

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

## Section 2. Selecting elements

getElementById()– select an element by id.

getElementsByName()– select elements by name.

getElementsByTagName(). – select elements by a tag name.

getElementsByClassName()– select elements by one or more class names.

querySelector(). – select elements by CSS selectors.

## Section 3. Traversing elements

Get the parent element– get the parent node of an element.

Get child elements– get children of an element.

Get siblings of an element– get siblings of an element.

## Section 4. Manipulating elements

createElement()– create a new element.

appendChild(). – append a node to a list of child nodes of a specified parent node.

textContent– get and set the text content of a node.

innerHTML– get and set the HTML content of an element.

innerHTML vs. createElement– explain the differences between innerHTML and createElement when it comes to creating new elements.

DocumentFragment – learn how to compose DOM nodes and insert them into the active DOM tree.

insertBefore()– insert a new node before an existing node as a child node of a specified parent node.

insertAfter() helper function– insert a new node after an existing node as a child node of a specified parent node.

append()– insert a node after the last child node of a parent node.

prepend()– insert a node before the first child node of a parent node.

insertAdjacentHTML()– parse a text as HTML and insert the resulting nodes into the document at a specified position.

replaceChild()– replace a child element by a new element.

cloneNode()– clone an element and all of its descendants.

removeChild()– remove child elements of a node.

## Section 5. Working with Attributes

HTML Attributes & DOM Object's Properties– understand the relationship between HTML attributes & DOM object's properties.

setAttribute()– set the value of a specified attribute on a element.

getAttribute()– get the value of an attribute on an element.

removeAttribute()– remove an attribute from a specified element.

hasAttribute()– check if an element has a specified attribute or not.

## Section 6. Manipulating Element's Styles

style property– get or set inline styles of an element.

getComputedStyle()– return the computed style of an element.

className property– return a list of space-separated CSS classes.

classList property– manipulate CSS classes of an element.

Element's width & height– get the width and height of an element.

## Section 7. Working with Events

JavaScript events– introduce you to the JavaScript events, the event models, and how to handle events.

Handling events– show you three ways to handle events in JavaScript.

Page Load Events– learn about the page load and unload events.

load event– walk you through the steps of handling the load event originated from the document, image, and script elements.

DOMContentLoaded– learn how to use the `DOMContentLoaded` event correctly.

beforeunload event– guide you on how to show a confirmation dialog before users leave the page.

unload event– show you how to handle the unload event that fires when the page is completely unloaded.

Mouse events– how to handle mouse events.

Keyboard events– how to deal with keyboard events.

Scroll events– how to handle scroll events effectively.

scrollIntoView– learn how to scroll an element into view.

Focus Events– cover the focus events.

haschange event– learn how to handle the event when URL hash changes.

Event Delegation– is a technique of leveraging event bubbling to handle events at a higher level in the DOM than the element on which the event originated.

dispatchEvent– learn how to generate an event from code and trigger it.

Custom Events– define a custom JavaScript event and attach it to an element.

MutationObserver– monitor the DOM changes and invoke a callback when the changes occur.

## Section 8. Scripting Web Forms

JavaScript Form– learn how to handle form `submit` event and perform a simple validation for a web form.

Radio Button– show you how to write the JavaScript for radio buttons.

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Checkbox– guide you on how to manipulate checkbox in JavaScript.

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Select box– learn how to handle the select box and its option in JavaScript.

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Add / Remove Options– show you how to dynamically add options to and remove options from a select box.

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Handling change event– learn how to handle the change event of the input text, radio button, checkbox, and select elements.

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Handling input event– handle the input event when the value of the input element changes.

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