First and last child

```
<!DOCTYPE html>
<html>
<body>


<p>My list</p>
<ul id="myList"><li>India</li><li>Canada</li></ul>

<p>The HTML content of the list's first child node is:</p>
<p id="demo"></p>
<script>
let text = document.getElementById("myList").firstChild.innerHTML;
document.getElementById("demo").innerHTML = text;
</script>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
<h2>The lastChild Property</h2>

<ul id="myList"><li>Coffee</li><li>Tea</li></ul>

<p>The HTML content of the list's last child node is:</p>
<p id="demo"></p>
```

```
<script>
let text = document.getElementById("myList").lastChild.innerHTML;
document.getElementById("demo").innerHTML = text;
</script>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h1>The Document Object</h1>
<h2>The getElementsByTagName() Method</h2>

<p>An unordered list:</p>
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

<p>The innerHTML of the second li element is:</p>
<p id="demo"></p>
```

```
<script>
const collection = document.getElementsByTagName("li");

document.getElementById("demo").innerHTML = collection[0].innerHTML;

</script>

</body>
</html>
```

……

The Element Object

The parentNode Property

- Coffee
- Tea

The node name of the parent node of "myLI" is:

UL

Parent node

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
<h2>The parentNode Property</h2>

<ul>
  <li id="myLI">Coffee</li>
```

```
  <li>Tea</li>
</ul>

<p>The node name of the parent node of "myLI" is:</p>
<p id="demo"></p>

<script>
let name = document.getElementById("myLI").parentNode.nodeName;
document.getElementById("demo").innerHTML = name;
</script>

</body>
</html>
```

Next and Previous sibling

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
<h2>The nextSibling Property</h2>

<ul><li id="item1">Coffee (first item)</li><li id="item2">Tea (second item)</li></ul>

<p>The HTML content of the next sibling of the first list item is:</p>
<p id="demo"></p>
```

Note: Whitespace between elements is considered text nodes.

If you add whitespace between the two li elements, the result will be "undefined".

<script>

let text = document.getElementById("item1").nextSibling.innerHTML;

document.getElementById("demo").innerHTML = text;

</script>

</body>

</html>

The Element Object

The nextSibling Property

- Coffee (first item)
- Tea (second item)

The HTML content of the next sibling of the first list item is:

Tea (second item)

Note: Whitespace between elements is considered text nodes.

If you add whitespace between the two li elements, the result will be "undefined".

<!DOCTYPE html>

<html>

<body>

<h1>The Element Object</h1>

<h2>The previousSibling Property</h2>

<li id="item1">Coffee (first item)
<li id="item2">Tea (second item)

The HTML content of the previous sibling of the second list item is:

```
<p id="demo"></p>

<p><strong>Note:</strong> Whitespace between elements is considered text nodes.</p>

<p>If you add whitespace between the two li elements, the result will be "undefined".</p>

<script>

let text = document.getElementById("item2").previousSibling.innerHTML;

document.getElementById("demo").innerHTML = text;

</script>

</body>

</html>
```

The Element Object

The previousSibling Property

- Coffee (first item)
- Tea (second item)

The HTML content of the previous sibling of the second list item is:

Coffee (first item)

Note: Whitespace between elements is considered text nodes.

If you add whitespace between the two li elements, the result will be "undefined".

Previous element sibling

```
<!DOCTYPE html>

<html>

<body>

<h1>The Element Object</h1>

<h2>The previousElementSibling Property</h2>
```

```
<ul>
  <li id="item1">Coffee (first item)</li>
  <li id="item2">Tea (second item)</li>
</ul>

<p>The previous sibling of the second list item has the text:</p>
<p id="demo"></p>

<script>
let text = document.getElementById("item2").previousElementSibling.innerHTML;
document.getElementById("demo").innerHTML = text;
</script>

</body>
</html>
```

The Element Object

The previousElementSibling Property

- Coffee (first item)
- Tea (second item)

The previous sibling of the second list item has the text:

Coffee (first item)

Next element sibling

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
<h2>The nextElementSibling Property</h2>
```

```
<ul>
  <li id="item1">Coffee (first item)</li>
  <li id="item2">Tea (second item)</li>
</ul>

<p>The HTML content of the next sibling of the first list item has the text:</p>
<p id="demo"></p>

<script>
let text = document.getElementById("item1").nextElementSibling.innerHTML;
document.getElementById("demo").innerHTML = text;
</script>

</body>
</html>
```

The Element Object

The nextElementSibling Property

- Coffee (first item)
- Tea (second item)

The HTML content of the next sibling of the first list item has the text:

Tea (second item)

firstElementChild

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
```

```
<h2>The firstElementChild Property</h2>

<ul id="myList">
  <li>Coffee</li>
  <li>Tea</li>
</ul>

<p>The HTML content of the list's first child is:</p>
<p id="demo"></p>

<script>
let text = document.getElementById("myList").firstElementChild.innerHTML;
document.getElementById("demo").innerHTML = text;
</script>

</body>
</html>
```

The Element Object

The firstElementChild Property

- Coffee
- Tea

The HTML content of the list's first child is:

Coffee

lastElementChild

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
```

```
<h2>The lastElementChild Property</h2>

<div id="myDIV">
  <p>A P element - First child in "myDIV"</p>
  <span>A Span element - Last child in in "myDIV"</span>
</div>

<p>The tag name of "myDIV"s last child element is:</p>
<p id="demo"></p>

<script>
const element = document.getElementById("myDIV");
document.getElementById("demo").innerHTML = element.lastElementChild.tagName;
</script>

</body>
</html>
```

The Element Object

The lastElementChild Property

A P element - First child in "myDIV"

A Span element - Last child in in "myDIV"

The tag name of "myDIV"s last child element is:

SPAN

parentNode

```
<!DOCTYPE html>
<html>
<body>
```

```
<h1>The Element Object</h1>

<h2>The parentNode Property</h2>


<ul>
  <li id="myLI">Coffee</li>
  <li>Tea</li>
</ul>


<p>The node name of the parent node of "myLI" is:</p>

<p id="demo"></p>


<script>

let name = document.getElementById("myLI").parentNode.nodeName;

document.getElementById("demo").innerHTML = name;

</script>


</body>

</html>
```

The Element Object

The parentNode Property

- Coffee
- Tea

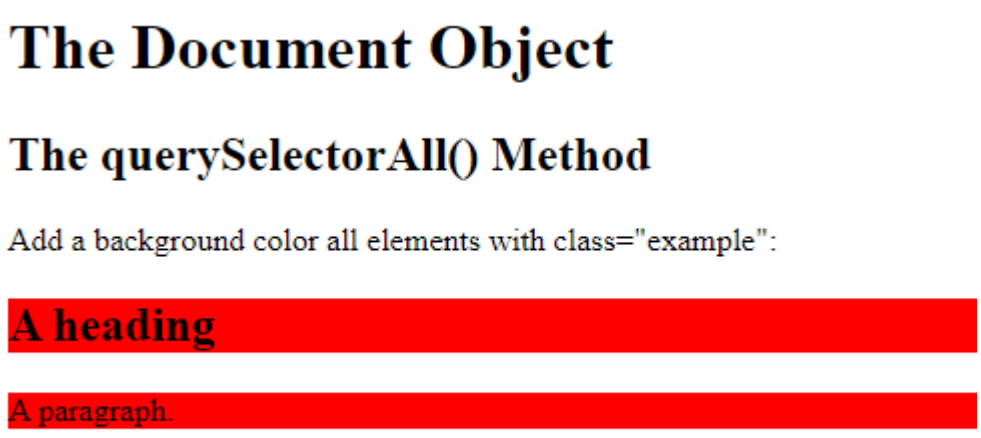
The node name of the parent node of "myLI" is:

UL

querySelectorAll

```
<!DOCTYPE html>

<html>
```

```
<body>
<h1>The Document Object</h1>
<h2>The querySelectorAll() Method</h2>

<p>Add a background color all elements with class="example":</p>
<h2 class="example">A heading</h2>
<p class="example">A paragraph.</p>

<script>
const nodeList = document.querySelectorAll(".example");
for (let i = 0; i < nodeList.length; i++) {
  nodeList[i].style.backgroundColor = "red";
}
</script>

</body>
</html>
```



getAttribute

```
<!DOCTYPE html>
<html>
<body>
```

<h1>The Element Object</h1>

<h2>The getAttribute() Method</h2>

Learn more about the Attr object.

The value of the target attribute of the link above is:

<script>

const myAnchor = document.getElementById("myAnchor")

let text = myAnchor.getAttribute("target");

document.getElementById("demo").innerHTML = text;

</script>

</body>

</html>

The Element Object

The getAttribute() Method

Learn more about the Attr object.

The value of the target attribute of the link above is:

_blank

<!DOCTYPE html>

<html>

<body>

<h1 id="myH1" class="democlass">The Element Object</h1>

```
<h2>The getAttribute() Method</h2>

<p>The value of the class attribute of the h1 element is:</p>

<p id="demo"></p>

<script>
const element = document.getElementById("myH1");
let text = element.getAttribute("class");
document.getElementById("demo").innerHTML = text;
</script>

</body>
</html>
```

The Element Object

The getAttribute() Method

The value of the class attribute of the h1 element is:

democlass

setAttribute

```
<!DOCTYPE html>
<html>
<style>
.democlass {
  color: red;
}
</style>
```

```
<body>
<h1 id="myH1">The Element Object</h1>
<h2>The setAttribute() Method</h2>

<p>Click "Add Class" to add a class attribute to the h1 element:</p>

<button onclick="myFunction()">Add Class</button>

<script>
function myFunction() {
  document.getElementById("myH1").setAttribute("class", "democlass");
}
</script>

</body>
</html>
```

The Element Object

The setAttribute() Method

Click "Add Class" to add a class attribute to the h1 element:

Add Class

HasAttribute

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
<h2>The hasAttributes() Method</h2>
```

```
<p>The body element has attributes:</p>

<p id="demo"></p>


<p>Adding an attribute to the body element, and the result will be true.</p>


<script>

let answer = document.body.hasAttributes();

document.getElementById("demo").innerHTML = answer;

</script>


</body>

</html>
```

The Element Object

The hasAttributes() Method

The body element has attributes:

false

Adding an attribute to the body element, and the result will be true.

removeAttribute

```
<!DOCTYPE html>

<html>

<head>

<style>

.democlass {

  color: red;

}
```

```
</style>
</head>
<body>

<h1 class="democlass">Hello World</h1>

<p id="demo">Click the button to remove the class attribute from the h1 element.</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction() {
  document.getElementsByTagName("H1")[0].removeAttribute("class");
}
</script>

</body>
</html>
```

Hello World

Click the button to remove the class attribute from the h1 element.

Try it

Click try it

removeChild

```
<!DOCTYPE html>
```

```
<html>
<body>
<h1>The Element Object</h1>
<h2>The removeChild() Method</h2>

<p>Click "Remove" to remove the first item from the list:</p>
<button onclick="myFunction()">Remove</button>

<ul id="myList">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

<script>
function myFunction() {
  const list = document.getElementById("myList");
  list.removeChild(list.firstElementChild);
}
</script>

</body>
</html>
```

The Element Object

The removeChild() Method

Click "Remove" to remove the first item from the list:

Remove

- Coffee
- Tea
- Milk

Click remove

appendChild

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
<h2>The appendChild() Method</h2>

<ul id="myList">
  <li>Coffee</li>
  <li>Tea</li>
</ul>

<p>Click "Append" to append an item to the end of the list:</p>

<button onclick="myFunction()">Append</button>

<script>
```

```
function myFunction() {

// Create an "li" node:
const node = document.createElement("li");

// Create a text node:
const textnode = document.createTextNode("Water");

// Append the text node to the "li" node:
node.appendChild(textnode);

// Append the "li" node to the list:
document.getElementById("myList").appendChild(node);
}
</script>

</body>
</html>
```

The Element Object

The appendChild() Method

- Coffee
- Tea

Click "Append" to append an item to the end of the list:

Append

createElement

```
<!DOCTYPE html>
<html>
<body>



<script>
// Create element:
const para = document.createElement("p");
para.innerText = "This is a paragraph.";

// Append to body:
document.body.appendChild(para);
</script>

</body>
</html>
```

Output:

This is a paragraph.

createTextNode

```
<!DOCTYPE html>
<html>
<body>



<script>
```

```
const textNode = document.createTextNode("Hello World");
document.body.appendChild(textNode);
</script>

</body>
</html>
```

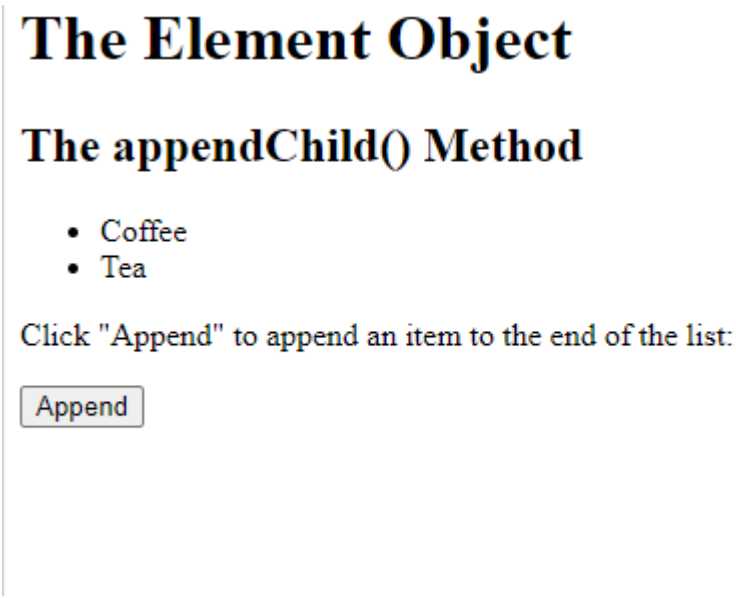
Output:

Hello World

appenChild

```
<!DOCTYPE html>
<html>
<body>
<h1>The Element Object</h1>
<h2>The appendChild() Method</h2>

<ul id="myList">
  <li>Coffee</li>
  <li>Tea</li>
</ul>

<p>Click "Append" to append an item to the end of the list:</p>

<button onclick="myFunction()">Append</button>

<script>
function myFunction() {
```

```
// Create an "li" node:
const node = document.createElement("li");

// Create a text node:
const textnode = document.createTextNode("Water");

// Append the text node to the "li" node:
node.appendChild(textnode);

// Append the "li" node to the list:
document.getElementById("myList").appendChild(node);
}
</script>

</body>
</html>
```



Click append()