

Explain with examples the remaining methods of String and Array

Splicing an Array

The `splice()` method can be used to add new items to an array:

```
var fruits          =      ["Banana", "Orange", "Apple", "Mango"];  
fruits.splice(2, 0, "Lemon", "Kiwi");
```

Using splice() to Remove Elements

With clever parameter setting, you can use `splice()` to remove elements without leaving "holes" in the array:

```
var fruits          =      ["Banana", "Orange", "Apple", "Mango"];  
fruits.splice(0, 1);
```

Merging (Concatenating) Arrays

The `concat()` method creates a new array by merging (concatenating) existing arrays:

```
var myGirls          =      ["Cecilie", "Lone"];  
var myBoys           =      ["Emil", "Tobias", "Linus"];  
var myChildren = myGirls.concat(myBoys);
```

Slicing an Array

The `slice()` method slices out a piece of an array into a new array.

```
var fruits          =      ["Banana", "Orange", "Lemon", "Apple", "Mango"];  
var citrus = fruits.slice(1);
```

Automatic toString()

JavaScript automatically converts an array to a comma separated string when a primitive value is expected.

This is always the case when you try to output an array.

```
var fruits          = ["Banana", "Orange", "Apple", "Mango"];  
document.getElementById("demo").innerHTML = fruits.toString();
```

String Length

The `length` property returns the length of a string:

```
var txt              = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";  
var sln = txt.length;
```

Finding a String in a String

The `indexOf()` method returns the index of (the position of) the `first` occurrence of a specified text in a string:

Example

```
var str      = "Please locate where 'locate' occurs!";  
var pos = str.indexOf("locate");
```

The `lastIndexOf()` method returns the index of the **last** occurrence of a specified text in a string:

Example

```
var str      = "Please    locate    where    'locate'    occurs!";  
var pos = str.lastIndexOf("locate");
```

Searching for a String in a String

The `search()` method searches a string for a specified value and returns the position of the match:

Example

```
var str      = "Please    locate    where    'locate'    occurs!";  
var pos = str.search("locate");
```

The slice() Method

`slice()` extracts a part of a string and returns the extracted part in a new string.

The method takes 2 parameters: the start position, and the end position (end not included).

This example slices out a portion of a string from position 7 to position 12 (13-1):

Example

```
var str      = "Apple,          Banana,          Kiwi";  
var res = str.slice(7, 13);
```

The substring() Method

`substring()` is similar to `slice()`.

The difference is that `substring()` cannot accept negative indexes.

Example

```
var str          = "Apple,          Banana,          Kiwi";  
var res = str.substring(7, 13);
```

The substr() Method

`substr()` is similar to `slice()`.

The difference is that the second parameter specifies the **length** of the extracted part.

Example

```
var str          = "Apple,          Banana,          Kiwi";  
var res = str.substr(7, 6);
```

Replacing String Content

The `replace()` method replaces a specified value with another value in a string:

Example

```
str          = "Please          visit          Microsoft!";  
var n = str.replace("Microsoft", "W3Schools");
```

Converting to Upper and Lower Case

A string is converted to upper case with `toUpperCase()`:

Example

```
var text1 = "Hello World!"; // String
var text2 = text1.toUpperCase(); // text2 is text1 converted to upper
```

The concat() Method

`concat()` joins two or more strings:

Example

```
var text1 = "Hello";
var text2 = "World";
var text3 = text1.concat(" ", text2);
```

`String.trim()`

The `trim()` method removes whitespace from both sides of a string:

Example

```
var str = " Hello World! ";
alert(str.trim());
```

The charAt() Method

The `charAt()` method returns the character at a specified index (position) in a string:

Example

```
var str = "HELLO WORLD";  
str.charAt(0);
```

Converting a String to an Array

A string can be converted to an array with the `split()` method:

Example

```
var txt = "a,b,c,d,e"; // String  
txt.split(","); // Split on commas  
txt.split(" "); // Split on spaces  
txt.split("|");
```