# JavaScript Cheatsheet

## **JavaScript Basics**

Set of JavaScript basic syntax to add, execute and write basic programming paradigms in Javascript

#### On Page Script

Adding internal JavaScript to HTML

```
<script type="text/javascript"> //JS code goes here </script>
```

#### **External JS File**

Adding external JavaScript to HTML

```
<script src="filename.js"></script>
```

#### **Functions**

JavaScript Function syntax

```
function nameOfFunction () {
// function body
```

#### **DOM Element**

Changing content of a DOM Element

```
document.getElementById("elementID").innerHTML = "Hello World!";
```

#### Output

This will print the value of a in JavaScript console

```
console.log(a);
```

#### **Conditional Statements**

Conditional statements are used to perform operations based on some conditions.

#### **If Statement**

The block of code to be executed, when the condition specified is true.



#### **If-else Statement**

If the condition for the if block is false, then the else block will be executed.

```
if (condition) {
  // block of code to be executed if the condition is true
} else {
  // block of code to be executed if the condition is false
}
```

#### **Else-if Statement**

A basic if-else ladder

```
if (condition1) {
  // block of code to be executed if condition1 is true
} else if (condition2) {
  // block of code to be executed if the condition1 is false and condition2 is true
} else {
  // block of code to be executed if the condition1 is false and condition2 is false
}
```

#### **Switch Statement**

Switch case statement in JavaScript

```
switch(expression) {
  case x:
  // code block
  break;
  case y:
  // code block
  break;
  default:
  // code block
}
```

## **Iterative Statements (Loops)**

Iterative statement facilitates programmer to execute any block of code lines repeatedly and can be controlled as per conditions added by the programmer.

#### For Loop

For loop syntax in javascript

#### While Loop

Runs the code till the specified condition is true

```
while (condition) {
  // code block to be executed
}
```

### Do While Loop

A do while loop is executed at least once despite the condition being true or false

```
do {
  // run this code in block
  i++;
} while (condition);
```

## **Strings**

The string is a sequence of characters that is used for storing and managing text data.

#### charAt method

Returns the character from the specified index.

```
str.charAt(3)
```

#### concat method

Joins two or more strings together.

```
str1.concat(str2)
```

#### index of method

Returns the index of the first occurrence of the specified character from the string else -1 if not found.

```
str.indexOf('substr')
```

#### match method

Searches a string for a match against a regular expression.

```
str.match(/(chapter \d+(\.\d)*)/i;)
```

## replace method

#### search method

Searches a string against a specified value.

```
str.search('term')
```

## split method

Splits a string into an array consisting of substrings.

```
str.split('\n')
```

## substring method

Returns a substring of a string containing characters from the specified indices.

```
str.substring(0,5)
```

## **Arrays**

The array is a collection of data items of the same type. In simple terms, it is a variable that contains multiple values.

#### variable

Containers for storing data.

```
var fruit = ["element1", "element2", "element3"];
```

#### concat method

Joins two or more arrays together.

```
concat()
```

#### indexOf method

Returns the index of the specified item from the array.

```
indexOf()
```

### join method

Converts the array elements to a string.

Deletes the last element of the array.

pop()

#### reverse method

This method reverses the order of the array elements.

reverse()

#### sort method

Sorts the array elements in a specified manner.

sort()

## toString method

Converts the array elements to a string.

toString()

#### valueOf method

returns the relevant Number Object holding the value of the argument passed

valueOf()

### **Number Methods**

JS math and number objects provide several constant and methods to perform mathematical operations.

## to Exponential method

Converts a number to its exponential form.

toExponential()

#### toPrecision method

Formats a number into a specified length.

toPrecision()

## toString method

Converts an object to a string



Returns the primitive value of a number.

valueOf()

### **Maths Methods**

#### ceil method

Rounds a number upwards to the nearest integer, and returns the result

ceil(x)

## exp method

Returns the value of E^x.

exp(x)

## log method

Returns the logarithmic value of x.

log(x)

## pow method

Returns the value of x to the power y.

pow(x,y)

## random method

Returns a random number between 0 and 1.

random()

## sqrt method

Returns the square root of a number x

sqrt(x)

## **Dates**

Returns the date from the date object

getDate()

### Pulling Day from the Date object

Returns the day from the date object

getDay()

## Pulling Hours from the Date object

Returns the hours from the date object

getHours()

### Pulling Minutes from the Date object

Returns the minutes from the date object

getMinutes()

## Pulling Seconds from the Date object

Returns the seconds from the date object

getSeconds()

## Pulling Time from the Date object

Returns the time from the date object

getTime()

#### **Mouse Events**

Any change in the state of an object is referred to as an Event. With the help of JS, you can handle events, i.e., how any specific HTML tag will work when the user does something.

#### click

Fired when an element is clicked

```
element.addEventListener('click', ()=>{
  // Code to be executed when the event is fired
});
```



```
element.addEventListener('contextmenu', ()=>{
  // Code to be executed when the event is fired
});
```

#### dblclick

Fired when an element is double-clicked

```
element.addEventListener('dblclick', ()=>{
  // Code to be executed when the event is fired
});
```

#### mouseenter

Fired when an element is entered by the mouse arrow

```
element.addEventListener('mouseenter', ()=>{
// Code to be executed when the event is fired
});
```

#### mouseleave

Fired when an element is exited by the mouse arrow

```
element.addEventListener('mouseleave', ()=>{
  // Code to be executed when the event is fired
});
```

#### mousemove

Fired when the mouse is moved inside the element

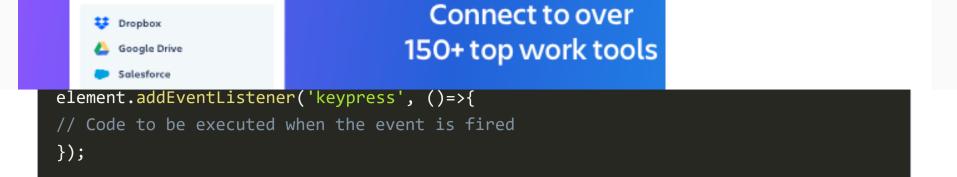
```
element.addEventListener('mousemove', ()=>{
// Code to be executed when the event is fired
});
```

## **Keyboard Events**

## keydown

Fired when the user is pressing a key on the keyboard

```
element.addEventListener('keydown', ()=>{
  // Code to be executed when the event is fired
});
```



### keyup

Fired when the user releases a key on the keyboard

Power-Ups

```
element.addEventListener('keyup', ()=>{
  // Code to be executed when the event is fired
});
```

#### **Errors**

Errors are thrown by the compiler or interpreter whenever they find any fault in the code, and it can be of any type like syntax error, run-time error, logical error, etc. JS provides some functions to handle the errors.

### try and catch

Try the code block and execute catch when err is thrown

```
try {
Block of code to try
}
catch(err) {
Block of code to handle errors
}
```

#### **Window Methods**

Methods that are available from the window object

#### alert method

Used to alert something on the screen

```
alert()
```

#### blur method

The blur() method removes focus from the current window.

Keeps executing code at a certain interval

```
setInterval(() => {
// Code to be executed
}, 1000);
```

#### setTimeout

Executes the code after a certain interval of time

```
setTimeout(() => {
// Code to be executed
}, 1000);
```

#### close

The Window. close() method closes the current window

```
window.close()
```

#### confirm

The window.confirm() instructs the browser to display a dialog with an optional message, and to wait until the user either confirms or cancels

```
window.confirm('Are you sure?')
```

#### open

Opens a new window

```
window.open("https://www.codewithharry.com");
```

#### prompt

Prompts the user with a text and takes a value. Second parameter is the default value

```
var name = prompt("What is your name?", "Harry");
```

## scrollBy

```
window.scrollBy(100, 0); // Scroll 100px to the right
```

#### scrollTo

Scrolls the document to the specified coordinates.

Clears the setInterval. var is the value returned by setInterval call

clearInterval(var)

#### clearTimeout

Clears the setTimeout. var is the value returned by setTimeout call

clearTimeout(var)

#### stop

Stops the further resource loading

stop()

## **Query/Get Elements**

The browser creates a DOM (Document Object Model) whenever a web page is loaded, and with the help of HTML DOM, one can access and modify all the elements of the HTML document.

## querySelector

Selector to select first matching element

document.querySelector('css-selectors')

## querySelectorAll

A selector to select all matching elements

document.querySelectorAll('css-selectors', ...)

## get Elements By Tag Name

Select elements by tag name

document.getElementsByTagName('element-name')

## Get Element by Id

Select an element by its id

document.getElementById('id')

## **Creating Elements**

Create new elements in the DOM

#### createElement

Create a new element

document.createElement('div')

#### createTextNode

Create a new text node

document.createTextNode('some text here')

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