

# Javascript Regular Expressions

- description : Javascript Regular Expressions
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- lastupdate : 2021-04-22

## The source of this article

[Javascript Regular Expressions](#)

(Regular Expression, )

replace

## What is a Regular Expression?

(Regular Expression, )

(text search)

(text replace)

## Syntax

```
/pattern/modifiers;
```

## Example

```
var patt = /w3schools/i;
```

:

/w3schools/i ( )

**w3schools** ( ) .

**i** ( ) (modifier) .

## Using String Methods

JavaScript , search() replace() 가 .

search() , .

replace() .

## Using String search() With a String

search() .

### Example

[ "W3schools" string .

```
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>Search a string for "W3schools", and display the position of the
match.</p>
  <p id="demo"></p>  <!-- 6 -->
  <script>
    let str = "Visit W3Schools!";
    let n = str.search("W3Schools"); /* W3Schools가 ? */
    document.getElementById("demo").innerHTML = n;
  </script>
</body>
</html>
```

## Using String search() With a Regular Expression

### Example

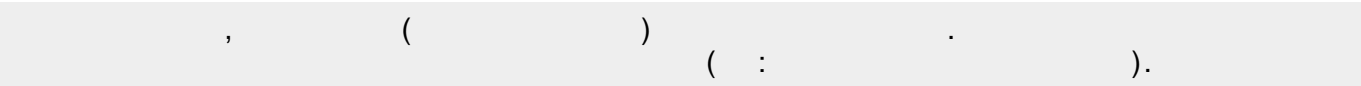
"w3schools" .

```
<!DOCTYPE html>
```



```
<h2>JavaScript Regular Expressions</h2>
<p>Replace "Microsoft" with "W3Schools" in the paragraph below:</p>
<button onclick="myFunction()">Try it</button>
<p id="demo">Please visit Microsoft and Microsoft!</p>
<script>
  function myFunction() {
    let str = document.getElementById("demo").innerHTML;
    let txt = str.replace(/microsoft/i, "W3Schools");
    document.getElementById("demo").innerHTML = txt;
  }
</script>
</body>
</html>
```

## Did You Notice?



## Regular Expression Modifiers

(Modifiers)

Modifier	Description
i	
g	( )
m	.

### Example of i modifier

```
<script>
  function myFunction() {
    let str = "Visit W3Schools";
    let patt1 = /w3schools/i; /* w3schools patt1 */
    let result = str.match(patt1); /* str patt1(result) */
    document.getElementById("demo").innerHTML = result; /* result */
  }
</script>
```

## Example of g modifier

```
<script>
  function myFunction() {
    let str = "Is this all there is?";
    let patt1 = /is/g; /*
    let result = str.match(patt1);
    document.getElementById("demo").innerHTML = result;
  }
```

## Example of m modifier

```
<script>
  function myFunction() {
    let str = "\nIs th\nis it?";
    let patt1 = /^is/m;
    let result = str.match(patt1);
    document.getElementById("demo").innerHTML = result; /* is */
  }
</script>
```

## Regular Expression Patterns

:

Expression	Description
[abc]	.
[0-9]	.
(x y)	alternatives .

## Example of [abc] pattern

```
<script>
  function myFunction() {
    let str = "Is this all there is?";
    let patt1 = /[h]/g;
    let result = str.match(patt1);
    document.getElementById("demo").innerHTML = result; /* h,h */
  }
</script>
```

## Example of [0-9] pattern

```
<script>
```

```
function myFunction() {
    let str = "123456789";
    let patt1 = /[1-4]/g; /* str 1~4 patt1 */
    var result = str.match(patt1); /* patt1 str result */
    document.getElementById("demo").innerHTML = result; /* 1,2,3,4 */
}
</script>
```

### Example of (x|y) pattern

```
<script>
function myFunction() {
    let str = "re, green, red, green, gren, gr, blue, yellow";
    let patt1 = /(red|green)/g;
    let result = str.match(patt1);
    document.getElementById("demo").innerHTML = result; /* green, red, green */
}
</script>
```

## Metacharacters are characters with a special meaning:

Metacharacter( ) :

Metacharacter	Description
\d	(digit) . digit: 0 9 10
\s	(whitespace character)
\b	\ bWORD WORD \ b
\uxxx	16 xxxx .

### Example of Metachatacters ( \d )

```
<script>
function myFunction() {
    let str = "Give 100%!";
    let patt1 = /\d/g; /* \d patt1 */
    let result = str.match(patt1); /* str patt1 result */
    document.getElementById("demo").innerHTML = result; /* 1,0,0 */
}
</script>
```

### Example of Metacharacters ( \s )

```

<script>
  function myFunction() {
    let str = "Is this all there is?";
    let patt1 = /\s/g; /* (whitespace) */
    let result = str.match(patt1);
    document.getElementById("demo").innerHTML = result; /* [" ", " ", " ",
" "] */
    console.log(result, result.length);
  }
</script>

```

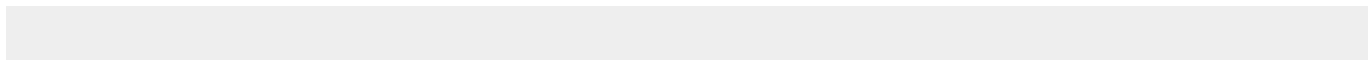
### Exmample of Metacharacters ( \b )

```

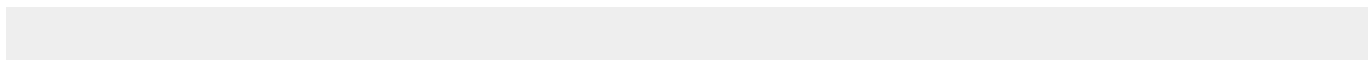
<script>
  let str = "HELLO, LOOK AT YOU!";
  let patt1 = /\bLO/; /* LO */
  let result = str.search(patt1);
  document.getElementById("demo").innerHTML = result; /* Found in
position: 7 */
  console.log(result, result.length); /* 7 undefined */
</script>

```

### Exmample of Metacharacters ( \b )



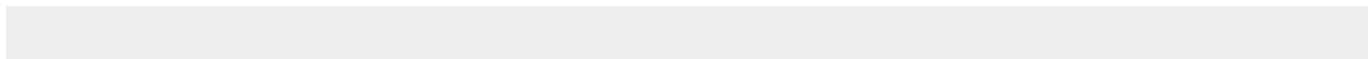
### Example of Metacharacters ( \uxxxx )



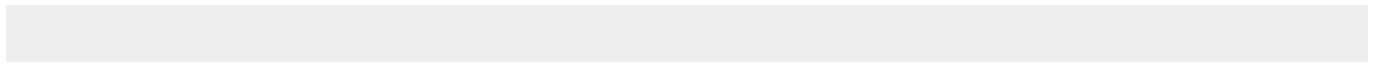
## Quantifiers define quantities

Quantifier	Description
n+	n . n
n*	n 0 .
n?	n 0 1 .

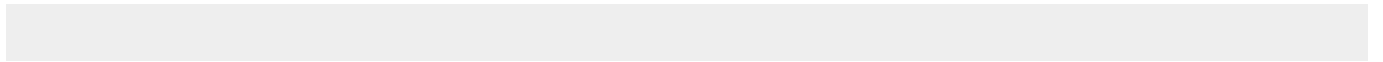
### Example of Quantifiers ( n+ )



## Example of Quantifiers ( n\* )



## Example of Quantifiers ( n? )



## Using the RegExp Object

, [Javascript](#), [Regular](#), [Expressions](#)

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Last update: **2022/03/10 19:52**