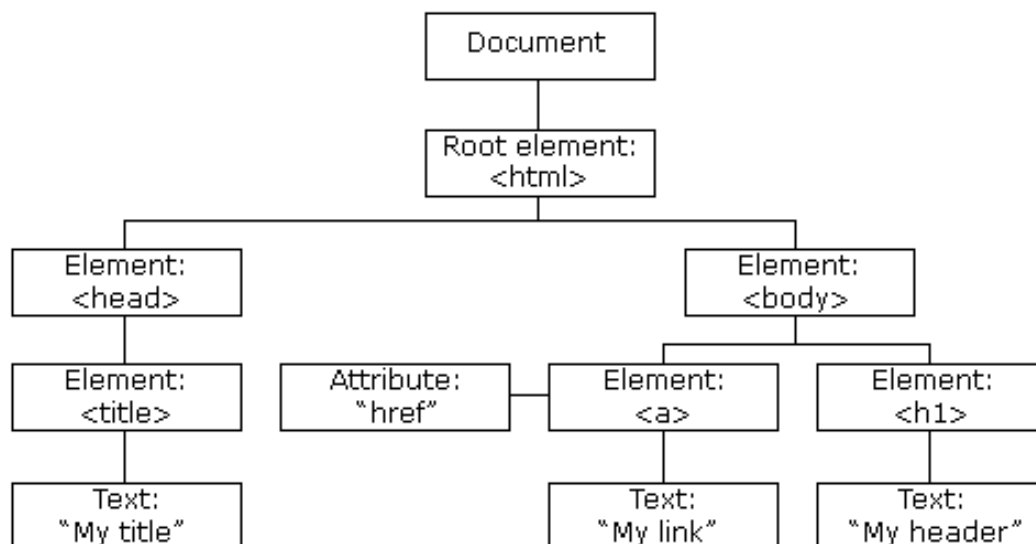# 8.1 The Document Object Model

dental clinic - answered by Maynard Arvin Villalobos

The HTML DOM (Document Object Model)

- With the **HTML DOM**, JavaScript can access and change all the elements of an HTML document.
- When a web page is loaded, the browser creates a Document Object Model of the page.
- The HTML DOM model is constructed as a tree of Objects:

- With the object model, JavaScript gets all the power it needs to create dynamic HTML:
  - JavaScript can add, change and/or remove all the HTML elements and attributes in the page.
  - JavaScript can change all the CSS styles in the page.

- JavaScript can create new HTML events in the page.
  - JavaScript can react to all existing HTML events in the page.
- The DOM is a W3C (World Wide Web Consortium) standard.
- The DOM defines a standard for accessing documents.

The DOM programming interface

- The HTML DOM can be accessed with JavaScript (and with other programming languages).
- In the DOM, all HTML elements are defined as objects.
- The programming interface is the properties and methods of each object.
  - A property is a value that you can get or set (like changing the content of an HTML element).
  - A method is an action you can do (like add or deleting an HTML element).

```
<html>
<body>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML = "Hello World!";
</script>

</body>
</html>
```

- In the example above, `getElementById` is a method, while `innerHTML` is a property.
- 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.
- 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.

Keyword(s)	Description	Sample code

`getElementById`	- Retrieves a single HTML element from a web page's document object model (DOM) based on its unique ID attribute	`<p id="my_para">This is some initial text.</p>`
		`<button onclick="changeText()">Change Text</button>`
		
		`<script>`
		`function changeText() {`
		`    let paragraph = document.getElementById("my_para");`
		
		`    paragraph.innerHTML = "Text has been changed!";`
		`}`
		`</script>`

`innerHTML`	- Allows you to access and	

	modify the HTML content within an element.	

DOM Syntax

OverAPI.com   Python   More »

Search

Resource

Online
Official Website
DOM Enlightenment

Download
W3C DOM in one page
XPath, CSS, DOM and Selenium: The Rosetta Stone [table .pdf]
XPath, CSS, DOM and Selenium: The Rosetta Stone [groups .pdf]

Related
CSS
DTD
HTML
Selenium
XHTML
XML
XML Schema
XPath
XSL
XSLT

DOM Events

Mouse Events
click
dblclick
mousedown
mousemove
mouseover
mouseout
mouseup

Keyboard Events
keydown
keypress
keyup

Frame Events
abort
error
load
resize
scroll
unload

Form Events
blur

HTML DOM

Elements Properties
accessKey
className
clientHeight
clientWidth
dir
id
innerHTML
lang
offsetHeight
offsetLeft
offsetParent
offsetTop
offsetWidth
scrollHeight
scrollLeft
scrollTop
scrollWidth
style
tabIndex
title

Elements Methods

Additional Material

- **References**
  - W3Schools