

Javascript

Page No.

Date: / /

- * output function: $\rightarrow$ document.write (" ");
- * Console.log (" ");
- * Declaration of variable's $\Rightarrow$ var x = 10;
- * alert (); OK
- * Confirm (); OK or Cancel
- * document.write (" ");
- * Prompt (" "); User's input a

* J.S Document object method function.

- 1] document.getElementById()
- 2] document.getElementsByClassName()
- 3] innerHTML()

* Variables

- Var
 - Let
 - Const
- 1) var x = ; (can declared many times)
 - 2) let x = ; (can't be declared twice)
 - 3) const x = ; ($\downarrow$)

* Data types:

var x = "Hello world"; String
var x = 25; Number
var x = true or false; Boolean
var x = ["HTML", "CSS", "JS"]; Array
var x = {first: "M", last: "G"}; Object
var x = Null; Null
var x; undefined

=== (same value and same data type)
!== (different value and different data type)

* If Statement:
if (condition) {
 statement
}

* Conditional ternary operator
(condition) ? True statement : False statement.

* Functions Syntax
function functionName() {
 statement;
}

functionName(); :-> calling a function

* Event handling Syntax:

<button onclick = "functionname()"></button>
<p onmouseenter = "functionname()"></p>

★ JS Basic Event's:

- 1) Click onclick
- 2) Double click ondblclick
- 3) Right click oncontextmenu
- 4) Mouse Hover onmouseover
- 5) Mouse out onmouseout
- 6) Mouse Down onmousedown
- 7) Mouse Up onmouseup
- 8) Key Press (in form & body) onkeypress
- 9) Key Up onkeyup
- 10) Load onload
- 11) unload onunload
- 12) Resize onresize
- 13) Scroll onscroll

★ Array's

var a = [10, 20, 30];

var a = new Array(); {Constructing new array}

★ Syntax of multidimensional array.

var a = [

(index 0) (index 1) (index 2) (index 3)

["Mahesh", 18, "Male", "B.E"]

(index 1) [, , ,]

(index 2) [, , ,]

]

★ Javascript Array Method's

- 1] `Sort()` $\Rightarrow$ use for alphabetical order
`Arrayname.sort()`;
- 2] `Reverse()` $\Rightarrow$ Reverse the array order
`Arrayname.reverse()`;
- 3] `Pop()` $\Rightarrow$ Delete the last array value
- 4] `Push()` $\Rightarrow$ Add new array value at last.
- 5] `Shift()` $\Rightarrow$ Delete the 1st array value
- 6] `Unshift()` $\Rightarrow$ Add new array value at first.
- 7] `Concat()` $\Rightarrow$ Merge two different Array.
`a = [array 1], b = [array 2]`
 $\therefore c = a.concat(b)$
- 8] `Join()` $\Rightarrow$ give's break, slash, dash, etc.
`Array name.join(" - ")`;
- 9] `Slice()` $\Rightarrow$ Create small array from big array.
`Arrayname.slice(start, end)`
- 10] `Splice()` $\Rightarrow$
`Splice (index, howmany, "new value" delete)`

11) isArray();

12) indexOf(); $\Rightarrow$ gives existence of value.
indexOf("search item", start);

13) lastIndexOf();

14) includes(); $\Rightarrow$ Search the value. (T/F)

15) Some(); $\Rightarrow$ check the condition (T/F)
for any one value.

16) every(); $\Rightarrow$ check the condition for every value.

17) find(); $\Rightarrow$ Return first element in array.
find(function name);

18) filter(); $\Rightarrow$ create's new array of elements which
passes the condition.

19) toString(); $\Rightarrow$ Convert array into string

20) fill(); $\Rightarrow$ Fill all element with static value

21) forEach(); $\Rightarrow$

* Object's:→ (Advanced Array)

```
Var a = { name: 'Mahesh',  
          age: 18,  
          email: 'xyz@gmail.com'  
        }
```

```
document.write (a.name);
```

* Creating an object:→

```
Var mahesh = new object();  
mahesh.age = '18';  
document.write(mahesh.age);
```

* Array of object

```
Var student = [  
                {name: 'Ram', age: 15},  
                {name: 'Mahesh', age: 14}  
            ];  
document.write(student);
```

* Const with array & object.

i] ~~const~~ a = [x, y, z]
a[2] = 'M'; ⇒ changing array value.

ii] const a = { name: "Mahesh" };
a.name = "Ram"; ⇒ changing object value.

* For / in loop

```
for ( var key in obj ) {  
    document.write (key + obj[key]);  
}
```

* Map () function in Array:

```
var arr = [1, 3, 5];  
var b = arr.map (function name);  
document.write (b);  
function functionname (x) {  
    return x * 10;  
}  
∴ var b = [10, 30, 50];
```

* JS String Methods.

- 1] .length ⇒ Give's no. of character's.
- 2] .toLowerCase() ⇒ Convert all character's in small.
- 3] .toUpperCase() ⇒ Capital letter's.
- 4] .includes (" " ^{1st}) ⇒ Search the existence of word.
- 5] .startsWith ("word") ⇒ check the 1st word.
- 6] .endsWith ("word" ^{last}) ⇒ check the last word.
- 7] .search (" ") ⇒ Position of word in number.
- 8] .match ()
- 9] .indexOf (" ") ⇒ index of 1st found word.
- 10] .lastIndexOf (" ") ⇒ search from last and give ✓
- 11] .replace (" " ^{word}) ⇒ replace ("before, after" ^{replace word});
- 12] .trim() ⇒ remove extra space's
- 13] .charAt (n); ⇒ return character at n
↳ index value.
- 14] .charCodeAt (n); ⇒ give's skycode of character
- 15] String.fromCharCode (m); ⇒ give's character of m skycode.

- 16] .Concat() $\Rightarrow$ merge two string
- 17] .split() $\Rightarrow$ split the string
- 18] .Repeat(n) $\Rightarrow$ Repeat the string n times.
- 19] .slice() $\Rightarrow$
- 20] .Substr(n) $\Rightarrow$ Return string from n^{th} position
- 21] .Substring(,)
- 22] .toString() = convert's to string.
- 23] .valueOf() =

★ JS Number method.

- 1] Number () $\Rightarrow$ Convert's to number.
- 2] parseInt () $\Rightarrow$ Convert's to integer.
- 3] parseFloat () $\Rightarrow$ Convert's to float
- 4] isFinite ();
- 5] isInteger ();
- 6] .toFixed ();
- 7] .toPrecision ();

★ JS Math methods

- 1] Math.ceil(n) $\Rightarrow$ give's nearest biggest value.
- 2] Math.floor(n) $\Rightarrow$ give's nearest small value.
- 3] Math.round ();
- 4] Math.trunc () $\Rightarrow$ give's integer value
- 5] Math.max(n₁, n₂, ..., n_n) $\Rightarrow$ give max num from n...
- 6] Math.min(n₁, n₂, ..., n_n) $\Rightarrow$ give min num from n...
- 7] sqrt(n) $\Rightarrow$ give square root of n
- 8] Math.cbrt(m) $\Rightarrow$ give cube root of m
- 9] pow(x, y) $\Rightarrow$ x^y

- 10] `Math.random()` = Give's random number.
- 11] `Math.abs(x)` = Give absolute value of x
- 12] `Math.PI` = 3.14

★ JS Date Method

Var now = `new Date()`;

- 1] `now.toDateString()`
- 2] `now.getDate()`
- 3] `now.getFullYear()`
- 4] `now.getMonth()`
- 5] `now.getDay()`
- 6] `now.getHours()`
- 7] `now.getMinutes()`
- 8] `now.getSeconds()`
- 9] `now.getMilliseconds()`
- 10] `now.setDate()`
- 11] `now.setFullYear()`
- 12] `now.setMonth()`
- 13] `now.setDay()`
- 14] `now.setHours()`
- 15] `now.setMinutes()`
- 16] `now.setSeconds()`
- 17] `now.setMilliseconds()`

* Document object module

1] Targeting Dom object:

- Id $\Rightarrow$ document.getElementById()
- Class $\Rightarrow$ document.getElementsByClassName()
- Tag $\Rightarrow$ document.getElementsByTagName()

2] Get Value methods:

- a) .innerText;
- b) .innerHTML;
- c) .getAttribute(" ");
- d) .getAttributeNode(" ");
- e) .Attributes[];

3] Set Value methods:

- 1] .innerText;
- $\Rightarrow$ document.getElementById(" ").innerText = "M"
- New value
 $\downarrow$

2] .innerHTML;

3] .setAttribute

- $\Rightarrow$ document.getElementById(" ").setAttribute(" ", Attribute name)

4. Attribute

5. .removeAttribute(" ");
- Attribute name $\swarrow$

★ document.getElementById().onclick = functionname)

Page No.

Date:

★ .querySelector

⇒ document.querySelector(" ");

★ .querySelectorAll

⇒ document.querySelectorAll(" ");

★ CSS styling Method.

1] .style

⇒ document.querySelector(" ").style[stylename];

2] .className

3] .classList

★ AddEventListener() Method;

document.getElementById().addEventListener -

(addEventListener(event, function, use capture);

★ DOM Traversal Methods:

1] parentElement

2] parentNode

3] children[n], n = index.

4] childNodes[n]

5] firstElementChild

6] lastElementChild

7] childNodes

8] firstChild

9] lastChild

- 10) next Element Sibling
- 11) previous Element Sibling
- 12) ~~next~~ sibling
- 13) previous sibling

* DOM Create method

Tag
↓

Text
↓

Comment
↓

CreateElement(); createTextNode(); createComment;

* DOM Append Method:

* appendChild ()

* insertBefore ()