

DOM Manipulation Tasks using JavaScript

1. Selecting Elements

- `getElementById(id)`: Selects an element by its ID.

Example: `document.getElementById("header");`

- `getElementsByClassName(class)`: Selects all elements with a class name.

Example: `document.getElementsByClassName("item");`

- `querySelector(selector)`: Returns the first element that matches a CSS selector.

Example: `document.querySelector(".nav");`

- `querySelectorAll(selector)`: Returns all elements matching a selector.

Example: `document.querySelectorAll("div.box");`

2. Creating and Inserting Elements

- `createElement(tag)`: Creates a new HTML element.

Example: `document.createElement("p");`

- `appendChild(child)`: Adds an element to the end of a parent.

Example: `parent.appendChild(newElement);`

- `prepend(child)`: Adds an element at the beginning.

Example: `parent.prepend(newElement);`

- `insertBefore(new, existing)`: Inserts new before existing.

Example: `parent.insertBefore(newEl, existingEl);`

3. Modifying Elements

- `innerHTML`: Sets or gets HTML content.

Example: `element.innerHTML = "Bold";`

- `textContent`: Sets or gets only text content.

DOM Manipulation Tasks using JavaScript

Example: `element.textContent = "Hello";`

- `setAttribute(name, value)`: Sets an attribute.

Example: `img.setAttribute("src", "image.jpg");`

- `classList.add/remove/toggle`: Manages classes.

Example: `el.classList.add("active");`

4. Removing Elements

- `remove()`: Removes the element from DOM.

Example: `element.remove();`

- `removeChild(child)`: Removes a child from a parent.

Example: `parent.removeChild(childElement);`

5. Event Handling

- `addEventListener(event, function)`: Adds an event listener.

Example: `button.addEventListener("click", () => {});`

- `removeEventListener(event, function)`: Removes a listener.

- `preventDefault()`: Prevents default action (e.g., form submit).

- `stopPropagation()`: Stops the event from bubbling up.

6. Form & Input Methods

- `focus()`: Brings focus to input.

Example: `input.focus();`

- `blur()`: Removes focus.

DOM Manipulation Tasks using JavaScript

- value: Get or set input value.

Example: `input.value = "Hello";`

- checked: For checkboxes/radios.

Example: `checkbox.checked = true;`

7. DOM Traversal

- `parentElement`: Get parent.
- `children`: Get child elements.
- `nextElementSibling` / `previousElementSibling`: Navigate siblings.
- `closest(selector)`: Find nearest ancestor.
- `matches(selector)`: Check if element matches a selector.

Example:

`element.closest(".container");`

`element.matches("button.active");`