

# Document and Element interface

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## AGENDA

1. Document interface
2. Element interface
3. HTMLElement interface

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## 1. Document interface

### Properties

| # | Name                           | Desc                          |
|---|--------------------------------|-------------------------------|
| 1 | document.documentElement       | get the html node             |
| 2 | document.body                  | get the body node             |
| 3 | document.head                  | get the head node             |
| 4 | document.cookie (HTMLDocument) | get / set cookie              |
| 5 | document.title (HTMLDocument)  | get title of current document |

### Methods

#### Query elements

| # | Name                                  | Desc                                      |
|---|---------------------------------------|---|
| 1 | document.getElementById(id)           | get an element by id                      |
| 2 | document.getElementsByClassName(name) | get a live NodeList by class name         |
| 3 | document.getElementsByTagName(name)   | get a live NodeList by tag name           |
| 4 | document.querySelector(selector)      | get the first Node that match selector    |
| 5 | document.querySelectorAll(selector)   | get a static NodeList that match selector |

#### Create

| # | Name                            | Desc  |
|---|---------------------------------|---|
| 1 | document.createAttribute(name)  | create return Attr node and returns it                      |
| 2 | document.createElement(tagName) | create the HTML element specified by tagName and returns it |

## 2. Element interface

### Properties

| # | Name              | Desc                                  |
|---|-------------------|---------------------------------------|
| 1 | Element.className | get class string                      |
| 2 | Element.classList | object to manage class list           |
| 3 | Element.innerHTML | html markup <b>within</b> the element |
| 4 | Element.outerHTML | html markup of current element        |
| 5 | Element.id        | the id of the element                 |

### Element size

| # | Name                 | Desc  |
|---|----------------------|---|
| 1 | Element.clientHeight | the inner height of the element             |
| 2 | Element.clientTop    | the width of the top border of the element  |
| 3 | Element.clientWidth  | the inner width of the element              |
| 4 | Element.clientLeft   | the width of the left border of the element |

### Scroll

| # | Name                 | Desc  |
|---|----------------------|---|
| 1 | Element.scrollHeight | the scroll view height of an element                                |
| 3 | Element.scrollTop    | the number of pixels the top of the document is scrolled vertically |
| 2 | Element.scrollLeft   | the left scroll offset of the element                               |
| 4 | Element.scrollWidth  | the scroll view width of the element                                |

### Traversal

| # | Name                           | Desc   |
|---|--------------------------------|--|
| 1 | Element.children               | return a live HTMLCollection containing all direct child elements. |
| 2 | Element.firstChild             | returns an element's first child Element                           |
| 3 | Element.lastChild              | returns an element's last child Element                            |
| 4 | Element.previousElementSibling | return previous element, or null if it's the first child           |
| 5 | Element.nextElementSibling     | return next element, or null it's the last child                   |

## Methods

### Add/Remove/Replace

| # | Name                          | Desc   |
|---|-------------------------------|--|
| 1 | Element.before(...nodes)      | insert a set of nodes before current element |
| 2 | Element.after(...nodes)       | insert a set of nodes after current element  |
| 3 | Element.prepend(...nodes)     | insert a set of nodes before the first child |
| 4 | Element.append(...nodes)      | insert a set of nodes after the last child   |
| 5 | Element.remove()              | remove current element from the tree         |
| 6 | Element.replaceWith(...nodes) | replace current element with a set of nodes  |

### Attributes

| # | Name                              | Desc                                   |
|---|-----------------------------------|--|
| 1 | Element.getAttribute(name)        | get value of an attribute by name      |
| 2 | Element.hasAttribute(name)        | check if an attribute is existed       |
| 3 | Element.setAttribute(name, value) | set value for attribute name           |
| 4 | Element.removeAttribute(name)     | remove an attribute by name            |
| 5 | Element.toggleAttribute(name)     | toggle an attribute                    |
| 6 | Element.attributes()              | live collection of all attribute nodes |

### Query elements

| # | Name                                 | Desc                                      |
|---|--------------------------------------|---|
| 1 | Element.getElementsByClassName(name) | get a live NodeList by class name         |
| 2 | Element.getElementsByTagName(name)   | get a live NodeList by tag name           |
| 3 | Element.querySelector(selector)      | get the first Node that match selector    |
| 4 | Element.querySelectorAll(selector)   | get a static NodeList that match selector |

## Others

| # | Name                            | Desc   |
|---|---------------------------------|--|
| 1 | Element.getBoundingClientRect() | return a DOMRect object providing info about the size and its position |
| 2 | Element.scroll()                | scrolls the element to a particular set of coordinates                 |
| 3 | Element.scrollTo()              | scrolls the element to a particular set of coordinates                 |
| 4 | Element.scrollBy()              | scrolls an element by the given amount                                 |

Source: <https://developer.mozilla.org/en-US/docs/Web/API/Element>

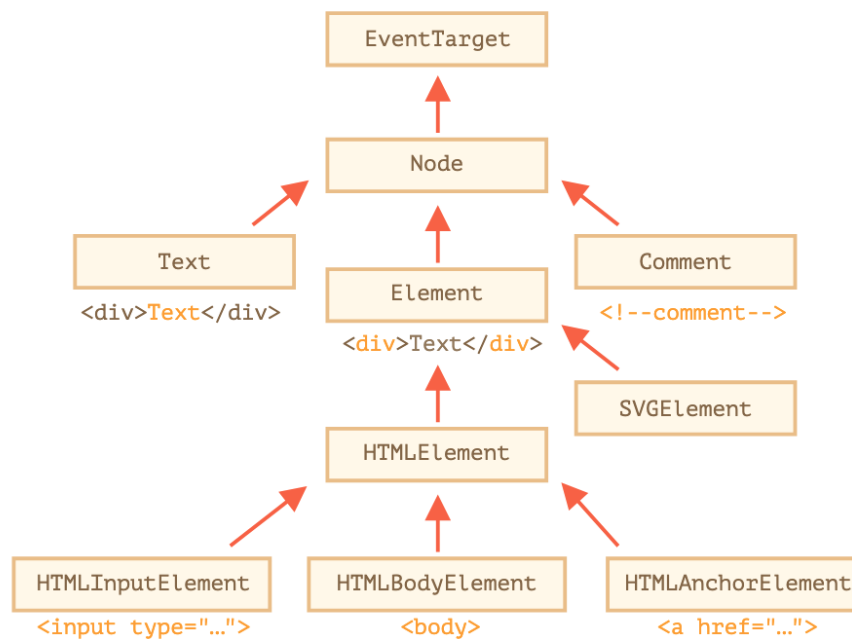
## 3. HTMLElement interface

### Properties

| # | Name                  | Desc   |
|---|-----------------------|--|
| 1 | HTMLElement.dataset   | read/write custom data attributes (data-*)                     |
| 2 | HTMLElement.hidden    | indicating the element is hidden or not                        |
| 3 | HTMLElement.innerText | the "rendered" text content of a node and its descendant       |
| 4 | HTMLElement.style     | representing the declarations of the element's style attribute |
| 5 | HTMLElement.title     | text appears in a popup box when hover                         |
| 6 | HTMLElement.tabIndex  | the position of the element in the tabbing order               |

### Methods

| # | Name                | Desc                                    |
|---|---------------------|---|
| 1 | HTMLElement.blur()  | remove keyboard focus                   |
| 2 | HTMLElement.focus() | focus to current element                |
| 3 | HTMLElement.click() | send a mouse click event to the element |



Source: [Basic DOM Node Props | javascript.info](https://javascript.info/basic-dom-node-props)

## Tham khảo

- <https://javascript.info/basic-dom-node-properties>
- <https://developer.mozilla.org/en-US/docs/Web/API/Element>

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## Khoá học Javascript cho người mới bắt đầu 2021 🎨

- Tác giả: **Hậu Nguyễn** - Founder Easy Frontend
- Khoá học chỉ được published trên Udemy, không thông qua trung gian.
- Khoá học không bán dạng videos upload trên Google Drive hay bất cứ hình thức nào tương tự.
- Khoá học có nhóm discord để hỗ trợ trong quá trình học tập.

📞 Liên hệ tác giả để được hỗ trợ:

- ✅ Facebook: <https://www.facebook.com/nvhauesmn/>
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