

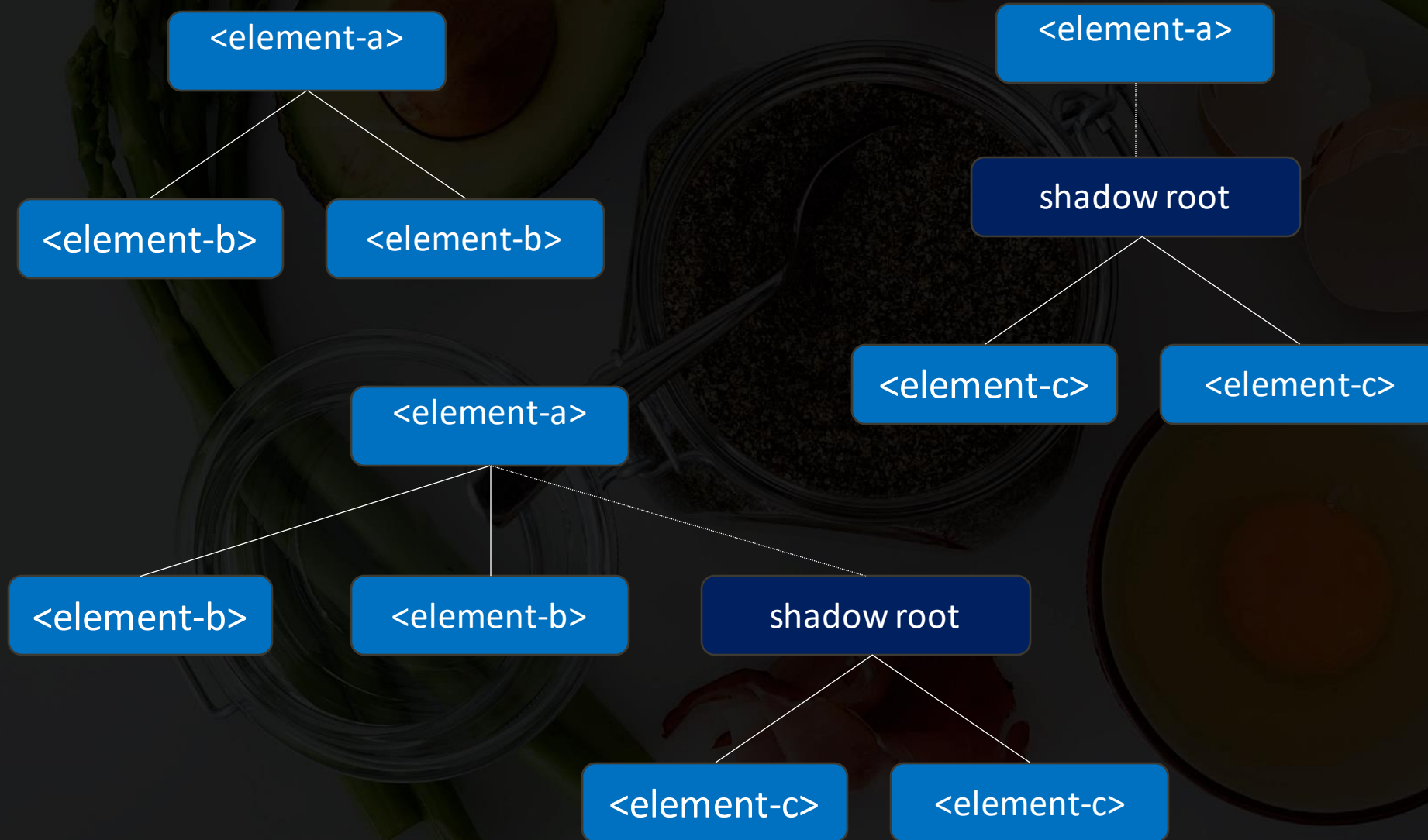
Web Components

Composition of Components

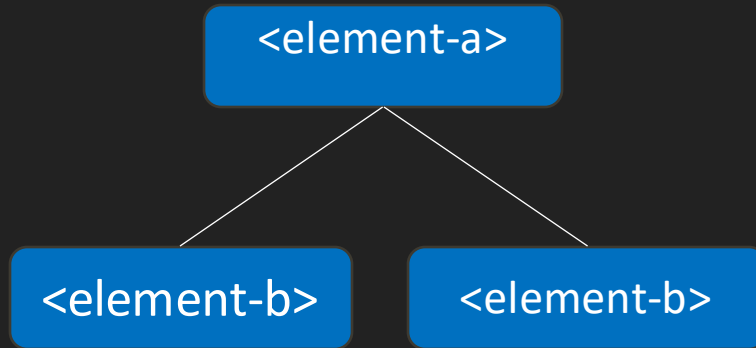


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Composition of Components



Normal nesting of elements



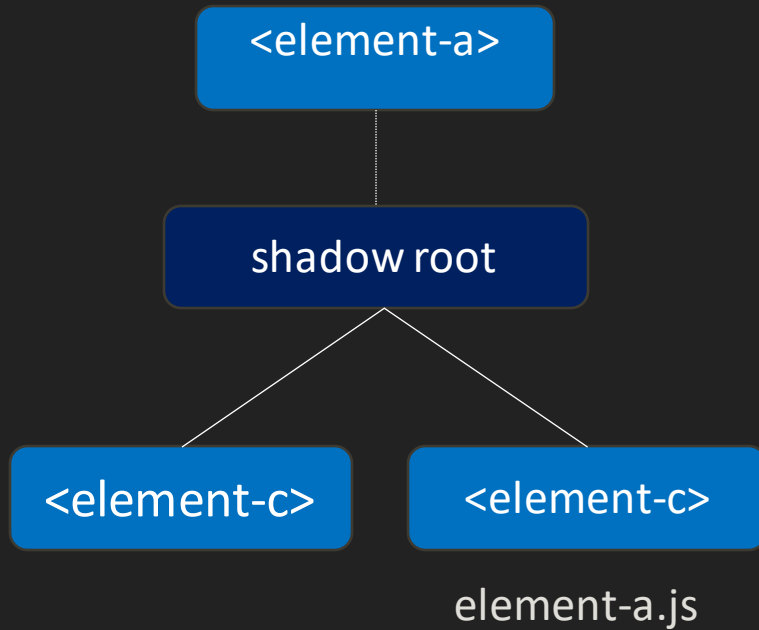
```
<element-a>                                index.html
  <element-b></element-b>
  <element-b></element-b>
</element-a>
```

- ✓ Replicates normal behavior of HTML
- ✓ You give control to the developer using both parent and child elements
- ✓ Placement in shadow-dom is decided with `<slot>`

element-a.js

```
this.#elements = this.querySelectorAll('element-a')
```

Nesting through the shadow dom



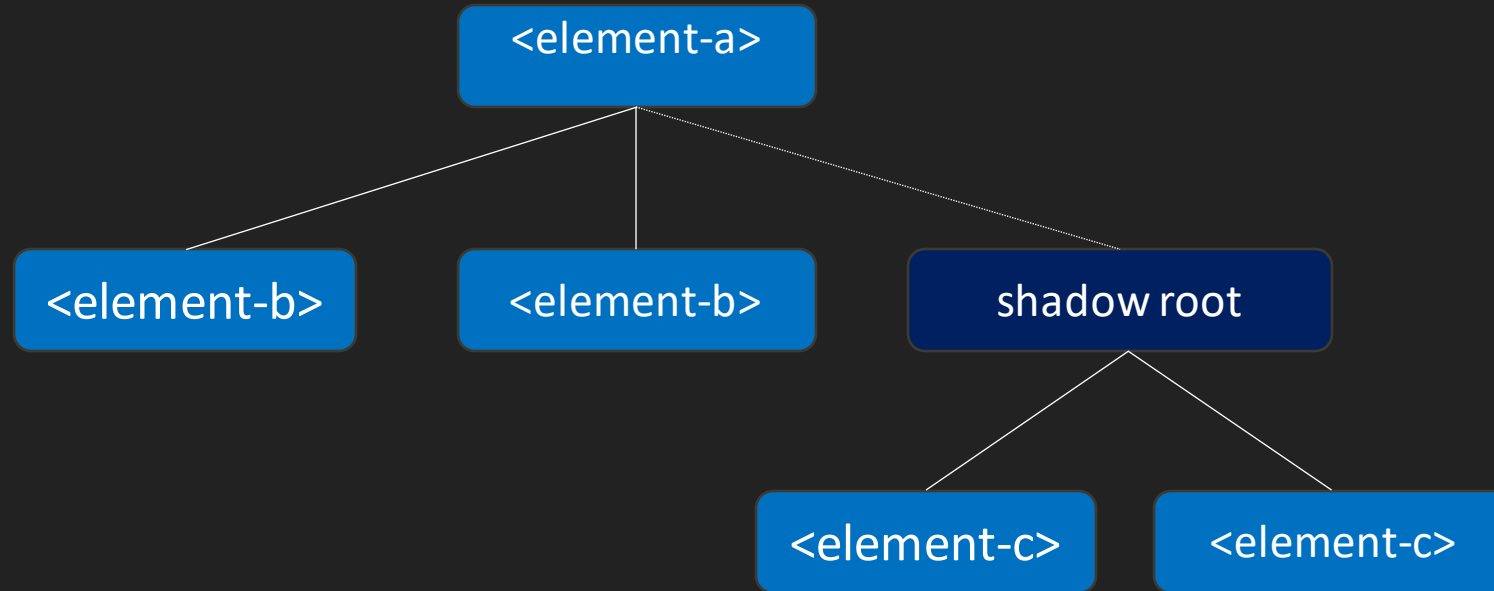
- ✓ Hides the child elements in the parent
- ✓ The developer using the parent element have no direct influence over the child elements

```
import '../element-b/'
```

```
template.innerHTML = `  
<element-b></element-b>  
<element-b></element-b>  
`
```

```
this.#elements = this.shadowRoot.querySelectorAll('element-b')
```

Combination



Mimic the build in elements

Try to mimic normal HTML elements



Configure through attributes

Use attribute to set primitive data types like, numbers, strings, booleans.

```
<my-component time="100"></my-component>
```

✓ `<my-component selected>`

✗ `<my-component selected="true">`

Encapsulate behavior inside of the component

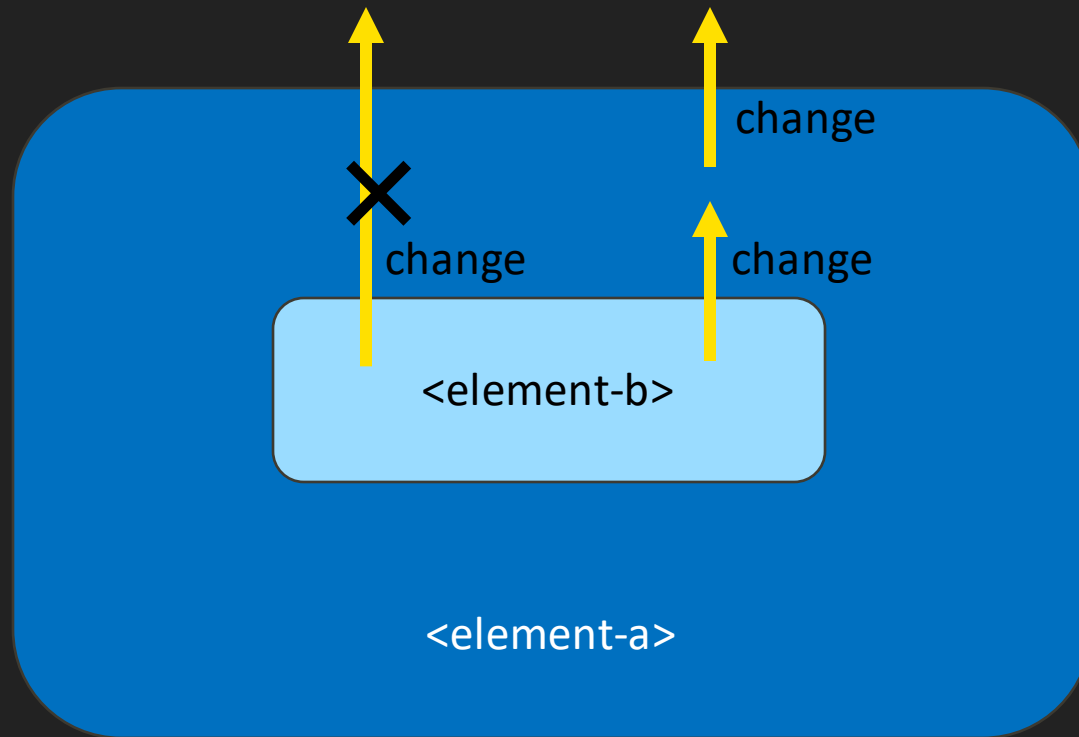


✗ `// Do not change the regular DOM from within your component!`
`document.querySelector(...`

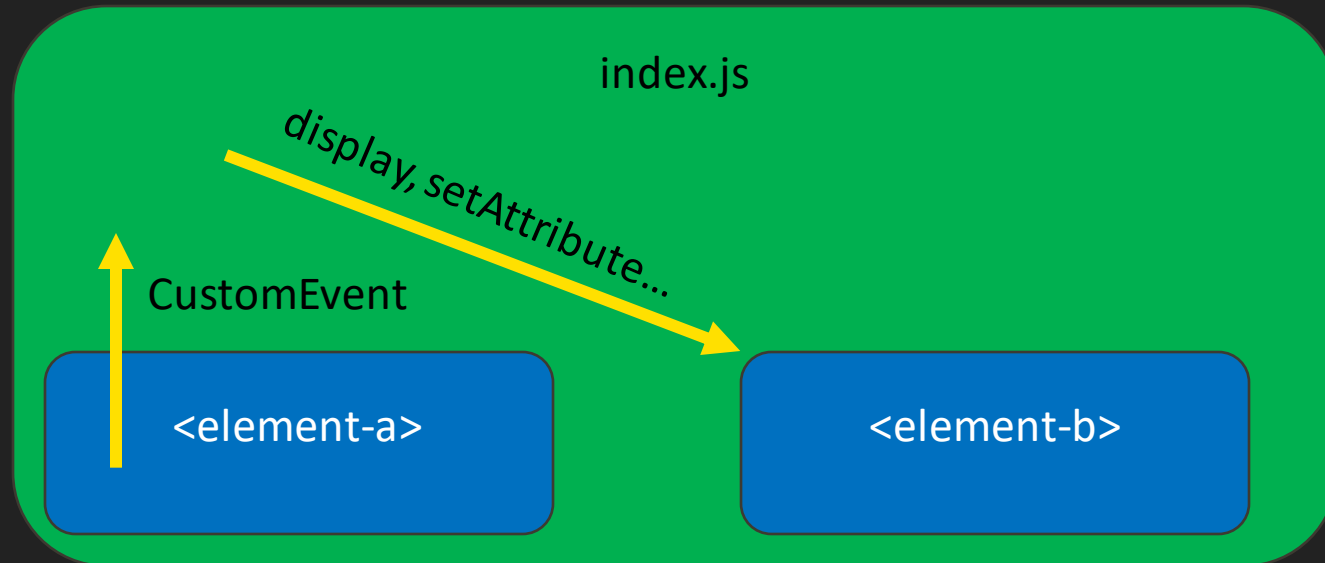
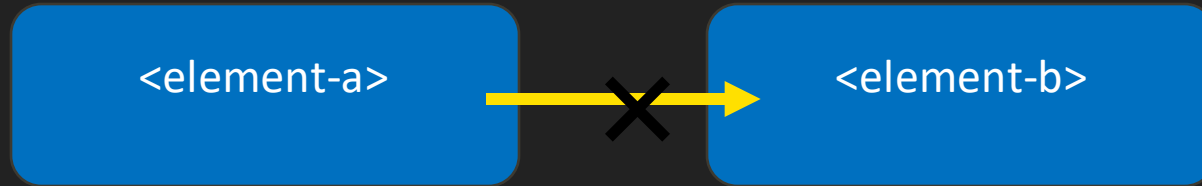
✓ `// Ok, as long as you only modify your shadow dom`
`const node = document.createElement('node')`
`this.shadowRoot.append(node)`

my-component

Do not “bubble” events



Orchestrating



Avoid throwing errors, fail silent

```
try {  
  const response = await window.fetch(`https://thewrongurl.com`)  
} catch (error) {  
  // Code to fail gracefully  
}
```

