Strings

1) Formatting strings

2) Joining and splitting strings

3) Comparing strings

4) Matching and replacing substrings with string functions

5) String Predefined Properties and methods

Syntax

```
var txt = new String("string");
or more simply:
var txt = "string";
```

1. Formatting strings

Trimming Strings: trim()

trim() —

Removes whitespace from both ends of a string

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

2. Joining and splitting strings with string functions

Using split() and join()

split — Split a string into an array of substrings:
Example:-

```
<p id="demo">Click the button to display the array values after the split.</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var str="How are you doing today?";
var n=str.split(" ");
document.getElementById("demo").innerHTML=n;
}
</script>
```

join — Join the elements of an array into a string:

```
<p id="demo">Click the button to join the array elements into a string.</p>
```

```
<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var fruits = ["Banana", "Orange", "Apple", "Mango"];
var x=document.getElementById("demo");
x.innerHTML=fruits.join();
}
</script>
```

Using substr()
substr — Extract parts of a string:

Example:-
```
<p id="demo">Click the button to extract parts of the string.</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var str="Hello world!";
var n=str.substr(1,4);
document.getElementById("demo").innerHTML=n;
}
</script>
```

substring

Example:-

```
<p id="demo">Click the button to extract characters from the string.</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var str="Hello world!";
var n=str.substring(1,4);
document.getElementById("demo").innerHTML=n;
}
</script>
```

3. Comparing strings

localeCompare() helps sort string values

localeCompare() method takes the string to compare to.

localeCompare() returns one of three values:

If the String object comes alphabetically before the string argument, a negative number is returned.

If the String object is equal to the string argument, 0 is returned.

If the String object comes alphabetically after the string argument, a positive number is returned.

```
var oStringObject = new String("yellow");
alert(oStringObject.localeCompare("brick"));     //outputs "1"
alert(oStringObject.localeCompare("yellow"));    //outputs "0"
alert(oStringObject.localeCompare ("zoo"));      //outputs "-1"
```

Testing String Length
Example:-
```
var txt = "Hello World!";
document.write(txt.length);
```

4. Matching and replacing substrings with string functions

Finding Strings in Strings:

replace—
Example:-

```
<p>Click the button to replace "name" with "" in the paragraph below:</p>

<p id="demo">name@example.com</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var str=document.getElementById("demo").innerHTML;
var n=str.replace("name","");
document.getElementById("demo").innerHTML=n;
}
</script>
```

Finding the Position of a Substring:

indexOf()
Example:-
```
<p id="demo">Click the button to locate where in the string a specifed value occurs.</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var str="Hello world, welcome to the universe.";
var n=str.indexOf("welcome");
document.getElementById("demo").innerHTML=n;
}
</script>
```

lastIndexOf()
Example:-
```
<p id="demo">Click the button to locate the last occurance of a specified value.</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var str="Hello planet earth, you are a great planet.";
var n=str.lastIndexOf("planet");
document.getElementById("demo").innerHTML=n;
}
</script>
```

Replacing Substrings: replace

```
<p id="demo">Visit Microsoft!</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction()
{
var str = document.getElementById("demo").innerHTML;
var res = str.replace("Microsoft","Google");
document.getElementById("demo").innerHTML=res;
}
</script>
```

toLowerCase() - Converts a string to lowercase letters

Example:

```
<p id="demo">Click the button to convert the string to lowercase letters.</p>

<button onclick="myFunction()">Try it</button>

<script>

function myFunction(){

var str = "Hello World!";

var res = str.toLowerCase();

document.getElementById("demo").innerHTML=res;

}

</script>
```

toUpperCase()- Converts a string to uppercase letters

<button onclick="myFunction()">Try it</button>

<script>

function myFunction(){

var str = "Hello World!";

var res = str.toUpperCase();

document.getElementById("demo").innerHTML=res;

}

</script>

6) **String Predefined Properties and methods**

String Object Properties

Property	Description
constructor	Returns the function that created the String object's prototype
length	Returns the length of a string
prototype	Allows you to add properties and methods to an object

String Object Methods

Method	Description
charAt()	Returns the character at the specified index
charCodeAt()	Returns the Unicode of the character at the specified index
concat()	Joins two or more strings, and returns a copy of the joined strings
fromCharCode()	Converts Unicode values to characters
indexOf()	Returns the position of the first found occurrence of a specified value in a string
lastIndexOf()	Returns the position of the last found occurrence of a specified value in a string
localeCompare()	Compares two strings in the current locale
match()	Searches for a match between a regular expression and a string, and returns the matches
replace()	Searches for a match between a substring (or regular expression) and a string, and replaces the matched substring with a new substring
search()	Searches for a match between a regular expression and a string, and returns the position of the match
slice()	Extracts a part of a string and returns a new string
split()	Splits a string into an array of substrings
substr()	Extracts the characters from a string, beginning at a specified start position, and through the specified number of character

substring()	Extracts the characters from a string, between two specified indices
toLocaleLowerCase()	Converts a string to lowercase letters, according to the host's locale
toLocaleUpperCase()	Converts a string to uppercase letters, according to the host's locale
toLowerCase()	Converts a string to lowercase letters
toString()	Returns the value of a String object
toUpperCase()	Converts a string to uppercase letters
trim()	Removes whitespace from both ends of a string
valueOf()	Returns the primitive value of a String object