JS JavaScript
TUTORIAL

Removing Items from a Select Element Conditionally

Summary: in this tutorial, you'll learn how to use JavaScript to remove items from a select element based on a condition.

JavaScript uses the `HTMLSelectElement` class to represent the `<select>` element. To remove an option from a select element, you use the `remove()` method of the `HTMLSelectElement` object.

Suppose the `<select>` element has three `<option>` elements with the corresponding index 0, 1, and 2:

For example:

Value	**Text**	**Index**
A	Item A	0
B	Item B	1
C	Item C	2

When you call the `remove()` method to remove one element, the index will change immediately.

For example, if you remove the second element (`B`) with index 1, the index of the third element (`C`) will become 1:

Value	**Text**	**Index**
A	Item A	0
C	Item C	1

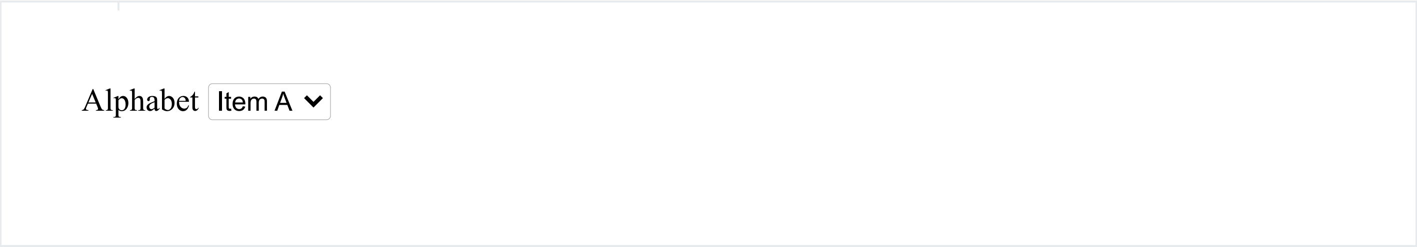
A common mistake is to iterate over the options of a `<select>` element and remove the element inside the loop without being aware that the indices have been adjusted.

For example, the following attempts to remove items with the values `B` and `C`. However, it only removes the item `B` but not `C`.

```
<!DOCTYPE html>
<html lang="en">

    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Demo</title>
    </head>

    <body>
        <label for="list">Alphabet</label>
        <select id="list">
            <option value="A">Item A</option>
            <option value="B">Item B</option>
            <option value="C">Item C</option>
        </select>
        <script>
            const select = document.querySelector('#list')
            for (let i = 0; i < select.options.length; i++) {
                const value = select.options[i].value;
                if (value === 'B' || value === 'C') {
                    select.remove(i);
                    // index of C will become 1 but the value of i is 2
                    // therefore C will be not removed
                }
            }
        </script>
    </body>

</html>
```

Output:

Output



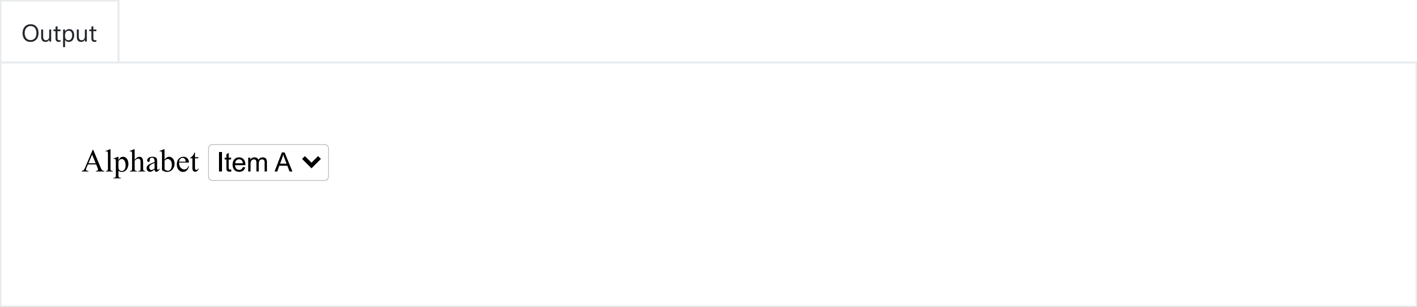
Alphabet Item A

To remove item `C`, you need to decrease the index after removing item `B`. The following example will work properly:

```
<!DOCTYPE html>
<html lang="en">

    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Demo</title>
    </head>

    <body>
        <label for="list">Alphabet</label>
        <select id="list">
            <option value="A">Item A</option>
            <option value="B">Item B</option>
            <option value="C">Item C</option>
        </select>
        <script>
            const select = document.querySelector('#list')
            let indices = []
            for (let i = 0; i < select.options.length; i++) {
                const value = select.options[i].value;
                if (value === 'B' || value === 'C') {
                    select.remove(i);
                    // decrease i by one because the index has been
                    // adjusted
                    i--
                }
            }
        </script>
    </body>
```

```
</html>
```

Output:



Alphabet Item A

A practical example

The following example illustrates how to delete items from a list where the item text ends with the string `js` .

Here’s the project structure:

```
├── css
|   └── style.css
├── js
|   └── app.js
└── index.html
```

index.html

```
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <link rel="stylesheet" href="css/style.css">
        <title>Demo</title>
    </head>
    <body>
        <main>
            <label for="framework">Framework:</label>
            <select id="framework" multiple>
```

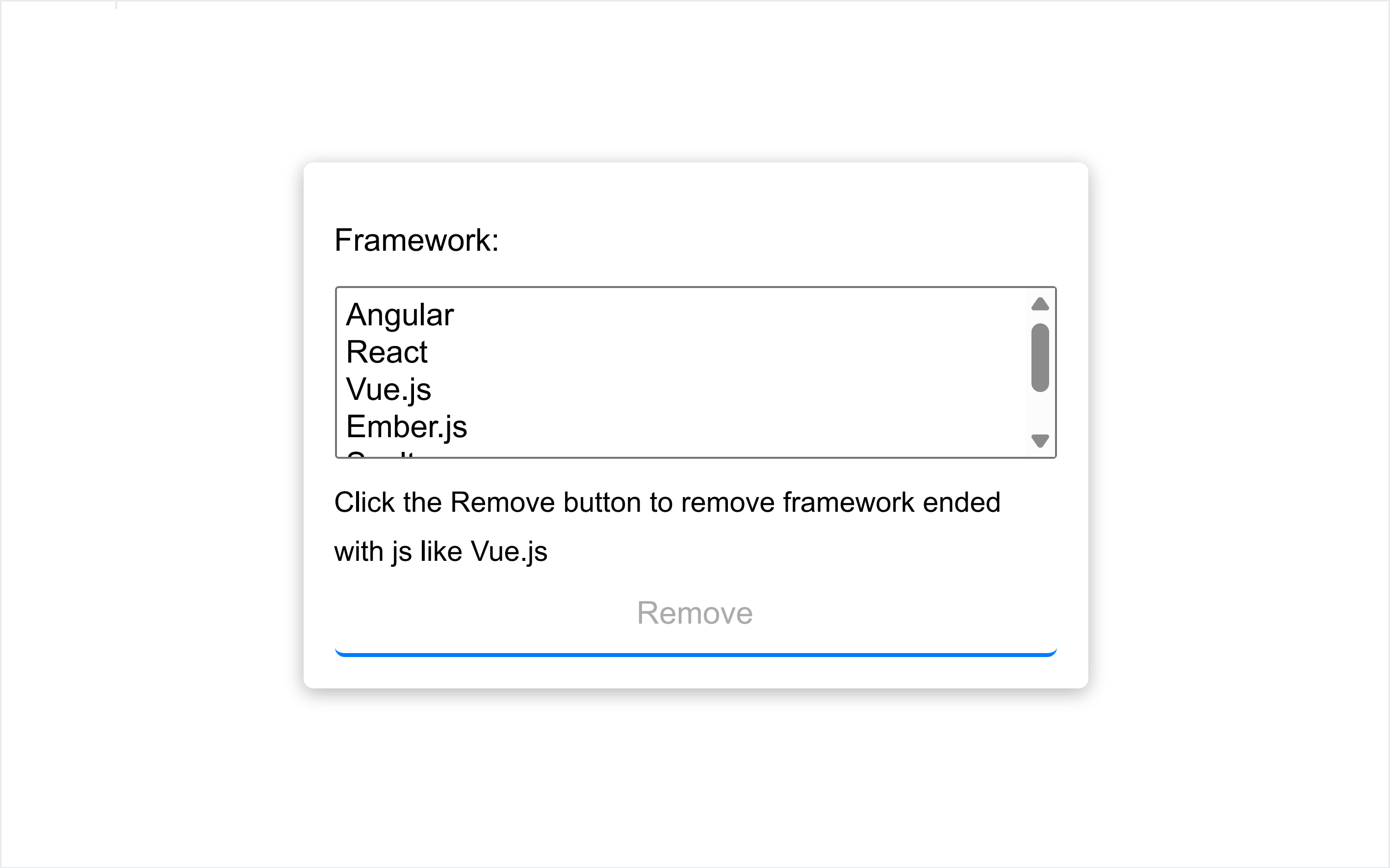
```
                <option value="1">Angular</option>
                <option value="2">React</option>
                <option value="3">Vue.js</option>
                <option value="4">Ember.js</option>
                <option value="5">Svelte</option>
                <option value="6">Next.js</option>
            </select>
            <p>Click the Remove button to remove framework ended with js like Vue.js</p>
            <button class="btn">Remove</button>
        </main>
        <script src="js/app.js"></script>
    </body>
</html>
```

app.js

```
const select = document.querySelector('#framework');
const btn = document.querySelector('.btn');

btn.addEventListener('click', () => {
  for (let i = 0; i < select.options.length; i++) {
    const text = select.options[i].text;
    if (text.endsWith('js')) {
      select.remove(i);
      i--;
    }
  }
});
```

Output:

Output



Framework:

Angular
React
Vue.js
Ember.js

Click the Remove button to remove framework ended with js like Vue.js