

DOM Manipulation in JS

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Definition and Purpose



DOM Manipulation (or, Document Object Model) is how JavaScript changes and alters both HTML, and CSS.

It allows developers to quickly change large segments of HTML or CSS, depending on user input, or the user's device.

Key Terms

The most important methods are –

- `getElementById()` – gets an element based on its assigned ID
- `Element.textContent` – allows a developer to see/change text content in an element
- `Element.classList.add('new-style');` - allows a developer to assign a new class to an element

Examples

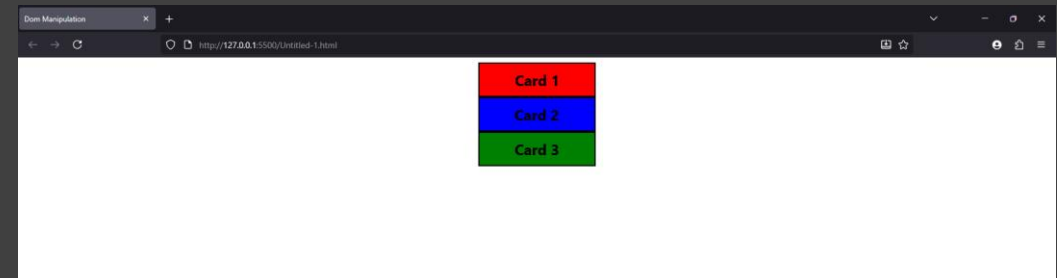
```
1  <!DOCTYPE html>
2  <html>
3  <head>
4    <title>Dom Manipulation</title>
5    <style>
6      .change {
7        font-size: 24px;
8        font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
9      }
10   </style>
11 </head>
12 <body>
13   <h1 id="change">temp text</h1>
14   <h1>temp text</h1>
15
16   <script>
17
18     change = document.getElementById("change")
19     change.textContent = "This helps change elements using JS."
20     change.classList.add('change');
21
22   </script>
23 </body>
24 </html>
```

Notice that there are two h1 elements, with the only difference being the assigned ID.

The script is placed BEFORE the elements. It is important to state elements before attempting to change them.

Applied Example

```
5 <style>
6   .card {
7     font-size: 24px;
8     font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
9     border: 2px solid black;
10    padding: 10px;
11    text-align: center;
12    max-width: 10%;
13    margin: auto;
14  }
15
16  .redColor {
17    background-color: red;
18  }
19
20  .blueColor {
21    background-color: blue;
22  }
23
24  .greenColor {
25    background-color: green;
26  }
27 </style>
28 </head>
29 <body>
30   <h1 id="card">temp text</h1>
31   <h1 id="card2">temp text</h1>
32   <h1 id="card3">temp text</h1>
33   <script>
34     card = document.getElementById("card")
35     card.textContent = "Card 1"
36     card.classList.add('card');
37     card.classList.add('redColor');
38
39     card = document.getElementById("card2")
40     card.textContent = "Card 2"
41     card.classList.add('card');
42     card.classList.add('blueColor');
43
44     card = document.getElementById("card3")
45     card.textContent = "Card 3"
46     card.classList.add('card');
47     card.classList.add('greenColor');
48   </script>
49 </body>
```



Common Mistakes / Tips

1. Always put scripts after elements.

Style

Element

Script

2. Assigning variables to elements before changing them.
3. Assigning one ID to multiple elements.

Importance

DOM Manipulation helps developers make large changes quickly, and helps create template for future use.



References

Classwork GitHub Repository (js04)