



WebCodeGenie
TECHNOLOGY PVT. LTD.

JavaScript (JS) With HTML

Mr. Devang Bhagdev

NodeJS Lead – WebCodeGenie Technology Pvt. Ltd

Mr. Bhavesh Parmar

Jr. Software Developer – WebCodeGenie Technology Pvt. Ltd

prompt and confirm



prompt

- The `prompt()` method displays a dialog box that prompts the user for input.
- The `prompt()` method returns the input value if the user clicks "OK", otherwise it returns null.

confirm

- The `confirm()` method displays a dialog box with a message, an OK button, and a Cancel button.
- The `confirm()` method returns true if the user clicked "OK", otherwise false.



setTimeout() & clearTimeout()

setTimeout()

- The `setTimeout()` method calls a function after a number of milliseconds.
- The `setTimeout()` is executed only once.

clearTimeout()

- The `clearTimeout()` method clears a timer set with the `setTimeout()` method.
- To clear a timeout, use the id returned from `setTimeout()`:



setInterval() & clearInterval()

setInterval()

- The setInterval() method calls a function at specified intervals (in milliseconds).
- The setInterval() method continues calling the function until clearInterval() is called, or the window is closed.

clearInterval()

- The clearInterval() method clears a timer set with the setInterval() method.
- To clear an interval, use the id returned from setInterval()



Why We Use Javascript ?

Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.

JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive.

- Show or hide more information with the click of a button
- Change the color of a button when the mouse hovers over it
- Slide through a carousel of images on the homepage
- Displaying a timer or countdown on a website
- Displaying animations and many more



How To Add JS In HTML ?

- **Inline**

```
<a onclick="alert('Welcome To WCG')">Click Me</a>
```

- **Internal**

```
<script>  
    function alertMe(){ alert('Welcome To WCG'); }  
</script>  
<a onclick="alertMe()">Click Me</a>
```

- **External**

```
<a onclick="alertMe()">Click Me</a>  
<script src="alertMeFile.js"></script>
```



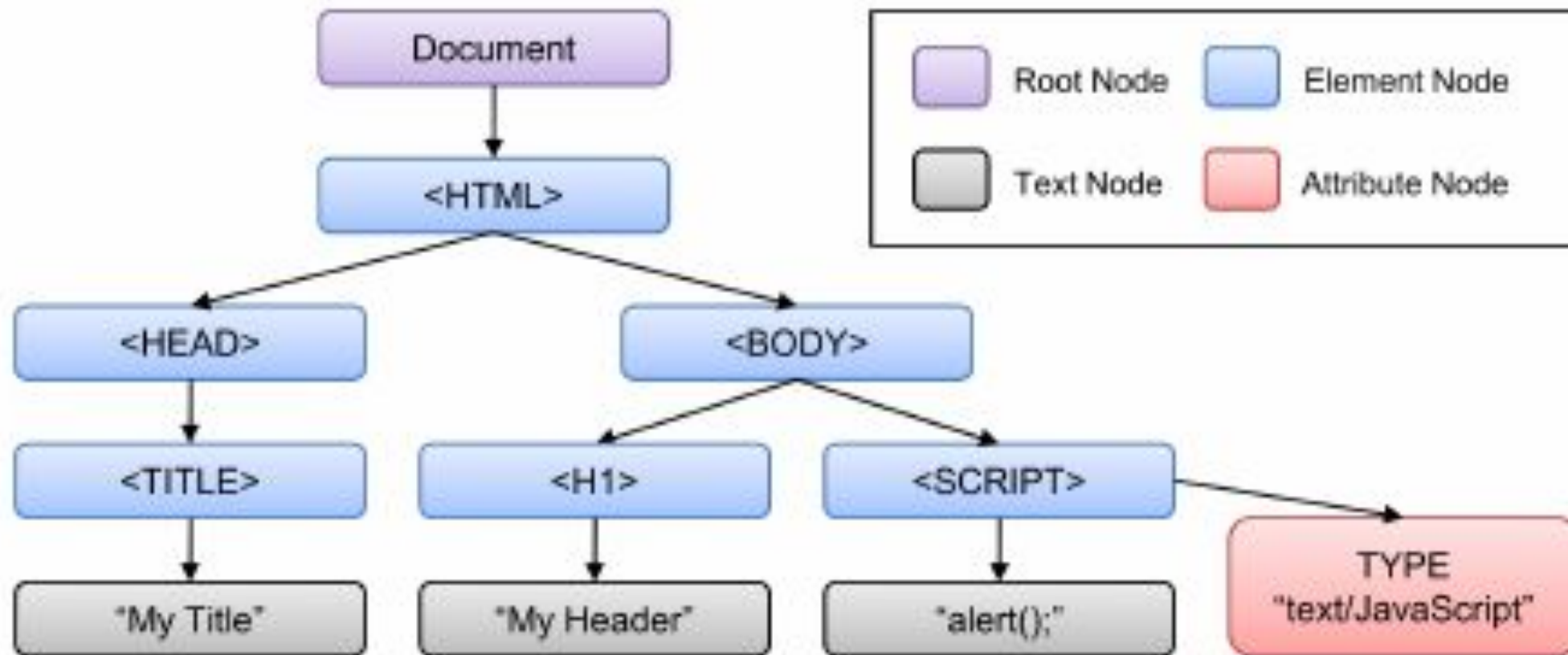
What is DOM ?



- DOM stands for Document Object Model. It is a programming interface that allows us to create, change, or remove elements from a website document.
- DOM manipulation is when you use JavaScript to add, remove, and modify elements of a website



DOM Tree





What We Can Change Using DOM Manipulation ?

- Remove existing HTML elements and attributes
- Add new HTML elements and attributes
- React to all existing HTML events in the page
- Create new HTML events in the page



Methods



DOM Selectors, as the name suggests is used to select HTML elements within a document using JavaScript

- `getElementsByTagName()`
- `getElementsByClassName()`
- `getElementById()`
- `querySelector()`
- `querySelectorAll()`



Adding and Deleting Elements

- `document.createElement(element)` - Create an HTML element
- `document.appendChild(element)` - Add an HTML element
- `document.removeChild(element)` - Remove an HTML element
- `document.replaceChild(new, old)` - Replace an HTML element
- `CreateTextNode(text)`- Creates a text node.



Changing HTML Elements



- `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` Change the style of an HTML element



1. innerHTML

- The HTML DOM allows JavaScript to change the content of HTML elements
- The easiest way to modify the content of an HTML element is by using the innerHTML property.

To change the content of an HTML element, use this syntax:

This is the element you
want to change the html
inside of it

`element.innerHTML = new HTML`

this is the new html code
or text you want to put
inside the element



2. attribute



This is the element you want to change an attribute of

`element.attribute = new value`

This is the attribute you want to change

this is the new value you want to assign to the specified attribute of the given element

[HTML attribute reference](#)



3. style



To change the style of an HTML element, use this syntax:



[HTML DOM style object reference](#)



JavaScript Events



- When a browser reacts on user action, then it is called as an event. For example, when you click on the submit button, then if the browser displays an information box.

Most useful events :

- click
- change
- focus
- keydown
- keypress
- keyup



- **addEventListener()**

- The `addEventListener()` method is used to attach an event handler to a particular element. It does not override the existing event handlers.
- `element.addEventListener(event, listener);`

- **removeEventListener()**

- This function used to removes an event handler that was previously added using the `addEventListener()` function from the element.
- `element.removeEventListener(event, listener)`



Custom Event



- To create a custom event we use the **Event** constructor or **CustomEvent** interface. The Event constructor creates an Event and CustomEvent creates an Event with more functionality.
- We listen to this event using the `addEventListener()` method.
- We trigger or dispatch the event using `element.dispatchEvent(eventName)` method.

```
// To assign event
const startEvent = new Event("start");

// To trigger the event Listener
document.addEventListener("start", () => {
    console.log("The start event was triggered")
});

// To trigger the Event
document.dispatchEvent(startEvent);
```

