JS **JavaScript**
T U T O R I A L

JavaScript DOM

This section covers the JavaScript Document Object Model (DOM) and shows you how to manipulate DOM elements effectively.

Section 1. Getting started

- Understanding the Document Object Model in JavaScript (https://www.javascripttutorial.net/javascript-dom/document-object-model-in-javascript/)

Section 2. Selecting elements

- getElementById() (https://www.javascripttutorial.net/javascript-dom/javascript-getelementbyid/) – select an element by id.

- getElementsByName() (https://www.javascripttutorial.net/javascript-dom/javascript-getelementsbyname/) – select elements by name.

- getElementsByTagName() (https://www.javascripttutorial.net/javascript-dom/javascript-getelementsbytagname/) – select elements by a tag name.

- getElementsByClassName() (https://www.javascripttutorial.net/javascript-dom/javascript-getelementsbyclassname/) – select elements by one or more class names.

- querySelector() (https://www.javascripttutorial.net/javascript-dom/javascript-queryselector/) – select elements by CSS selectors.

Section 3. Traversing elements

- Get the parent element (https://www.javascripttutorial.net/javascript-dom/javascript-get-parent-element-parentnode/) – get the parent node of an element.

- Get child elements (https://www.javascripttutorial.net/javascript-dom/javascript-get-child-element/) – get children of an element.

- Get siblings of an element (https://www.javascripttutorial.net/javascript-dom/javascript-siblings/) – get siblings of an element.

Section 4. Manipulating elements

- createElement() (https://www.javascripttutorial.net/javascript-dom/javascript-createelement/) – create a new element.

- appendChild() (https://www.javascripttutorial.net/javascript-dom/javascript-appendchild/) – append a node to a list of child nodes of a specified parent node.

- textContent (https://www.javascripttutorial.net/javascript-dom/javascript-textcontent/) – get and set the text content of a node.

- innerHTML (https://www.javascripttutorial.net/javascript-dom/javascript-innerhtml/) – get and set the HTML content of an element.

- innerHTML vs. createElement (https://www.javascripttutorial.net/javascript-dom/javascript-innerhtml-vs-createelement/) – explain the differences between innerHTML and createElement when it comes to creating new elements.

- DocumentFragment (https://www.javascripttutorial.net/javascript-dom/javascript-documentfragment/) – learn how to compose DOM nodes and insert them into the active DOM tree.

- after() (https://www.javascripttutorial.net/javascript-dom/javascript-after/) – insert a node after an element.

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- **append()** (https://www.javascripttutorial.net/javascript-dom/javascript-append/) – insert a node after the last child node of a parent node.

- **prepend()** (https://www.javascripttutorial.net/javascript-dom/javascript-prepend/) – insert a node before the first child node of a parent node.

- **insertAdjacentHTML()** (https://www.javascripttutorial.net/javascript-dom/javascript-insertadjacenthtml/) – parse a text as HTML and insert the resulting nodes into the document at a specified position.

- **replaceChild()** (https://www.javascripttutorial.net/javascript-dom/javascript-replacechild/) – replace a child element by a new element.

- **cloneNode()** (https://www.javascripttutorial.net/javascript-dom/javascript-clonenode/) – clone an element and all of its descendants.

- **removeChild()** (https://www.javascripttutorial.net/javascript-dom/javascript-removechild/) – remove child elements of a node.

- **insertBefore()** (https://www.javascripttutorial.net/javascript-dom/javascript-insertbefore/) – insert a new node before an existing node as a child node of a specified parent node.

- **insertAfter() helper function** (https://www.javascripttutorial.net/javascript-dom/javascript-insertafter/) – insert a new node after an existing node as a child node of a specified parent node.

Section 5. Working with Attributes

- **HTML Attributes & DOM Object's Properties** (https://www.javascripttutorial.net/javascript-dom/html-attributes-dom-object-properties/) – understand the relationship between HTML attributes & DOM object's properties.

- **setAttribute()** (https://www.javascripttutorial.net/javascript-dom/javascript-setattribute/) – set the value of a specified attribute on a element.

- **getAttribute()** (https://www.javascripttutorial.net/javascript-dom/javascript-getattribute/) – get the value of an attribute on an element.

- **removeAttribute()** (https://www.javascripttutorial.net/javascript-dom/javascript-removeattribute/) – remove an attribute from a specified element.

- hasAttribute() (https://www.javascripttutorial.net/javascript-dom/javascript-hasattribute/) – check if an element has a specified attribute or not.

Section 6. Manipulating Element's Styles

- style property (https://www.javascripttutorial.net/javascript-dom/javascript-style/) – get or set inline styles of an element.

- getComputedStyle() (https://www.javascripttutorial.net/javascript-dom/javascript-getcomputedstyle/) – return the computed style of an element.

- className property (https://www.javascripttutorial.net/javascript-dom/javascript-classname/) – return a list of space-separated CSS classes.

- classList property (https://www.javascripttutorial.net/javascript-dom/javascript-classlist/) – manipulate CSS classes of an element.

- Element's width & height (https://www.javascripttutorial.net/javascript-dom/javascript-width-height/) – get the width and height of an element.

Section 7. Working with Events

- JavaScript events (https://www.javascripttutorial.net/javascript-dom/javascript-events/) – introduce you to the JavaScript events, the event models, and how to handle events.

- Handling events (https://www.javascripttutorial.net/javascript-dom/handling-events-in-javascript/) – show you three ways to handle events in JavaScript.

- Page Load Events (https://www.javascripttutorial.net/javascript-dom/javascript-page-load-events/) – learn about the page load and unload events.

- load event (https://www.javascripttutorial.net/javascript-dom/javascript-onload/) – walk you through the steps of handling the load event originating from the document, image, and script elements.

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- DOMContentLoaded (https://www.javascripttutorial.net/javascript-dom/javascript-domcontentloaded/) – learn how to use the `DOMContentLoaded` event correctly.

- beforeunload event (https://www.javascripttutorial.net/javascript-dom/javascript-beforeunload-event/) – guide you on how to show a confirmation dialog before users leave the page.

- unload event (https://www.javascripttutorial.net/javascript-dom/javascript-unload/) – show you how to handle the unload event that fires when the page is completely unloaded.

- Mouse events (https://www.javascripttutorial.net/javascript-dom/javascript-mouse-events/) – how to handle mouse events.

- Keyboard events (https://www.javascripttutorial.net/javascript-dom/javascript-keyboard-events/) – how to deal with keyboard events.

- Scroll events (https://www.javascripttutorial.net/javascript-dom/javascript-scroll-events/) – how to handle scroll events effectively.

- scrollIntoView (https://www.javascripttutorial.net/javascript-dom/javascript-scrollintoview/) – learn how to scroll an element into view.

- Focus Events (https://www.javascripttutorial.net/javascript-dom/javascript-focus-events/) – cover the focus events.

- haschange event (https://www.javascripttutorial.net/javascript-dom/javascript-hashchange/) – learn how to handle the event when URL hash changes.

- Event Delegation (https://www.javascripttutorial.net/javascript-dom/javascript-event-delegation/) – is a technique of levering event bubbling to handle events at a higher level in the DOM than the element on which the event originated.

- dispatchEvent (https://www.javascripttutorial.net/javascript-dom/javascript-dispatchevent/) – learn how to generate an event from code and trigger it.

- Custom Events (https://www.javascripttutorial.net/javascript-dom/javascript-custom-events/) – define a custom JavaScript event and attach it to an element.

- MutationObserver (https://www.javascripttutorial.net/javascript-dom/javascript-mutationobserver/) – monitor the DOM changes and invoke a callback when the changes occur.

Section 8. Scripting Web Forms

- JavaScript Form (https://www.javascripttutorial.net/javascript-dom/javascript-form/) – learn how to handle form `submit` event and perform a simple validation for a web form.

- Radio Button (https://www.javascripttutorial.net/javascript-dom/javascript-radio-button/) – show you how to write the JavaScript for radio buttons.

- Checkbox (https://www.javascripttutorial.net/javascript-dom/javascript-checkbox/) – guide you on how to manipulate checkbox in JavaScript.

- Select box (https://www.javascripttutorial.net/javascript-dom/javascript-select-box/) – learn how to handle the select box and its option in JavaScript.

- Add / Remove Options (https://www.javascripttutorial.net/javascript-dom/javascript-add-remove-options/) – show you how to dynamically add options to and remove options from a select box.

- Removing Items from <select> element conditionally (https://www.javascripttutorial.net/javascript-dom/javascript-remove-items-from-a-select-conditionally/) – show you how to remove items from a `<select>` element conditionally.

- Handling change event (https://www.javascripttutorial.net/javascript-dom/javascript-change-event/) – learn how to handle the change event of the input text, radio button, checkbox, and select elements.

- Handling input event (https://www.javascripttutorial.net/javascript-dom/javascript-input-event/) – handle the input event when the value of the input element changes.

JavaScript DOM Projects

(https://www.javascripttutorial.net/javas

(https://www.javascripttutorial.net/javascript-dom/javascript-word-counter/)

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cript-dom/javascript-toggle-password-
visibility/)

Toggle Password
Visibility

(https://www.javascripttutorial.
net/javascript-dom/javascript-
toggle-password-visibility/)

Learn how to toggle the
visibility of the password.

Word Counter

(https://www.javascripttutorial.
net/javascript-dom/javascript-
word-counter/)

A step-by-step guide you on
how to develop a Word Counter
app.

cript-dom/javascript-debounce/)

Wikipedia Search

(https://www.javascripttutorial.
net/javascript-dom/javascript-
debounce/)

Build a Wikipedia Search
application from scratch.

(https://www.javascripttutorial.net/javas
cript-dom/javascript-form-validation/)

Form Validation

(https://www.javascripttutorial.
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form-validation/)

Show you how to implement
Form Validation using
JavaScript

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cript-dom/javascript-countdown-timer/)

Countdown Timer

(https://www.javascripttutorial.
net/javascript-dom/javascript-
countdown-timer/)

Make a reusable countdown
timer and use it to build the
New Year countdown.

(https://www.javascripttutorial.net/javas
cript-dom/javascript-infinite-scroll/)

Infinite Scroll

(https://www.javascripttutorial.
net/javascript-dom/javascript-
infinite-scroll/)

Implement an infinite scroll
contents using JavaScript.