

HTML5 VALIDATION

WITH HTML-VVALIDATE

FOSDEM 2021

David Sveningsson

TALK OUTLINE

- Why does HTML validation matter?
- What is HTML-Validate and how is it used?
- What about SPA, custom elements and js-frameworks?

WHY DOES HTML VALIDATION MATTER?

Different answers for different stakeholders.

WHY DOES HTML VALIDATION MATTER?

END USERS

- Consistent behaviour across devices
- Consistent behaviour across updates
- Accessibility

WHY DOES HTML VALIDATION MATTER?

MACHINES

Source code:

```
1 <div>
2   <p>
3     Contact me at:
4     <address>
5       Fred Flintstone
6       345 Cave Stone Road
7     </address>
8   </p>
9 </div>
```

Browser:

```
1 <div>
2   <p>
3     Contact me at:
4   </p>
5   <address>
6     Fred Flintstone
7     345 Cave Stone Road
8   </address>
9   <p></p>
10 </div>
```

A `p` element's end tag can be omitted if the `p` element is immediately followed by an `address`, [...] element

A p element's end tag can be omitted if the p element is immediately followed by an address, [...] element, or if there is no more content in the parent element and the parent element is an HTML element that is not an a, [...] element.

Legal:

```
<div>  
  <p>Lorem ipsum  
</div>
```

Illegal:

```
<a>  
  <p>Lorem ipsum  
</a>
```


4.5.10 The ruby element

Content model: See prose.

WHY DOES HTML VALIDATION MATTER?

MACHINES

- Eliminates guesswork
- Better compatibility between browsers
- Easier for search engines
- Easier for accessibility tools

WHY DOES HTML VALIDATION MATTER?

BUSINESS

- Future proofing
- Stability
- Less bugs

WHY DOES HTML VALIDATION MATTER?

DEVELOPERS

- Markup can be confusing or misleading
- Technically valid code is often not best practice
- Prevents using obsolete or deprecated techniques
- Debugging

```
<p class="foo" class="bar"></p>
```

If there is already an attribute on the token with the exact same name, then this is a duplicate-attribute parse error and the new attribute must be removed from the token.

VALIDATING HTML

VALIDATING HTML

W3C MARKUP VALIDATION SERVICE

- Official
- Online
- Documents only
- No best practices
- Only rudimentary WAI-ARIA
- Only rudimentary A17Y

VALIDATING HTML

OTHERS TOOLS

- Too many to name
- Two categories:
 - String based
 - Virtual DOM such as JSDOM

HTML-VVALIDATE

HTML-VVALIDATE

- Offline
- Strict
- Non-forgiving
- Parse fragments
- Extendable and data-driven
- Supports frameworks

HTML-VALIDATE

DESIGN GOALS

- HTML5 only
- No unnecessary dependencies
- Non-opiniated

HTML-VVALIDATE

USAGE

```
npm install html-validate  
html-validate my-file.html
```

HTML-VVALIDATE

FRAMEWORKS

```
<template>  
  <div>  
      
  </div>  
</template>
```

W3C Markup Validation Service:

Error: Element img is missing required attribute src.

Error: Attribute :src not allowed on element img at this point.

HTML-VVALIDATE

FRAMEWORKS

```
<template>
  <div>
    
  </div>
</template>
```

```
1 {
2   "extends": [
3     "html-validate:recommended"
4   ],
5   "elements": ["html5"]
6 }
```



error: is missing required "src" attribute

```
1 | <template>
2 |   <div>
> 3 |     
   |         ^^^
4 |   </div>
5 | </template>
6 |
```


HTML-VALIDATE

FRAMEWORKS

- HTML-Validate core does not understand frameworks.
- A plugin is needed to handle frameworks.

In this case `html-validate-vue` can be used.

HTML-VVALIDATE

FRAMEWORKS

```
<template>
  <div>
    
  </div>
</template>
```

```
1  {
2    "extends": [
3      "html-validate:recommended",
4 +   "html-validate-vue:recommended"
5    ],
6    "elements": ["html5"],
7 +   "plugins": ["html-validate-vue"]
8  }
```

No errors

HTML-VALIDATE

FRAMEWORKS

- Does not yet support branching in server-rendered code, e.g. ejs, jinja2 etc.

HTML-VVALIDATE

CUSTOM ELEMENTS

```
1  {
2    "extends": [
3      "html-validate:recommended",
4    ],
5    - "elements": ["html5"],
6    + "elements": ["html5", "./elements.json"]
7  }
```

HTML-VVALIDATE

INTEGRATIONS

- VSCode
- Jest
- Cypress

HTML-VVALIDATE

PR'S WELCOME

- More framework plugins
- More integrations with tooling
- Webpack/Browser support (config overhaul)
- New rules
- Documentation

HTML-VALIDATE

QUESTIONS?

ext@sidvind.com

<https://html-validate.org/>

<https://gitlab.com/html-validate>