

 免費電子書

學習

# Web Component

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#web-

component

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# 1: Web

Web

Web Components Web Web HTML JavaScript CSS Web

Web Components

- 
- HTML
- DOM
- HTML

◦

HTML	<a href="#">W3C HTML5</a>	20141028
	<a href="#">W3C WHATWG HTML DOM</a>	20161013
DOM	<a href="#">W3C WHATWG HTML DOM</a>	20171116
HTML	<a href="#">W3C</a>	2016225

## Examples

<template>

- 
- 
- 
- 
- 
- 
- ...

`customElements.define()` Shadow DOM `attachShadow()` HTML Imports `<link rel="import">` Chrome Opera

## Polyfills

polyfill

- [WebReflection Webcomponents.org](#)
- [Shadow DOM Webcomponents.org](#)
- [Neovov](#)
- [HTML Webcomponents.org](#)

## HTML - Hello World

<template>HTML◦

```
<template id="Template1">
  Hello, World !
</template>

<div id="Target1"></div>

<script>
  Target1.appendChild( Template1.content.cloneNode( true ) )
</script>
```

#Target1 div◦

## - Hello World

<hello-world>HTML“HelloWorld”

```
<script>
//define a class extending HTMLElement
class HelloWorld extends HTMLElement {
  connectedCallback () {
    this.innerHTML = 'Hello, World!'
  }
}

//register the new custom element
customElements.define( 'hello-world', HelloWorld )
</script>

<!-- make use the custom element -->
<hello-world></hello-world>
```

## Shadow DOM - Hello World

DOM“HelloWorld”div◦

```
<div id="Div1">intial content</div>

<script>
  var shadow = Div1.attachShadow( { mode: 'open' } )
  shadow.innerHTML = "Hello, World!"
</script>
```

## HTML - Hello World

HTMLdiv“HelloWorld”DOM◦

*hello.html*

```
<script>
  var div = document.createElement( 'div' )
  div.innerHTML = 'Hello, World!'
  document.body.appendChild( div )
</script>
```

## *index.html*

```
<html>
  <link rel="import" href="hello.html">
```

## Hello World

### Shadow DOMHTML“HelloWorld” HTML。

hello-world.html

```
<!-- 1. Define the template -->
<template>
  Hello, World!
</template>

<script>
  var template = document.currentScript.ownerDocument.querySelector( 'template' )

  //2. Define the custom element

  customElements.define( 'hello-world', class extends HTMLElement
  {
    constructor()
    {
      //3. Create a Shadow DOM
      var sh = this.attachShadow( { mode: 'open' } )
      sh.appendChild( document.importNode( template.content, true ) )
    }
  } )
</script>
```

index.html

```
<html>
<head>
  <!-- 4. Import the HTML component -->
  <link rel="import" href="hello-world.html">
</head>
<body>
  <hello-world></hello-world>
</body>
</html>
```

Web <https://riptutorial.com/zh-TW/web-component/topic/8239/web>

## 2: Web

◦

### Examples

#### WebpackJest

Facebook [Jest](#) JavaScript React ◦ Jest "" ◦

GitHub [web-components-webpack-es6-boilerplate](#)

Jest [jsdom](#) NodeJS ◦ [webpack](#)

```
-src
  --client
  --server
-webpack
  --config.js
package.json
```

server render ◦ **Webpack** config.js

```
resolve: {
  modules: ["node_modules"],
  alias: {
    client: path.join(__dirname, "../src/client"),
    server: path.join(__dirname, "../src/server")
  },
  extensions: [".js", ".json", ".scss"]
},
```

#### JestWebpack ◦

```
module.exports = {
  setupTestFrameworkScriptFile: "<rootDir>/bin/jest.js",
  mapCoverage: true,
  moduleFileExtensions: ["js", "scss", "html"],
  moduleDirectories: ["node_modules"],
  moduleNameMapper: {
    "src/(.*)$": "<rootDir>/src/$1"
  },
  transform: {
    "^.+\\. (js|html|scss)$": "<rootDir>/bin/preprocessor.js"
  },
  testMatch: ["<rootDir>/test/**/?(*.) (spec|test).js"],
  testPathIgnorePatterns: ["<rootDir>/ (node_modules|bin|build)"]
};
```

jest **key** package.json jest.config.js jest.config.js ◦

html◦ preprocessorjsbabel-jest◦

setupTestFrameworkScriptFilecustom elements jsdomjsdom◦ preprocessor.js

```
const babelJest = require("babel-jest");

const STYLE_URLS_REGEX = /styles:\s*\[\s*((?:'|").*\s*(?:'|").*\s*.*\]/g;
const ESCAPE_TEMPLATE_REGEX = /(\${|\`)/g;

module.exports.process = (src, path, config) => {
  if (path.endsWith(".html")) {
    src = src.replace(ESCAPE_TEMPLATE_REGEX, "\\$1");
    src = "module.exports=`" + src + "`";
  }
  src = src.replace(STYLE_URLS_REGEX, "styles: []");

  return babelJest.process(src, path, config);
};
```

/require('template.html')◦ babel◦

web components polyfills◦ jsdom◦ setupTestFrameworkScriptFile jest.js

```
require("document-register-element/pony")(window);
```

jsdomweb components **API**◦

```
-bin
  --jest.js
  --preprocessor.js
-src
  --client
  --server
-webpack
  --config.js
-test
package.json
jest.config.js
```

testyarn run jest --no-cache --config \$(node jest.config.js) yarn run jest --no-cache --config \$(node jest.config.js)◦

Web <https://riptutorial.com/zh-TW/web-component/topic/10057/web>



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