JavaScript String Methods

- description : JavaScript String Methods
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[JavaScript String Methods](#)

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String Methods and Properties

"John Doe"								(Primitive values)										(
	).

		JavaScript																,
JavaScript	,														.

String Length

`length`													.

```html
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Properties</h2>
  <p>The length property returns the length of a string</p>
  <p id="demo"></p>
  <script>
    let txt = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";
    let sln = txt.length;
    document.getElementById("demo").innerHTML = sln;
  </script>
</body>
</html>
```

Finding a String in a String

indexOf()   _____(occurrence)   (   )
        .

```html
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>The indexof() method returns the position of the first occurrence of a
specified text:</p>
  <p id="demo"></p>
  <script>
    let str = "Please locate where 'locate' occurs!";
    let pos = str.indexOf("locate");
    document.getElementById("demo").innerHTML = pos;  // 7
  </script>
</body>
</html>
```

%%JavaScript%%   0   .
0   , 1   , 2   …

lastIndexOf()   (   )
        .

```html
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>The lastIndexOf() method returns the positon of the last occurrence of
a specified text:</p>
  <p id="demo"></p>
  <script>
    let str = "Please locate where 'locate' occurs!";
    let pos = str.lastIndexOf('locate');
    document.getElementById("demo").innerHTML = pos;  // 21
  </script>
</body>
</html>
```

        , indexOf()   lastIndexOf()   -1   .

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

```html
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>Both indexOf() and lastIndexOf() returns -1 if the text is not
found:</p>
  <p id="demo"></p>
  <script>
    let str = "Please locate where 'locate' occurs!";
    let pos = str.indexOf("John");
    document.getElementById("demo").innerHTML = pos;  // -1
  </script>
</body>
</html>
```

.

```html
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>The indexOf() method accepts a second parameter as thee starting
position for the search:</p>
  <p id="demo"></p>
  <script>
    let str = "Please locate where 'locate' occurs!";
    let pos = str.indexOf("locate", 15);  //index[15]
    document.getElementById("demo").innerHTML = pos;  // 21
  </script>
</body>
</html>
```

lastIndexOf()   (   )   .
 ,   15   ,   15   ,   .

```html
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>The lastIndexOf() method accepts a second parameter as the stating
position for the search.</p>
  <p>Remember that the lastIndexOf() method searches backwords, so position
15 means start the search at position 15, and search to the beginning.</p>
  <p>Position 15 is position 15 from the beginning</p>
  <p id="demo"></p>
  <script>
    let str = "Please locate where 'locate' occurs!";
    let pos = str.lastIndexOf("locate", 15);
    document.getElementById("demo").innerHTML = pos;  // 7
    console.log(str.length);  // 36
```

```
    console.log(str[15]);      // h
  </script>
</body>
</html>
```

var = str	P	l	e	a	s	e		l	o	c	a	t	e		w	h	e	r	e		'	l	o	c	a	t	e	'		o	c	c	u	r	s	!
Index no	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

Index no : 0 ~ 35 / length : 36

Tip:lastIndexOf()   (index[0]   )
                                    searchValue   .

Searching for a String in a String

search()   ,   .

```
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>The search() method returns the position of the first occurrnece of a
specified text in a string.</p>
  <p id="demo"></p>
  <script>
    let str = "Please locate where 'locate' occurs!";
    let pos = str.search("locate");
    document.getElementById("demo").innerHTML = pos;  // 7
  </script>
</body>
</html>
```

Did You Notice?

        indexOf()   search()   ?

        (   )   ?

                              .   .

- search()   .
- indexOf()   (   )   .

                              .

Extracting String Parts

3 .

- slice(start, end)
- substring(start, end)
- substr(start, length)

The slice() Method

slice() , .

( ) .

7 12 (13-1) .

```html
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</h2>
  <p>The slice() method extract a part of a string and returns the extracted
parts in a new string:</p>
  <p id="demo"></p>
  <script>
    let str = "Apple, Banana, Kiwi";
    let res = str.slice(7, 13); //7-    , 13-    ,    X
    document.getElementById("demo").innerHTML = res;   // Banana
  </script>
</body>
</html>
```

: 0 . 0 .

, .

-12 -6 .

```html
  <script>
    let str = "Apple, Banana, Kiwi";
    let res = str.slice(-12, -6);
    document.getElementById("demo").innerHTML = res;
    console.log(str.length);
  </script>
```

from MDN:

```
str.slice(beginImdex[, endIndex])
```

```
beginIndex:
-
-            , beginIndex = str.length(          ) + beginIndex
-    ) beginIndex = -3         ,           strLength + (-3)
endIndex:
- O
- endIndex                                .
```

,   .

(– >
)

```
<script>
let str = "Apple, Banana, Kiwi";
let res = str.slice(7);
document.getElementById("demo").innerHTML = res;  // Banana, Kiwi
</script>
```

,   .

```
  <script>
    let str = "Apple, Banana, Kiwi";
    let res = str.slice(-12);
    document.getElementById("demo").innerHTML = res;  // Banana, Kiwi
  </script>
```

```
Internet Explorer 8                                        .
```

The substring() Method

```
substring()   slice()              .
```

        substring()   .

```
  <script>
    let str = "Apple, Banana, Kiwi";
    let res = str.substring(7, 13);   // index7      12
    document.getElementById("demo").innerHTML = res;  // Banana
  </script>
```

substring() .

The substr() Method

substr() slice() .

.

```
<script>
  let str = "Apple, Banana, Kiwi";
  let res = str.substr(7, 10);   // index7    10
  document.getElementById("demo").innerHTML = res;  // Banana, Ki
</script>
```

, substr() .

```
<script>
  let str = "Apple, Banana, Kiwi";
  let res = str.substr(8);    // index7
  document.getElementById("demo").innerHTML = res;  // anana, Kiwi
</script>
```

.

```
<script>
  let str = "Apple, Banana, Kiwi";
  let res = str.substr(-8);    // index-8
  document.getElementById("demo").innerHTML = res;  // na, Kiwi
</script>
```

Replacing String Content

replace() ( ) .

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

```
      document.getElementById("demo").innerHTML = txt;
    }
  </script>
</body>
</html>
```

''replace()''   .   .

, replace()   .

```
<!DOCTYPE html>
<html>
<body>
  <h2>JavaScript String Methods</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", "W3Schools");
      document.getElementById("demo").innerHTML = txt;
    }
  </script>
</body>
</html>
```

replace()   .
MICROSOFT   .

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

```
  <P><strong>Note:</strong> Nothing will happen. By default, the replace()
method is case sensitive. Writing MICROSOFT (with upper-case) will not
work.</P>
</body>
</html>
```

, /i ( ) .

```
  <script>
    function myFunction() {
      let str = document.getElementById("demo").innerHTML;
      let txt = str.replace(/MICROSOFT/i, "W3Schools");
      document.getElementById("demo").innerHTML = txt;
    }
  </script>
```

.

, /g ( ) .

```
  <script>
    function myFunction() {
      let str = document.getElementById("demo").innerHTML;
      let txt = str.replace(/Microsoft/g, "W3Schools");
      document.getElementById("demo").innerHTML = txt;
    }
  </script>
```

global match & case-insensitive

```
  <script>
    function myFunction() {
      let str = document.getElementById("demo").innerHTML;
      let txt = str.replace(/MiCROSOFT/gi, "W3Schools");
      document.getElementById("demo").innerHTML = txt;
    }
  </script>
```

Converting to Upper and Lower Case

toUpperCase() .

```
<!DOCTYPE html>
```

```html
<html>
<body>
  <p>Convert string to upper case:</p>
  <button onclick="myFunction()">Try it</button>
  <p id="demo">Bonjour le Monde</p>
  <script>
    function myFunction() {
      let text = document.getElementById("demo").innerHTML;
      document.getElementById("demo").innerHTML = text.toUpperCase();
    }
  </script>
</body>
</html>
```

toLowerCase()   .

```html
  <script>
    function myFunction() {
      let text = document.getElementById("demo").innerHTML;
      document.getElementById("demo").innerHTML = text.toLowerCase();
    }
  </script>
```

The concat() Method

concat()   .

```html
<script>
    let text1 = "Impossible is";
    let text2 = "Nothing";
    let text3 = text1.concat(" ", text2);  // // text1+    +text2
    document.getElementById("demo").innerHTML = text3;  // Impossible is
Nothing
  </script>
```

            concat()   .   .

```javascript
var text = "Hello" + " " + "World!";
var text = "Hello".concat(" ", "World!");
```

                                          .   .
            :   (immutable)   :   ,   .

String.trim()

trim()   .

```
<script>
  function myFunction() {
    let str = "        Hello World!         ";
    alert(str.trim());
  }
</script>
```

```
Internet Explorer 8              trim ()                                          .
```

IE 8   ,   replace()   .

```
<script>
  let str = "       Hello World!       ";
  alert(str.replace(/^[\s\uFEFF\xA0]+|[\s\uFEFF\xA0]+$/g, ''));
</script>
```

  replace   JavaScript String.prototype
 .

```
<script>
  if (!String.prototype.trim) {
    String.prototype.trim = function () {
      return this.replace(/^[\s\uFEFF\xA0]+|[\s\uFEFF\xA0]+$/g, '');
    };
  }
  let str = "      Hello World!      ";
  alert(str.trim());
</script>
```

JavaScript String Padding

ECMAScript 2017   String   padStart   padEnd
                    .
MDN   :   ,
     .
                        (   )   .

str.padStart(targetLength [, padString])

- targetLength :   .

padString(   )

-   .
                        .   "".(U+0020)

```
<script>
  let str = "5";
  str = str.padStart(4, 0);
  document.getElementById("demo").innerHTML = str;  // 0005
</script>
```

```
<script>
  let str = "321";
  str = str.padEnd(4, 0);
  document.getElementById("demo").innerHTML = str;  // 3210
</script>
```

Internet Explorer   .

Firefox   Safari   JavaScript   .

Extracting String Characters

                                              .

- charAt(position)
- charCodeAt(position)
-                  []

The charAt() Method

charAt()   (   )   .

```
<script>
  let str = "HELLO WORLD";
  document.getElementById("demo").innerHTML = str.charAt(6);  // W
</script>
```

The charCodeAt() Method

charCodeAt()   .

UTF-16   (O   65535   )   .

```
  <script>
    let str = "HELLO WORLD";
    document.getElementById("demo").innerHTML = str.charCodeAt(0);  // 72
  </script>
```

Property Access

ECMAScript 5 (2009)   [ ]   .

```
  <script>
    let str = "HELLO WORLD";
    document.getElementById("demo").innerHTML = str[8];  // returns R
  </script>
```

```
                                                    .
* Internet Explorer 7                                           .
*                              (                        ).
*              , %%[]%%    %%undefined%%              , %%charAt()%%
   .
*              . %%str[0] = "A"%%                                    !
```

```
<script>
let str = "HELLO WORLD";
str[0] = "A";      // Gives no error, but does not work
str[0];           // returns H
</script>
```

                               ,   .

Converting a String to an Array

split()   .

(separator)   ,   [O]   .\\ Fix Me!
                 " "   ,   .

Complete String Reference

, Complete JavaScript String Reference   .

.

, Javascript, String, Methods