

# The DOM (Document Object Model)

## 1. What is the DOM?

The DOM is a tree structure representation of your HTML. JavaScript uses the DOM to change the style, content, and attributes of HTML elements effectively.

## 2. Selecting Elements

To change an element, you first need to find (select) it.

JavaScript

```
// Select by ID
const title = document.getElementById("main-title");

// Select by Class Name
const boxes = document.getElementsByClassName("box");

// Select by CSS Selector (Most powerful)
const btn = document.querySelector(".btn-primary");
```

## 3. Manipulation

Once selected, you can change the element.

**Changing Content:**

JavaScript

```
title.innerText = "New Title";
title.innerHTML = "<span>New HTML</span>";
```

## Changing Style:

### JavaScript

```
title.style.color = "red";  
title.style.fontSize = "50px";  
title.style.display = "none"; // Hides element
```

## 4. Events

Events are things that happen to HTML elements (like clicks, mouse movements, or key presses).

### JavaScript

```
const button = document.getElementById("myBtn");  
  
button.addEventListener("click", function() {  
  alert("Button was clicked!");  
  document.body.style.backgroundColor = "blue";  
});
```

- 

Common Events: `click`, `mouseover`, `mouseout`, `keydown`, `submit`.