

JavaScript DOM

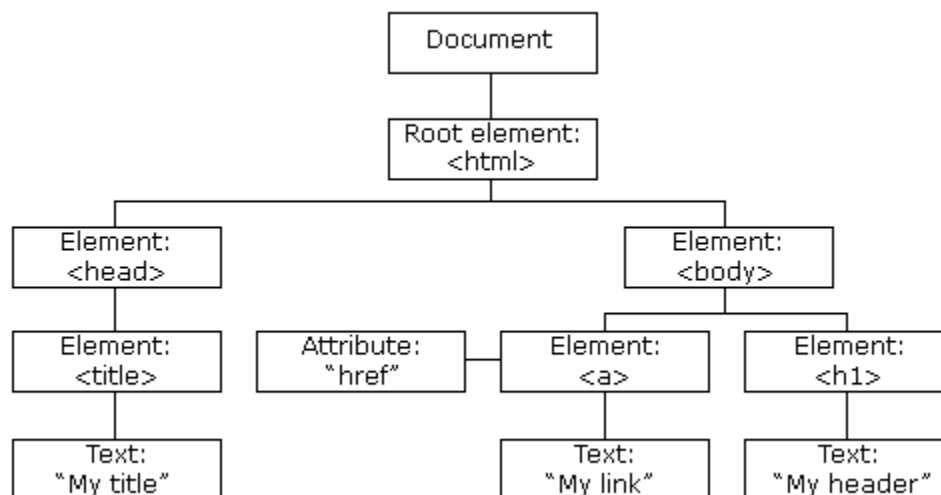
Topics Covered:

- What is DOM?
- DOM Properties.
- DOM Methods.
- Event Listeners.

Topics in Detail:

Document Object Method:

- The **document object** represents the whole html document.
- When an html document is loaded in the browser, it becomes a document object.
- `<html>` is the **root element** that represents the html document. It has properties and methods.
- By the help of document object, we can add dynamic content to our web page.
- The HTML DOM is a standard object model and programming interface for HTML. It defines:
 - The HTML elements as objects
 - The properties of all HTML elements
 - The methods to access all HTML elements
 - The events for all HTML elements



Properties of Document object:

Property	Description
element.innerHTML = new html content	Change the inner HTML of an element. <i>let content = element.innerHTML;</i>
element.attribute = new value	Change the attribute value of an HTML element. <i>var attrs = paragraph.attributes;</i>
element.style.property = new style	Change the style of an HTML element. <i>document.body.style.background = "red";</i>

DOM Methods:

Methods	Description
write("string")	Write the given string on the document. <i>document.write("Hello World!");</i>
getElementById()	Returns the element having the given ID value. <i>const element = document.getElementById("intro");</i>
getElementsByName()	Returns all the elements having the given name value. <i>const x = document.getElementsByName("main");</i>
getElementsByTagName()	Returns all the elements having the given tag name. <i>const element = document.getElementsByTagName("p");</i>
getElementsByClassName()	Returns all the elements having the given class name. <i>const x = document.getElementsByClassName("intro");</i>
querySelectorAll()	Returns all the elements that matches the specified CSS selector(id/class/element/name/type/value of attribute) <i>const x = document.querySelectorAll("p.intro");</i>

Event Listeners:

- The **addEventListener()** method is used to attach an event handler to a particular element.
- It does not override the existing event handlers. Events are said to be an essential part of JavaScript.
- The **addEventListener()** method is an inbuilt function of JavaScript.
- We can add multiple event handlers to a particular element without overwriting the existing event handlers.
- Syntax:
element.addEventListener(event, function, useCapture);
- The parameters ***event*** and ***function*** are widely used. The third parameter is optional to define.
 - **event:** It is a required parameter. It can be defined as a string that specifies the event's name.
 - **function:** It is also a required parameter. It is a JavaScript function which is invoked on the event.
 - **useCapture:** It is an optional parameter. It is a Boolean type value that specifies whether the event is executed in the bubbling or capturing phase. Its possible values are **true** and **false**.
- Example:

```
myForm.addEventListener("submit",
function(event){
    event.preventDefault()
    createItem(myInput.value)
})

function createItem(inputItems){
    var items = `<li>${inputItems}</li>`
    myItem.insertAdjacentHTML("beforeend", items)
    myInput.value = ""
    myInput.focus()
}
```