



웹 개발

- 웹개발
 - HTML/CSS
 - Javascript
 - DOM

Javascript/HTML/CSS

- Javascript 제어/반복문

`5=='5' // true`

`5==='5' // false`. 문자열인지 숫자인지 타입까지 비교한다.

`5 != '5' // false`

`5 !== '5' // true` // 타입이 다르므로 부정문에선 true이다.

`'cb' > 'ab' // true` // c가 a보다 숫자로 환산하면 2 크기 때문이다.

자바스크립트는 `||`보다 `&&`가 먼저 실행된다.

`2 === 2 || 2 === 3 && 5 === 6 // true`. // `2 === 3 && 5 === 6`이 우선순위라 false지만, `2 === 2`와 `||` 결과 true이므로 true.

```
/* styles.css */

body {
  font-family: sans-serif;
  background-color: rgb(36, 35, 30);
}

form {
  margin: 3rem auto;
  width: 90%;
  max-width: 50rem;
  box-shadow: 0 2px 8px rgba(0, 0, 0, 0.2);
  border-radius: 6px;
  padding: 1rem;
  background-color: rgb(246, 245, 201);
}

.control {
  margin-bottom: 1rem;
}

label {
  display: block;
  font-weight: bold;
  margin-bottom: 0.5rem;
}

input {
  font: inherit;
  font-size: 1.15rem;
  padding: 0.35rem;
  border: 1px solid rgb(204, 204, 204);
  background-color: rgb(252, 249, 233);
  color: rgb(53, 51, 39);
  width: 25rem;
  border-radius: 4px;
  margin-right: 1rem;
}
```

```
vertical-align: middle;
}

input:focus {
  background-color: rgb(253, 245, 196);
}

button {
  font: inherit;
  background-color: rgb(209, 184, 23);
  border: 1px solid rgb(209, 184, 23);
  color: rgb(44, 43, 36);
  border-radius: 4px;
  padding: 0.5rem 1.5rem;
  cursor: pointer;
}

button:hover {
  background-color: rgb(209, 197, 23);
  border-color: rgb(209, 197, 23);
}

#charcount {
  color: rgb(105, 101, 75);
}

input.warning {
  background-color: rgb(248, 191, 145);
}

#remaining-chars.warning {
  color: rgb(211, 109, 26);
}

input.error {
  background-color: rgb(248, 157, 145);
}
```

```
#remaining-chars.error {
  color:rgb(211, 54, 26);
}
```

warning과 error에 관한 색상을 css파일에 추가하였다.

```
/* demo.js */
const productNameInputElement = document.getElementById('productName');
const remainingCharsElement = document.getElementById('remainingChars');

// console.dir(productNameInputElement);

let maxAllowedChars = productNameInputElement.maxLength; // productName의 최대 길이

function updateRemainingCharacters(event) {
  let enteredText = event.target.value; // event: 클릭, 입력등 특정 이벤트
  // target: input에서 사용자가 입력하면, event.target은 input을 가르킨다.
  let enteredTextLength = enteredText.length; // enteredText 함수로 길이 구함

  let remainingCharacters = maxAllowedChars - enteredTextLength;

  remainingCharsElement.textContent = remainingCharacters; // remainingChars에 표시

  if (remainingCharacters === 0) {
    remainingCharsElement.classList.add('error');
    productNameInputElement.classList.add('error');
  }

  else if (remainingCharacters <= 10) {
    remainingCharsElement.classList.add('warning');
    productNameInputElement.classList.add('warning');
  }
  else {
    remainingCharsElement.classList.remove('warning');
    productNameInputElement.classList.remove('warning');
  }
}
```

```
productNameInputElement.addEventListener('input', updateRemaining);  
// 함수를 브라우저로 반응시킴.
```

`if (remainingCharacters === 0)` 을 하면 error 즉 빨간색이 되고,

`else if (remainingCharacters < 10) { remainingCharsElement.classList.add('warning');}` 을 추가
하면 10글자 미만이 남을 시 남은 글자 수가 빨간색으로 변한다.

`productNameInputElement.classList.add('warning');` 을 넣으면 배경색도 빨간색으로 변한다.

```
else {  
  remainingCharsElement.classList.remove('warning');  
  productNameInputElement.classList.remove('warning');  
  //배경과 남은숫자가 10이상이면 다시 검은색으로 원상 복구 된다.
```

결과

A screenshot of a web form titled "Product Name". The input field contains 18 'd' characters. To the right of the input field, the text "2/60" is displayed. Below the input field is a yellow "Submit" button. The background of the form is light yellow.

A screenshot of the same web form titled "Product Name". The input field is now empty and has a red background. To the right of the input field, the text "0/60" is displayed. Below the input field is a yellow "Submit" button. The background of the form is light yellow.

```
const myName = 'haejin';

if (myName === 'haejin') {
  console.log('Hej!')
}

let isLoggedIn = true;
if (!isLoggedIn) { // isLoggedIn이 거짓이라면 User is not logged in을 출력
  console.log('User is NOT logged in!');
}

const enteredUserName = ''; // 0 ← ''으로 되어 있거나 '0'일 경우 자바스크립트에서 0으로 처리
if (enteredUserName) { // 참일 경우이니, 뭔가가 입력되어 있을 경우 `Input is valid!`
  console.log('Input is valid!');
}
```

FOR문

```
for (i=0; i<10; i++) // 기본 증가식
```

```
for (i=0; i<10; i = i+2) // 2씩 증가식
```

FOR of 문

```
const user = ['Haejin', 'Friend', 'Friend2'];
```

```
for (const user of users) {
```

```
  console.log(user);
```

```
} // haejin, friend, friend2가 차례로 출력된다.
```

```
for (let i =0; i<someArray.length; i++) {
```

```
  console.log(someArray[i]);
```

```
}
```

FOR in 문 / PropertyName

```
// loop.js
```

```
for (const user of users) {
```

```
  console.log(user);
```

```
}
```

```
const loggedInUser = {
```

```
  name: 'Haejin',
```

```
  age: 30,
```

```
  isAdmin: true
```

```
};
```

```
for (const propertyName in loggedInUser) {
```

```
  console.log(propertyName);
```

```
  console.log(loggedInUser[propertyName]); // propertyName
```

```
}
```



```
let isFinished = false;

while (!isFinished) {
  isFinished = confirm('Do you want to quit?');
}

console.log('Done!');
```

for 반복문

```
// First Example: Sum numbers

const calculateSumButtonElement = document.querySelector('#calculator button'); // css id 선택자는 #가 붙어야함.

function calculateSum() {
    const userInputInputElement = document.getElementById('user-number');
    const enteredNumber = userInputInputElement.value;

    let sumUpToNumber = 0;

    for (let i = 0; i <= enteredNumber; i++) {

        sumUpToNumber = sumUpToNumber + i;
    }

    const outputResultElement = document.getElementById('calculated-sum');

    outputResultElement.textContent = sumUpToNumber;
    outputResultElement.style.display = 'block';
}

calculateSumButtonElement.addEventListener('click', calculateSum);
```

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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```

<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>JavaScript Loops</title>
<link rel="stylesheet" href="styles.css">
</head>

<body>
<h1>JavaScript Loops in Action</h1>
<section id="calculator">
  <h2>JavaScript Calculator</h2>
  <p>Determine the sum of all numbers (beginning at zero) up to a number of your choice.</p>
  <div class="control">
    <label for="user-number">Your Number</label>
    <input type="number" id="user-number">
  </div>
  <button>Calculate Sum</button>
  <p id="calculated-sum" class="output"></p>
</section>

<section id="highlight-links">
  <h2>Highlight Links</h2>
  <button>Highlight all links in the text</button>
  <p>This is some text that also contains useful links (like <a href="">this one</a> that actually lead nowhere. They lead nowhere because this text and example is <strong>not</strong> about the anchor elements or the link destinations but instead about JavaScript.</p>
  <p>Because you can use <a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript">JavaScript</a> (okay, this link actually <strong>does</strong> lead somewhere) not just for funny demos or useless examples but for real useful things - like highlighting all the links in a text.</p>
  <p>You can dive even deeper into JavaScript with one of our bestselling, deep-dive, JavaScript-focused <a href="https://academind.com/courses/">courses</a>.</p>
</section>

```

```

<section id="user-data">
  <h2>Your Information</h2>
  <button>Display User Data</button>
  <ul id="output-user-data"></ul>
</section>

<section id="statistics">
  <h2>Statistics</h2>
  <p>Test your luck and find out how many dice rolls (1-6 dice) it takes you to roll a certain number (between 1 and 6).</p>
  <div class="control">
    <label for="user-target-number">Your Target Number</label>
    <input type="number" min="1" max="6" id="user-target-number">
  </div>
  <button>Roll the Dice</button>
  <ul id="dice-rolls"></ul>
  <p>It took you <span id="output-total-rolls" class="output">X</span> rolls to roll a <span id="output-target-number" class="output">Y</span>.</p>
</section>
</body>

</html>

```

JavaScript Loops in Action

JavaScript Calculator

Determine the sum of all numbers (beginning at zero) up to a number of your choice.

Your Number

Calculate Sum

15

for-of 반복문

```
// Highlight links

const highlightLinksButtonElement = document.querySelector('#highlight-links')

function highlightLinks() {
  const anchorElements = document.querySelectorAll('#highlight-links a')

  for (const anchorElement of anchorElements) {
    anchorElement.classList.add('highlight')
  }
}

highlightLinksButtonElement.addEventListener('click', highlightLinks);
```

Highlight Links

Highlight all links in the text

This is some text that also contains useful links like [this one](#) that actually lead nowhere. They lead nowhere because this text and example is **not** about the anchor elements or the link destinations but instead about JavaScript.

Because you can use [JavaScript](#) (okay, this link actually **does** lead somewhere) not just for funny demos or useless examples but for real useful things - like highlighting all the links in a text.

You can dive even deeper into JavaScript with one of our bestselling, deep-dive, JavaScript-focused [courses](#).

Highlight Links

Highlight all links in the text

This is some text that also contains useful links like [this one](#) that actually lead nowhere. They lead nowhere because this text and example is **not** about the anchor elements or the link destinations but instead about JavaScript.

Because you can use [JavaScript](#) (okay, this link actually **does** lead somewhere) not just for funny demos or useless examples but for real useful things - like highlighting all the links in a text.

You can dive even deeper into JavaScript with one of our bestselling, deep-dive, JavaScript-focused [courses](#).

