



UNLOCKING THE POWER OF SHADOW DOM

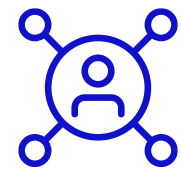
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Unlocking the Power of Shadow DOM

What We Will Cover



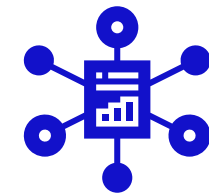
What is Shadow Dom ?



Types of Shadow Dom



Popular applications that use Shadow DOM



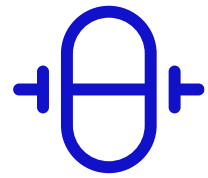
How to use Shadow Dom in popular web dev frameworks



Hands-On demo on Shadow Dom

Unlocking the Power of Shadow DOM

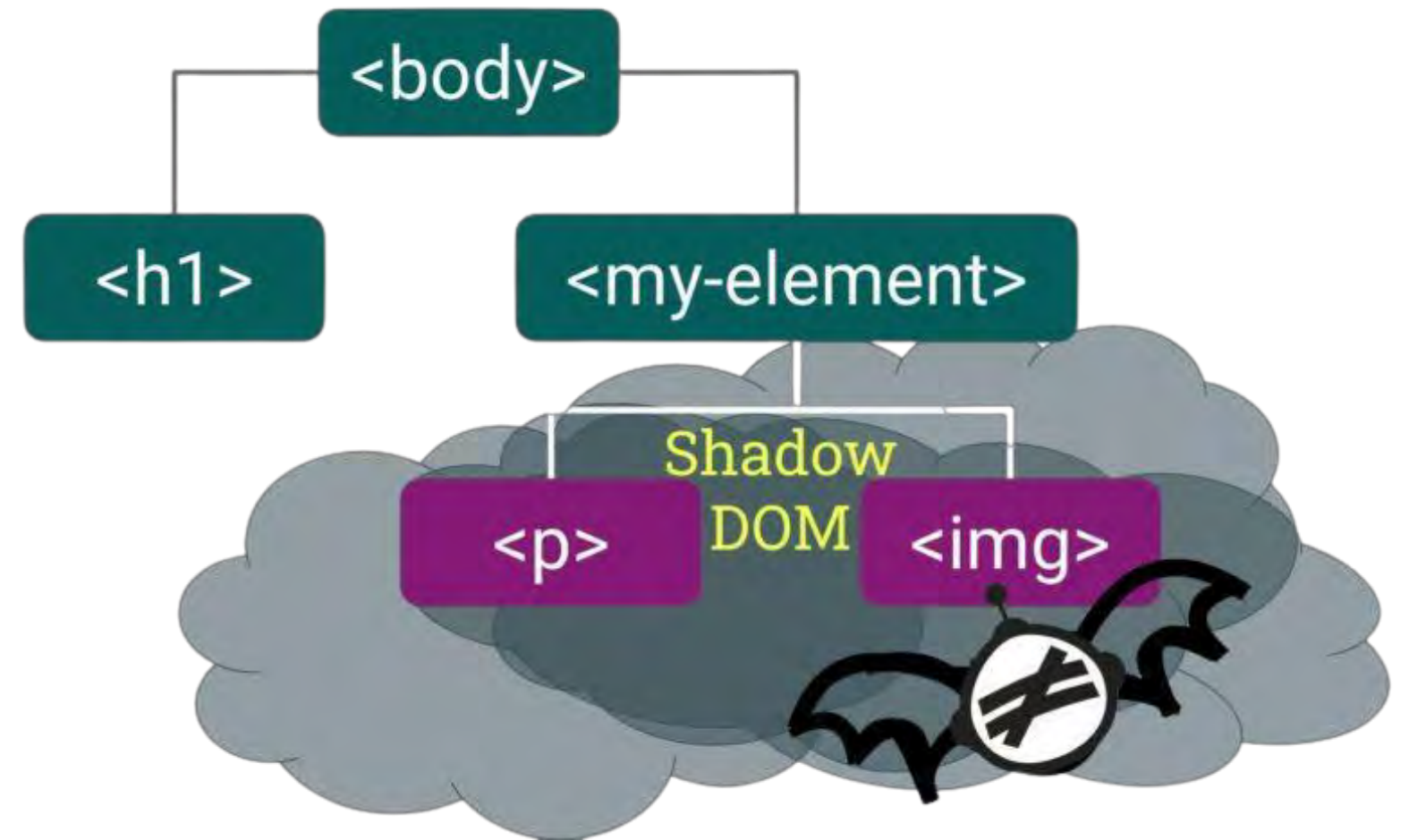
What is Shadow DOM



Encapsulate your web components and styles



Immune to the global scope



Unlocking the Power of Shadow DOM

Types Of Shadow DOM

```
1  const shadowRoot = element.attachShadow({ mode: 'open' });  
2
```

Open Shadow DOM

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Types Of Shadow DOM

```
1  const shadowRoot = element.attachShadow({ mode: 'closed' });  
2
```

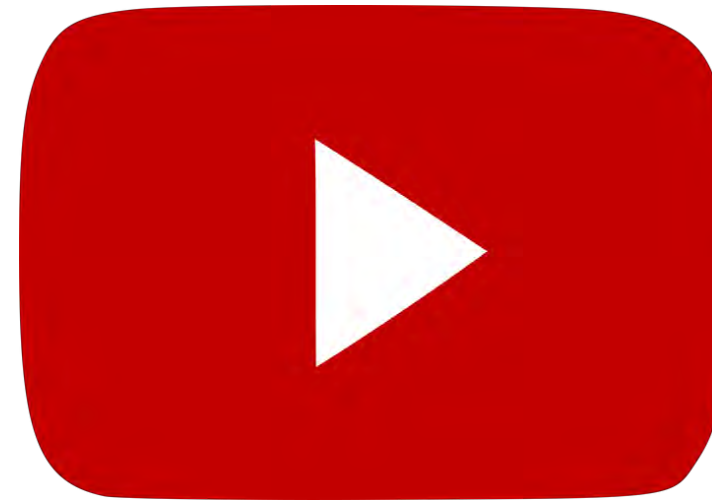
Closed Shadow DOM

Unlocking the Power of Shadow DOM

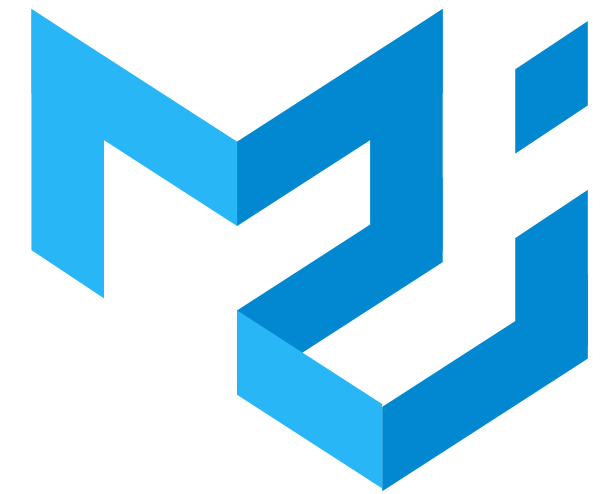
Popular Applications Using Shadow DOM



Google Maps



Youtube



Material UI

And many more.....

Unlocking the Power of Shadow DOM

Usage In Popular Frameworks

Shadow DOM

React Js

```
1 import React, { Component } from 'react';
2 import createShadowRoot from 'react-shadow';
3
4 class ShadowDOMComponent extends Component {
5   constructor(props) {
6     super(props);
7
8     // Create a reference to the shadow root element
9     this.shadowRef = React.createRef();
10  }
11
12  componentDidMount() {
13    // Attach the shadow DOM to the shadowRef
14    const shadowRoot = this.shadowRef.current.attachShadow({ mode
: 'open' });
15
16    // Define the HTML and styles for the shadow DOM
17    shadowRoot.innerHTML = `
18      <style>
19        /* Add your custom styles here */
20        h1 { color: blue; }
21      </style>
22      <h1>Hello from Shadow DOM</h1>
23    `;
24  }
25
26  render() {
27    return (
28      <div>
29        <h1>Hello from the main DOM</h1>
30        /* Use the shadowRef to render the shadow DOM */
31        <div ref={this.shadowRef} />
32      </div>
33    );
34  }
35 }
36
37 export default ShadowDOMComponent;
38
```

Unlocking the Power of Shadow DOM

Usage In Popular Frameworks

Shadow DOM

Angular

```
1 import { Component } from '@angular/core';
2
3 @Component({
4   selector: 'app-shadow-dom-example',
5   template: `
6     <div>
7       <h1>Main DOM Content</h1>
8       <div id="shadow-root"></div>
9     </div>
10  `,
11  styles: [
12    `
13    h1 {
14      color: red;
15    }
16  `,
17  ],
18  encapsulation: ViewEncapsulation.ShadowDom,
19  // This line enables Shadow DOM
20 })
21 export class ShadowDOMExampleComponent {}
```

```
1 <div>
2   <h1>My Angular App</h1>
3   <app-shadow-dom-example></app-shadow-dom-example>
4 </div>
5
```


Unlocking the Power of Shadow DOM

Usage In Popular Frameworks

Shadow DOM

Web Component

```
1 // Define a custom element class
2 class MyComponent extends HTMLElement {
3   constructor() {
4     super();
5
6
7     // Create a Shadow DOM and attach it to the custom element
8     const shadowRoot = this.attachShadow({ mode:
9       'open' });
10
11    // Define the HTML and styles for the Shadow DOM
12    shadowRoot.innerHTML = `
13      <style>
14        /* Add your custom styles here */
15        h1 { color: blue; }
16      </style>
17      <h1>Hello from Shadow DOM</h1>
18    `;
19  }
20 }
21
22 // Define the custom element using the customElements API
23 customElements.define('my-component', MyComponent);
```

Now Comes The Fun Part
Hands-on Demo

Thank You



**Scan To Connect and
Access The Code**