DOM Manipulation in JS

Day - 3

GIRLSCRIPT EDUCATION OUTREACH PROGRAM

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So, what is DOM?

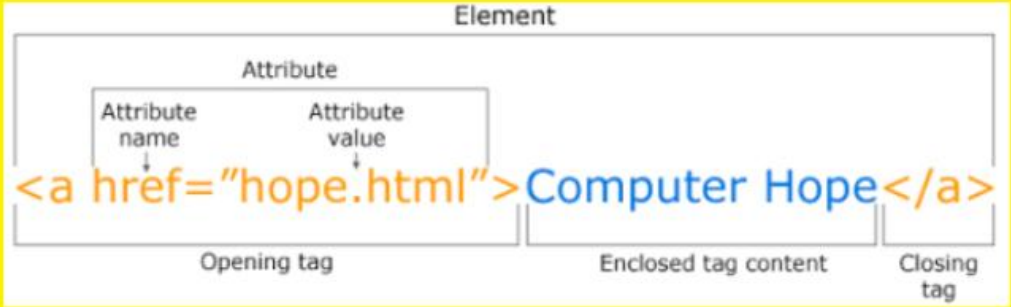
Document Object Model

What it does?

When a web page is loaded, the browser creates a Document Object Model of the page.

" The W3C Document Object Model (DOM) is a platform and language-neutral interface that allows programs and scripts to dynamically access and update the content, structure, and style of a document.

Anatomy of HTML tags



Anatomy of HTML tags

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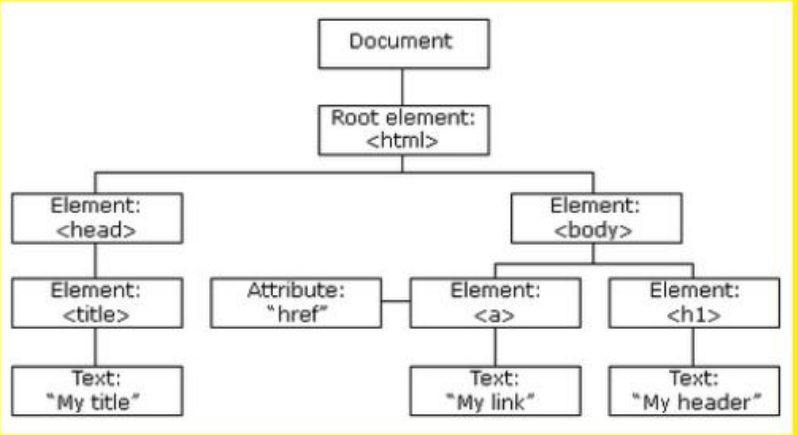
DOM Structure

The HTML DOM model is constructed as a tree of Objects:



What can be done with DOM?

- JavaScript can **change** all the **HTML elements** in the page
- JavaScript can **change** all the **HTML attributes** in the page
- JavaScript can **change** all the **CSS styles** in the page
- JavaScript can **remove** existing **HTML elements** and attributes
- JavaScript can **add** new **HTML elements** and attributes
- JavaScript can **react** to all existing **HTML events** in the page
- JavaScript can **create** new **HTML events** in the page

What does DOM do?

- The HTML elements as **objects**
- The **properties** of all HTML elements
- The **methods** to access all HTML elements
- The **events** for all HTML elements

In short,

The HTML DOM is a standard for how to get, change, add, or delete HTML elements.

```html
<html>
  <body>
    <p id="demo"></p>
    <script>
      document.getElementById("demo").innerHTML = "Hello World!";
    </script>
  </body>
</html>
```

getElementById is a method, while innerHTML is a property.

getElementById Method

The most common way to access an HTML element is to use the id of the element.
In the example above the getElementById method used id="demo" to find the element.

innerHTML Property

The easiest way to get the content of an element is by using the innerHTML property.
The innerHTML property is useful for getting or replacing the content of HTML elements.

Methods for

Finding HTML Elements

Method	Description
document.getElementById(id)	Find an element by element id
document.getElementsByTagName(name)	Find elements by tag name
document.getElementsByClassName(name)	Find elements by class name
document.querySelector(id / class)	Find by query
document.querySelectorAll(id / class)	Find all elements with the same query

Properties for

Changing HTML Elements

Property	Description
element.innerHTML = New html content	Change the inner HTML of an element
element.attribute = New value	Change the attribute value of an HTML element
element.style.property = New style	Find elements by class name

Methods for

Event handlers & Event Listener

Event Handler

- An event handler is a JavaScript function that runs when an event fires.
- Only one event at a time with one element.
- Example: onclick="changeText()"

Event Listener

- An event listener attaches a responsive interface to an element, which allows that particular element to wait and “listen” for the given event to fire.
- We can assign multiple events at the same time to the element.
- Example: addEventListener()

Method	Description
click	Fires when the mouse is pressed and released on an element
submit	Fires when a form is submitted
focus	Fires when an element (such as an input) receives focus
blur	Fires when an element loses focus
keypress	Fires continuously while a key is pressed

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Thank You!

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