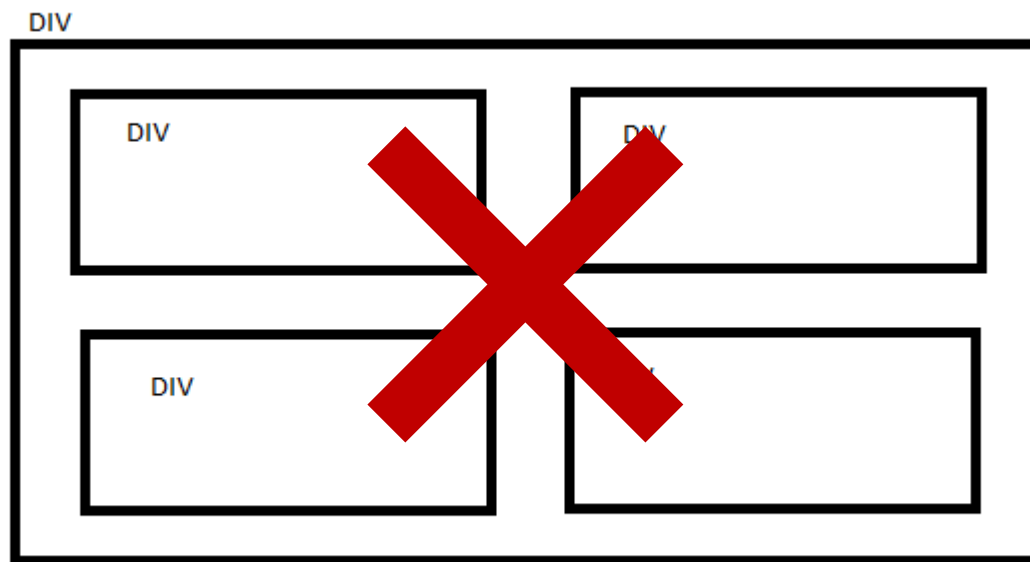
WCAG Failure Type	% of home pages
Low contrast text	81.0%
Missing alternative text for images	54.5%
Missing form input labels	48.6%
Empty links	44.6%
Empty buttons	28.2%
Missing document language	17.1%

96.4% of all errors detected fall into these six categories.
These most common errors have been the same for the last **5 years**.

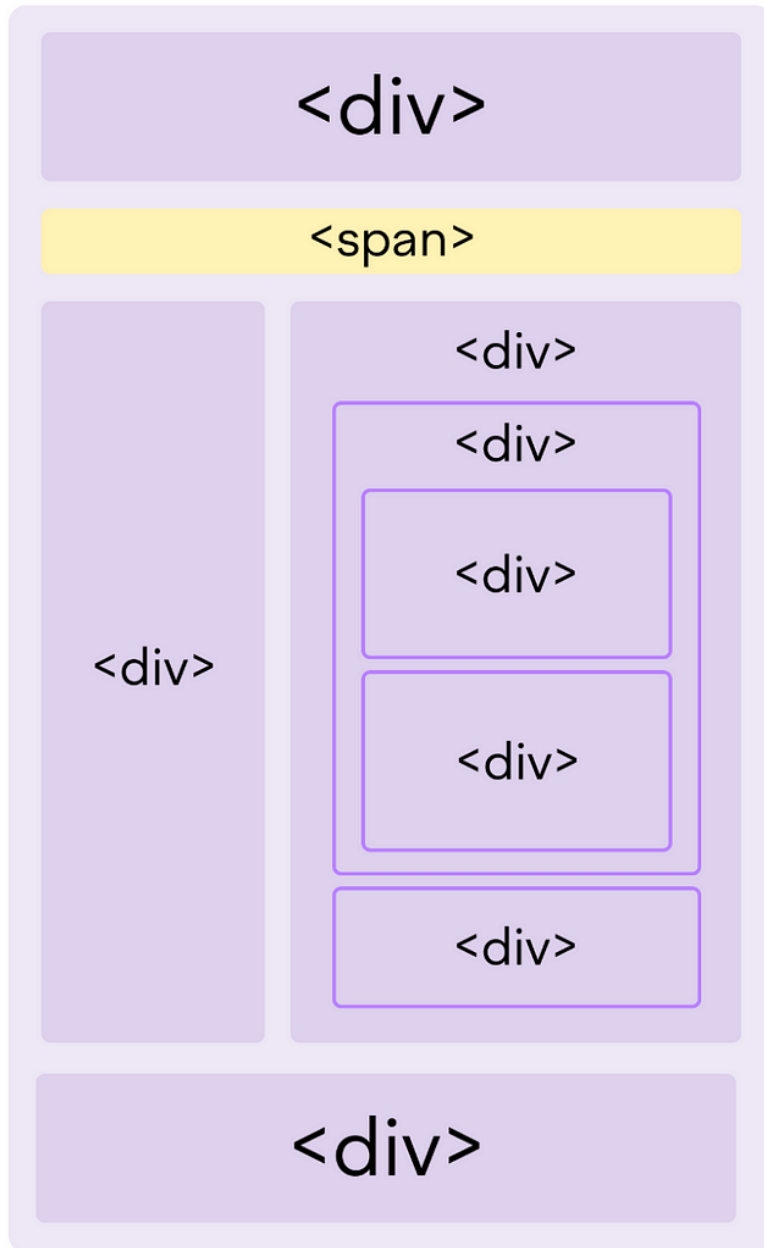
How to discover your own issues

- Research by a panel.
- Audit by an external.
- Doing it yourself!

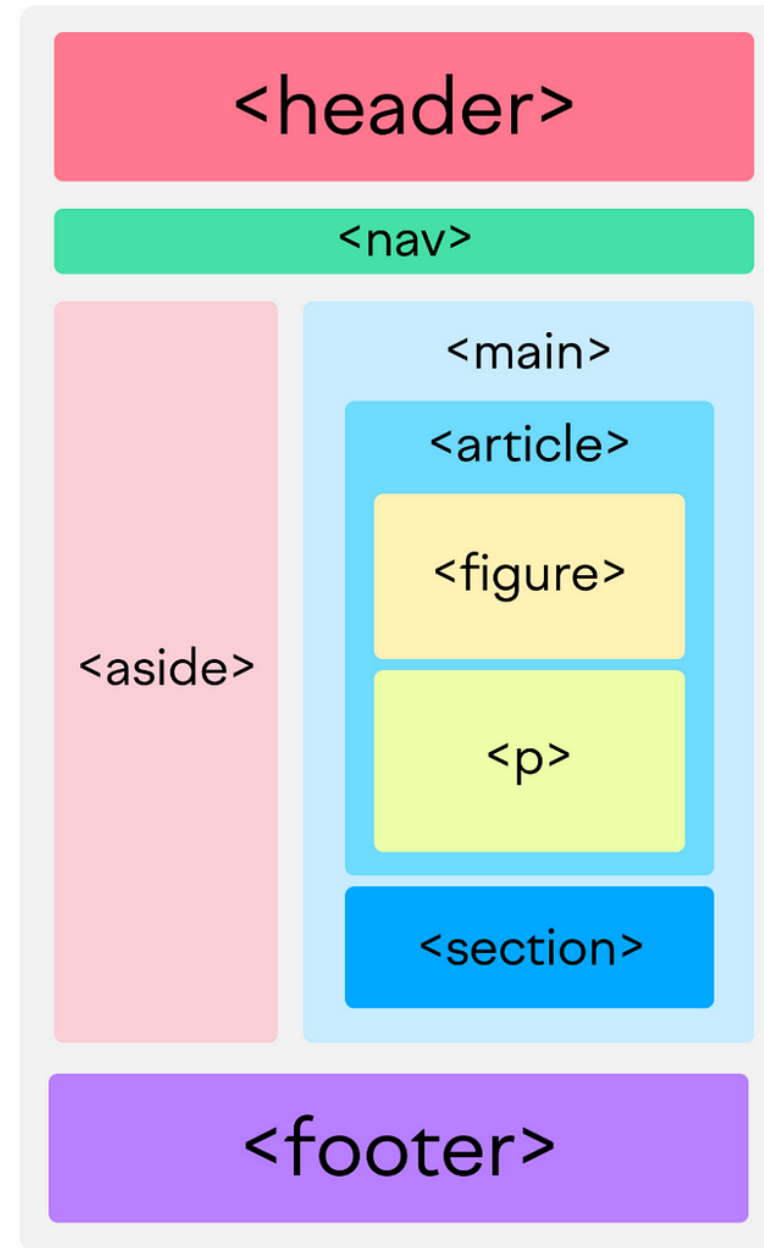
• + Semantic HTML



Non-Semantic HTML



Semantic HTML



Accessibility

Web accessibility (also known as a11y) refers to the practice of creating websites that can be used by anyone — be that a person with a disability, a slow connection, outdated or broken hardware or simply someone in an unfavorable environment. For example, adding subtitles to a video would help both your deaf and hard-of-hearing users and your users who are in a loud environment and can't hear their phone. Similarly, making sure your text isn't too low contrast will help both your low-vision users and your users who are trying to use their phone in bright sunlight.

Ready to start but aren't sure where?

Checkout the [Planning and managing web accessibility guide](#) provided by [World Wide Web Consortium \(W3C\)](#)

vuejs.org/guide/best-practices/accessibility



Keyboard + Screen reader



Screen readers



MacOS: VoiceOver



Windows: NVDA

Browser plugins



Wave



Axe



Lighthouse

Testing



Jest
AXE



Vitest-AXE

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◦ • Look at some code



Resources

- Law description EU (<https://shorturl.at/cqGCj>)
- WCAG 2.1 document (<https://w3.org/TR/WCAG21/>)
- Microsoft Inclusive Design (<https://inclusive.microsoft.design/>)
- NVDA (<https://www.nvaccess.org>)
- WebAIM Million report (<https://webaim.org/projects/million/>)

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