



## Selection Basics

### Obtaining the Selection Object

Use `document.getSelection()` to retrieve the Selection object representing the range of text selected by the user or the current position of the caret.

```
var selection = document.getSelection();
```

### Selection Object Properties

<code>selection</code> <code>.anchorNode</code> <code>e</code>	The node in which the selection begins.
<code>selection</code> <code>.anchorOffset</code> <code>set</code>	The offset into the <code>anchorNode</code> at which the selection begins.
<code>selection</code> <code>.focusNode</code> <code>e</code>	The node in which the selection ends.
<code>selection</code> <code>.focusOffset</code> <code>et</code>	The offset into the <code>focusNode</code> at which the selection ends.
<code>selection</code> <code>.isCollapsed</code> <code>ed</code>	A boolean indicating whether the selection's start and end points are at the same position.
<code>selection</code> <code>.rangeCount</code> <code>t</code>	The number of ranges in the selection.

### Example

```
<p id="myText">This is some text.</p>
<button onclick="getSelectionInfo()">Get Selection Info</button>

<script>
function getSelectionInfo() {
    var sel = document.getSelection();
    console.log('Anchor Node:', sel.anchorNode);
    console.log('Anchor Offset:', sel.anchorOffset);
    console.log('Focus Node:', sel.focusNode);
    console.log('Focus Offset:', sel.focusOffset);
    console.log('Is Collapsed:', sel.isCollapsed);
}
</script>
```

## Manipulating Selections

### Adding and Removing Ranges

<code>selection.addRange(range)</code>	Adds a <code>Range</code> object to the selection.
<code>selection.removeRange(range)</code>	Removes a <code>Range</code> object from the selection.
<code>selection.removeAllRanges()</code>	Removes all ranges from the selection, effectively deselecting everything.

### Creating and Using Ranges

```
var range = document.createRange();
range.setStart(startNode, startOffset);
range.setEnd(endNode, endOffset);

selection.addRange(range);
```

**Example:** Selecting part of a text node.

```
<p id="textContainer">Hello, world!</p>
<button onclick="selectText()">Select 'world'</button>

<script>
function selectText() {
    var textContainer = document.getElementById('textContainer');
    var range = document.createRange();
    range.setStart(textContainer.firstChild, 7);
    range.setEnd(textContainer.firstChild, 12);

    var selection = document.getSelection();
    selection.removeAllRanges();
    selection.addRange(range);
}
</script>
```

## Selection State Manipulation

### Collapsing Selections

<code>selection.collapse(node, offset)</code>	Collapses the selection to a single point at the specified <code>node</code> and <code>offset</code> .
<code>selection.collapseToStart()</code>	Collapses the selection to its start point.
<code>selection.collapseToEnd()</code>	Collapses the selection to its end point.

### Checking Node Containment

```
selection.containsNode(node, partlyContained) - Indicates if the specified node is part of the selection.

• node: The node to check.
• partlyContained (optional): A boolean. If true, the method returns true if part of the node is contained in the selection. If false (default), only returns true if the entire node is contained in the selection.

var isContained = selection.containsNode(element, true);
```

## Advanced Selection Techniques

### Deleting Content from the Document

`selection.deleteFromDocument()` - Deletes the selected content from the document.

```
selection.deleteFromDocument();
```

**Example:** Delete selected text when a button is clicked.

```
<p id="deletableText">Select this text and click delete.</p>
<button onclick="deleteSelected()">Delete Selection</button>
```

```
<script>
function deleteSelected() {
  var selection = document.getSelection();
  selection.deleteFromDocument();
}
</script>
```

### Listening for Selection Changes

Use the `selectionchange` event to monitor changes to the document's selection.

```
document.addEventListener('selectionchange', () => {
  console.log('Selection changed');
  var selection = document.getSelection();
  console.log('Selected text:', selection.toString());
});
```