**DOM (D**ocument **O**bject **M**odel**)**

a comprehensive guide to selecting elements in JavaScript using various DOM methods:

### **1. Selecting by ID**

**getElementById**  
const elementById = document.getElementById('myElementId');

### **2. Selecting by Class Name**

**getElementsByClassName**  
const elementsByClassName = document.getElementsByClassName('myClassName');

// Returns a live HTMLCollection

### **3. Selecting by Tag Name**

**getElementsByTagName**  
const elementsByTagName = document.getElementsByTagName('div');

// Returns a live HTMLCollection

### **4. Selecting by CSS Selector**

**querySelector**  
const firstElementBySelector = document.querySelector('.myClassName');

// Returns the first element that matches the CSS selector

**querySelectorAll**  
const allElementsBySelector = document.querySelectorAll('.myClassName');

// Returns a static NodeList

### **5. Selecting by Name Attribute**

**getElementsByName**  
const elementsByName = document.getElementsByName('myElementName');

// Returns a live NodeList

### **6. Selecting Using Parent-Child Relationships**

**children property**  
const parentElement = document.getElementById('parent');

const childrenElements = parentElement.children;

// Returns a live HTMLCollection of child elements

**firstElementChild and lastElementChild properties**  
const firstChild = parentElement.firstElementChild;

const lastChild = parentElement.lastElementChild;

// Returns the first and last child element respectively

### **7. Selecting Sibling Elements**

**nextElementSibling and previousElementSibling properties**  
const nextSibling = elementById.nextElementSibling;

const previousSibling = elementById.previousElementSibling;

// Returns the next and previous sibling elements respectively

### **8. Selecting Using Closest Ancestor**

**closest method**  
const closestAncestor = elementById.closest('.ancestorClassName');

// Returns the closest ancestor that matches the CSS selector

### **9. Selecting the Document Root Element**

**document.documentElement**  
const rootElement = document.documentElement;

// Returns the <html> element

### **10. Selecting the Body Element**

**document.body**  
const bodyElement = document.body;

// Returns the <body> element

### **11. Selecting the Head Element**

**document.head**  
const headElement = document.head;

// Returns the <head> element

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