

Create your first Web Component

Components as a **mental model** for UI



Custom Elements

Custom Elements

```

<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Web Components</title>
  </head>
  <body>
    <cool-component></cool-component>

    <script>
      class CoolComponent extends HTMLElement {
        constructor() {
          super();
          const coolHeader = document.createElement('h2');
          coolHeader.textContent = 'I am so cool that I am cool.'
          this.appendChild(coolHeader);
        }
      }

      customElements.define('cool-component', CoolComponent);
    </script>
  </body>
</html>

```

Custom Elements : Lifecycle Methods

```

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```

connectedCallback

disconnectedCallback

attributesChangedCallback

Custom Elements : Shadow DOM


```
<basic-product name="Apple iPhone" image="https://uploa
▼ #shadow-root (open)
  ▶ <style>...</style>
  ▶ <div class="basic-product">...</div> flex
  ▶ <div slot="description">...</div>
```

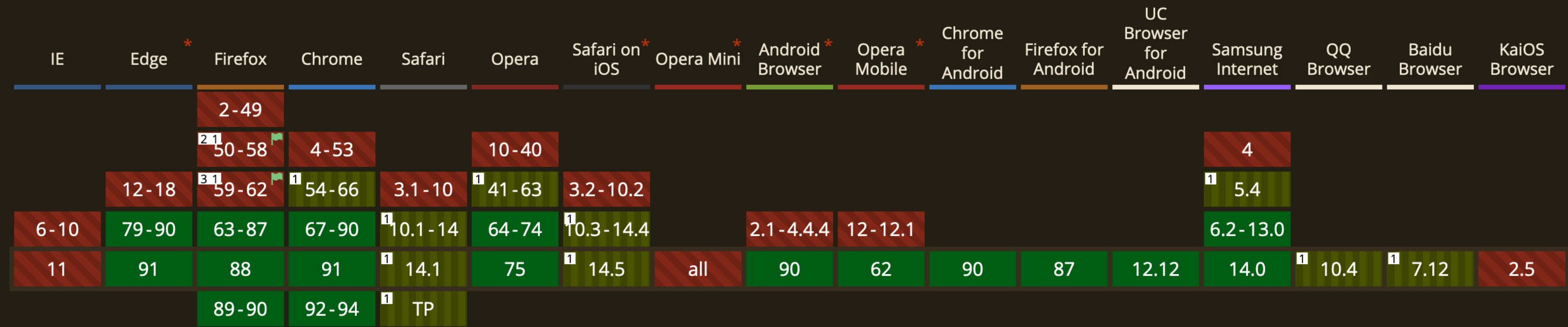
Custom Elements : **HTML Templates & Slots**

Custom Elements (V1) - LS

Usage % of all users Global 76.34% + 17.91% = 94.24%

One of the key features of the Web Components system, custom elements allow new HTML tags to be defined.

Current aligned Usage relative Date relative Filtered All 



Notes Test on a real browser Known issues (0) Resources (11) Feedback

- ¹ Supports "Autonomous custom elements" but not "Customized built-in elements" see [WebKit bug 182671](#).
- ² Enabled through the `dom.webcomponents.enabled` preference in `about:config`.
- ³ Enabled through the `dom.webcomponents.customelements.enabled` preference in `about:config`.

HTML templates

- LS

Usage

% of

all users

?

Global

96.21% + 0.37% = 96.58%

Method of declaring a portion of reusable markup that is parsed but not rendered until cloned.

Current aligned

Usage relative

Date relative

Filtered

All

IE	Edge	Firefox	Chrome	Safari	Opera	Safari on iOS	Opera Mini	Android Browser	Opera Mobile	Chrome for Android	Firefox for Android	UC Browser for Android	Samsung Internet	QQ Browser	Baidu Browser	KaiOS Browser
				3.1 - 6												
				6.1												
	12		4 - 25	7	10 - 12.1	3.2 - 7.1										
	13 - 14	2 - 21	26 - 34	7.1 - 8	15 - 21	8 - 8.4		2.1 - 4.3								
6 - 10	15 - 90	22 - 87	35 - 90	9 - 14	22 - 74	9 - 14.4		4.4 - 4.4.4	12 - 12.1				4 - 13.0			
11	91	88	91	14.1	75	14.5	all	90	62	90	87	12.12	14.0	10.4	7.12	2.5
		89 - 90	92 - 94	TP												

Notes

Test on a real browser

Known issues (1)

Resources (8)

Feedback

1 Does not support Document.importNode on templates, nested templates or elements that contain templates.

2 Does not support Node.cloneNode on templates, nested templates or elements that contain templates.

3 Safari 6.2 has the same partial support as Safari 7.1.

Shadow DOM (V1) - WD

Usage

% of all users

Global94.14% + 0.23% = 94.36%

Method of establishing and maintaining functional boundaries between DOM trees and how these trees interact with each other within a document, thus enabling better functional encapsulation within the DOM & CSS.

Current alignedUsage relativeDate relativeFilteredAll

IE	Edge*	Firefox	Chrome	Safari	Opera	Safari on iOS*	Opera Mini*	Android Browser*	Opera Mobile*	Chrome for Android	Firefox for Android	UC Browser for Android	Samsung Internet	QQ Browser	Baidu Browser	KaiOS Browser
		2-57														
		² 58				3.2-9.3							4			
	12-18	³ 59-62	4-52	3.1-9.1	10-39	¹ 10-10.3							5.4			
6-10	79-90	63-87	53-90	10-14	40-74	11-14.4		2.1-4.4.4	12-12.1				6.2-13.0			
11	91	88	91	14.1	75	14.5	all	90	62	90	87	12.12	14.0	10.4	7.12	2.5
		89-90	92-94	TP												

NotesTest on a real browserKnown issues (0)Resources (8)Feedback

¹ Certain CSS selectors do not work (:host > .local-child) and styling slotted content (::slotted) is buggy.

² Enabled through the dom.webcomponents.enabled preference in about:config.

³ Enabled through the dom.webcomponents.shadowdom.enabled preference in about:config.