

## 14 DOM - Document Object Model

### Query/Get Elements

```
// Preferred way:  
document.querySelector('css-selectors')  
document.querySelectorAll('css-selectors', ...)
```

```
// Old ways, and still work:  
document.getElementsByTagName('element-name')  
document.getElementsByClassName('class-name')  
document.getElementById('id')
```

### Create / clone Element

```
document.createElement('div')  
document.createTextNode('some text here')  
node.cloneNode()  
node.textContent = 'some text here'
```

### Add node to document

```
parentNode.appendChild(nodeToAdd)  
parentNode.insertBefore(nodeToAdd, childNode)
```

### Get Element Details

```
node.nextSibling  
node.firstChild  
node.lastChild  
node.parentNode  
node.childNodes  
node.children
```

### Modify Element

```
node.style.color = 'red'  
node.style.padding = '10px',  
node.style.fontSize = '200%'  
  
node.setAttribute('attr-name', 'attr-value')  
node.removeAttribute('attr-name')
```

### Get and Modify Element Class

```
node.classList  
node.classList.add('class-name', ...)  
node.classList.remove('class-name', ...)  
node.classList.toggle('class-name')  
node.classList.contains('class-name')  
node.classList.replace('old', 'new')
```

### Remove Node

```
parentNode.removeChild(nodeToRemove)  
// Hack to remove self  
nodeToRemove.parentNode.removeChild(nodeToRemove)
```

### Events

```
node.addEventListener('event-name', callback-function)  
node.removeEventListener('event-name', callback-function)
```

List of Events: <https://developer.mozilla.org/en-US/docs/Web/Events>  
or google "Mozilla event reference"

### What is a "Node"? (in the context of DOM)

**Node:** Every item in the DOM tree is called a node. There are two types of node - A text node, and an element node:

**Text Node:** Node that has text.

**Element Node:** Node that has an element.

**Child Node:** A node which is a child of another node.

**Parent Node:** A node which has one or more child.

**Descendent Node:** A node which is nested deep in the tree.

**Sibling Node:** A node that share the same parent node.