HTML CheatSheet

Attributes ✏️

SYNTAX

```
<tag attributename="value" />
```
- lowecase attributes, quote values

Global attributes

accesskey, class, contenteditable, data-*, dir, draggable, hidden, id, lang, spellcheck, style, tabindex, title

```
<div id="demo" class="big" dir="ltr" lang="en"
style="color: red;" tabindex="0" title="Tooltip"
contenteditable="true" spellcheck="true"
data-htmlcheat="99">Hello World!</div>
```

Internationalization: dir, lang, xml:lang

```
<html lang="en-US">
...
    <p dir="rtl">Right to left (Arabic)</p>
...
</html>
```

Link: download, href, hreflang, media, rel, target, type

```
<a href="https://htmlg.com/" target="_blank" rel="e
    Link
</a>
```

Image: src, alt, height, ismap, longdesc, src, srcset, usemap, width

```
<img src="/demo.jpg" alt="description"
height="48" width="100" longdesc="desc.txt" />
```

All attributes

accept
  form, input
accept-charset
  form
accesskey
  Global attribute
action
  form
align
  applet, caption, col, colgroup, hr, iframe,
  img, table, tbody, td, tfoot , th, thead, tr
alt
  applet, area, img, input
async
  script
autocomplete
  form, input
autofocus
  button, input, keygen, select, textarea
autoplay

Head Tags 🤓

```
<!doctype html>
<html lang="en" class="no-js">
<head>
    <meta charset="utf-8">
    <meta http-equiv="x-ua-compatible" content="ie=
```

Tags 🏷️

Div Section

```
<div>Block element</div>
```

Headings

```
<h1>Page title</h1>
<h2>Subheading</h2>
<h3>Tertiary heading</h3>
<h4>Quaternary heading</h4>
```

Paragraph

```
<p style="text-align: center;">text</p>
```

Image

```
<img src="/demo.jpg" alt="description" height="48'
```

Outbound Link

Get your online assignment help at Copycrafter professional writing service.

```
<a href="https://htmlg.com/" target="_blank" rel='
```

Mailto link

```
<a href="mailto:me@ruwix.com?Subject=Hi%20mate" to
```

Inner anchor (jump on page)

```
<a href="#footer">Jump to footnote</a>
<br />
<a name="footer"></a>Footnote content
```

Bold text

```
<strong>Bold text</strong>
```

Italic text

```
<em>Italic text</em>
```

Underlined text

```
<span style="text-decoration: underline;">Underlir
```

Iframe

```
<iframe src="link.html" width="200" height="200🖉
</iframe>
```

Abbreviation

```
<abbr title="Hypertext Markup Language">HTML</abbr
```

Comment

```
<!-- HTML
Comment -->
```

Horizontal Line

```
<hr />
```

Line break

```
<br />
```

Quotation

```
<q>Success is a journey not a destination.</q>
```

```html
<meta name="viewport" content="width=device-wid
<link rel="canonical" href="https://htmlcheatsh
<title>HTML CheatSheet</title>
<meta name="description" content="A brief page
<meta name="keywords" content="html,cheatsheet"
<meta property="fb:admins" content="YourFaceboo
<meta property="og:title" content="HTML CheatSh
<meta property="og:type" content="website" />
<meta property="og:url" content="https://htmlch
<meta property="og:image" content="https://html
<meta property="og:description" content="A brie
<link rel="apple-touch-icon" href="apple-touch-
<link rel="alternate" hreflang="es" href="https
<link rel="stylesheet" href="/styles.css">
<script src="/script.js"></script>
</head>
```

HTML5 Page Structure 🛒

header, nav, main, article, section, aside, footer, address

```html
<header>
    <div id="logo">HTML</div>
    <nav>
        <ul>
            <li><a href="/">Home</a>
            <li><a href="/link">Page</a>
        </ul>
    </nav>
</header>
<main role="main">
    <article>
        <h2>Title 1</h2>
        <p>Content 1</p>
    </article>
    <article>
        <h2>Title 2</h2>
        <p>Content 2</p>
    </article>
</main>
<section>
    A group of related content
</section>
<aside>
    Sidebar
</aside>
<footer>
    <p>&copy; HTML CheatSheet</p>
    <address>
        Contact <a href="mailto:me@htmlg.com">me</a>
    </address>
</footer>
```

Free HTML Templates

Color Picker 🔋

CE5937

| | 1 |

color: #CE5937;   Text color

background-color:#CE5937;   Background

border: 3px solid #CE5937;   Box border

```html
<blockquote cite="https://ruwix.com/">
The Rubik's Cube is the World's best selling puzz
</blockquote>
```

Video

```html
<video width="200" height="150" controls>
        <source src="vid.mp4" type="video/mp4">
        <source src="vid.ogg" type="video/ogg">
    No video support.
</video>
```

Audio

```html
<audio controls>
    <source src="sound.ogg" type="audio/ogg">
    <source src="sound.mp3" type="audio/mpeg">
    No audio support.
</audio>
```

Structures 🏭

Table

```html
<table><caption>Phone numbers</caption>
    <thead>
        <tr>
            <th>Name</th>
            <th colspan="2">Phone</th>
        </tr>
    </thead>
    <tbody>
        <tr>
            <td>John</td>
            <td>577854</td>
            <td>577855</td>
        </tr>
        <tr>
            <td>Jack</td>
            <td>577856</td>
            <td>577857</td>
        </tr>
    </tbody>
    <tfoot>
        <tr>
            <td> </td>
            <td>Personal</td>
            <td>Office</td>
        </tr>
    </tfoot>
</table>
```

Unordered list

```html
<ul>
    <li>First</li>
    <li>Second</li>
    <li>Third</li>
</ul>
```

Definition list

```html
<dl>
    <dt>HTML</dt>
    <dd>Hypertext Markup Language</dd>
    <dt>CSS</dt>
    <dd>Cascading Style Sheets </dd>
</dl>
```

Form

```html
<form action="/action.php" method="post">
    Name: <input name="name" type="text" /> <br /
```

text-shadow: 1px 2px 2px #C|

box-shadow: 2px 2px 7px 1p|

Text shadow

Box shadow

```
Age: <input max="99" min="1" name="age" step="
<select name="gender">
    <option selected="selected" value="male">
    <option value="female">Female</option>
</select><br />
<input checked="checked" name="newsletter" ty
<textarea cols="20" name="comments" rows="5">
<label><input name="terms" type="checkbox" va
<input type="submit" value="Submit" />
</form>
```

Characters 無

á à â ä ã å &
< > " ' ‹ › « »
☞ $ ¢ £ ¥ € ₹ ₽
元 © ® ☔ ☕ 🧑 ⛄ ☠
☢ ♠ ♣ ♥ ♦ ▲ △ ○
■ § ¶ ☎ □ ☑ ☒ ✓
✗ ☺ ☻ ♪ ♫ ⚑ ✉ ✎
☀ ☆ ★ " " ♥ † ►
▶ ← ↑ → ↓ ↖ ↗ ↘
↙ ™ @ √ °C °F + ×
÷ = ≠ ¼ ½ ¾ ⅓ ⅔
! ? ‒ — ∑ Ω i №

Create Image 📷

All Characters

Source: https://

Description

Style:

Width: Height:
% ▼   px ▼
Float: None ▼

Generate image

Blank Page 💬

Gibberish text 割

Lorem ipsum   **Cupcake ipsum**
Random English   **Chinese**
Spanish

Create iframe 🖼

URL: https://
Width: 100   Height: 100
          % ▼   px ▼
Scrolling: Hidden ▼   Border: No ▼

Generate iframe

Create Table ⊞

Cols: 3   Rows: 3
Border: 0   Border   Not specified ▼
                     Collapse:
Width: 0   Cellpadd 0
          % ▼

Generate table   Div Tables

Create Link 🔗

URL: https://
Text:
Title:
Target: Same tab ▼

Generate link

Create List 📜

List   Unordered list ▼
type:
Unordere disc   ▼   Ordered: 1. 2. 3. ▼

Generate list

htaccess

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>Page Title</title>
    <meta name="description" content="Roughly 155 c
    <link rel="stylesheet" type="text/css" href="my
    <script src="https://ajax.googleapis.com/ajax/l
    <script src="script.js"></script>
  </head>
  <body>
    <!-- Content -->
  </body>
</html>
```

Download Package

Robots.txt 🤘

Example

```
User-agent: *
Disallow: /dont-index-this-folder/
Sitemap: https://htmlcheatsheet.com/sitemap.xml
```

Ban all robots

```
User-agent: *
Disallow: /
```

Open Graph ⬜

```html
<!doctype html>
<html xmlns:og="http://ogp.me/ns#">
<head>
<title>The Rock (1996)</title>
<meta property="og:title" content="Cheat Sheet" />
<meta property="og:type" content="website" />
<meta property="og:url" content="https://htmlcheats
<meta property="og:image" content="https://htmlchea
```

Optional

```html
<meta property="og:audio" content="https://htmlchea
<meta property="og:description" content="A brief de
<meta property="og:determiner" content="the" />
<meta property="og:locale" content="en_US" />
<meta property="og:locale:alternate" content="es_ES
<meta property="og:site_name" content="HTML CheatSh
<meta property="og:video" content="https://htmlchea
```

.htaccess ⚙️

Force HTTPS

```
RewriteEngine on
RewriteCond %{HTTPS} !on
RewriteRule (.*) https://%{HTTP_HOST}%{REQUEST_UR]
```

Force www

```
RewriteEngine on
RewriteCond %{HTTP_HOST} ^htmlg\.com [NC]
RewriteRule ^(.*)$ http://www.htmlg.com/$1 [L,R=30
```

Force non-www

```
RewriteEngine on
RewriteCond %{HTTP_HOST} ^www\.htmlg\.com [NC]
RewriteRule ^(.*)$ http://htmlg.com/$1 [L,R=301]
```

Custom Error Pages

```
ErrorDocument 500 "Sorry, something went wrong!"
ErrorDocument 401 https://htmlg.com/404/
ErrorDocument 404 404error.html
```

Redirect Entire Site

```
Redirect 301 / https://htmlg.com/
```

Permanent Page Redirect

```
Redirect 301 /oldlink.html https://htmlg.com/help,
Redirect 301 /oldlink https://htmlg.com/about/
```

Alias Directory

```
RewriteEngine On
RewriteRule ^source_directory/(.*) target_director
```

Remove .php Extension

```
RewriteEngine On
RewriteCond %{SCRIPT_FILENAME} !-d
RewriteRule ^([^.]+)$ $1.php [NC,L]
```

Block IP Address

```
Order deny,allow
Allow from all
Deny from 123.123.123.123
Deny from 123.123.123.123
```

Allow Access From Only One IP

```
# Require all denied
# Require ip 123.123.123.123
```

Useful Links 💡

RGB color codes

Word doc to HTML   **Div tables**

HTML cleaner   **HTML blog**

HTML editor   **Basic concepts**

HTML validator   **W3 schools**

Can I use?

CSS2 Selectors

*	All elements
div	<div>
div *	All elements within <div>
div span	<span> within <div>
div, span	<div> and <span>
div > span	<span> with parent <div>
div + span	<span> preceded by <div>
.class	Elements of class "class"
div.class	<div> of class "class"
#itemid	Element with id "itemid"
div#itemid	<div> with id "itemid"
a[attr]	<a> with attribute "attr"
a[attr='x']	<a> when "attr" is "x"
a[class~='x']	<a> when class is a list containing 'x'
a[lang|='en']	<a> when lang begins "en"

CSS2 Pseudo Selectors and Pseudo Classes

:first-child	First child element
:first-line	First line of element
:first-letter	First letter of element
:hover	Element with mouse over
:active	Active element
:focus	Element with focus
:link	Unvisited links
:visited	Visited links
:lang(var)	Element with language "var"
:before	Before element
:after	After element

CSS2 Sizes

0	0 requires no unit

Relative Sizes

em	1em equal to font size of parent (same as 100%)
ex	Height of lower case "x"
%	Percentage

Absolute Sizes

px	Pixels
cm	Centimeters
mm	Millimeters
in	Inches
pt	1pt = 1/72in
pc	1pc = 12pt

CSS2 Colours

#789abc	RGB Hex Notation
#acf	Equates to "#aaccff"
rgb(0,-25,50)	Value of each of red, green, and blue. 0 to 255, may be swapped for percentages.

CSS2 Box Model
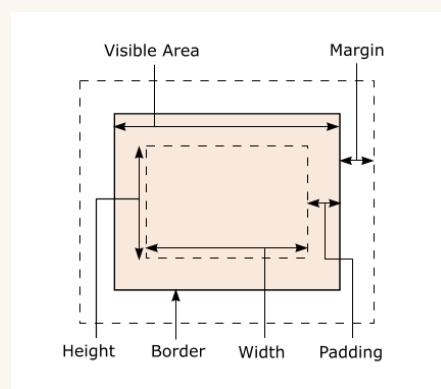
CSS2 Positioning

display	clear
position	z-index
top	direction
right	unicode-bidi
bottom	overflow
left	clip
float	visibility

CSS2 Dimensions

width	min-height
min-width	max-height
max-width	vertical-align
height	

CSS2 Colour and Background

color	background-repeat
background	background-image
background-color	background-position
background-attachment	

CSS2 Text

text-indent	word-spacing
text-align	text-transform
text-decoration	white-space
text-shadow	line-height
letter-spacing	

CSS2 Fonts

font	font-weight
font-family	font-stretch
font-style	font-size
font-variant	font-size-adjust

By **Dave Child** (DaveChild)
cheatography.com/davechild/
aloneonahill.com

CSS2 Boxes

margin	border-color
margin-top	border-top-color
margin-right	border-right-color
margin-bottom	border-bottom-color
margin-left	border-left-color
padding	border-style
padding-top	border-top-style
padding-right	border-right-style
padding-bottom	border-bottom-style
padding-left	border-left-style
border	border-width
border-top	border-top-width
border-bottom	border-right-width
border-right	border-bottom-width
border-left	border-left-width

CSS2 Tables

caption-side	border-spacing
table-layout	empty-cells
border-collapse	speak-header

CSS2 Paging

size	page-break-inside
marks	page
page-break-before	orphans
page-break-after	widows

CSS2 Interface

cursor	outline-style
outline	outline-color
outline-width	

CSS2 Aural

volume	elevation
speak	speech-rate
pause	voice-family
pause-before	pitch
pause-after	pitch-range
cue	stress
cue-before	richness
cue-after	speak-punctuation
play-during	speak-numeral
azimuth	

CSS2 Miscellaneous

content	list-style-type
quotes	list-style-image
counter-reset	list-style-position
counter-increment	marker-offset
list-style	

JS CheatSheet

Loops ↻

For Loop
```js
for (var i = 0; i < 10; i++) {
    document.write(i + ": " + i*3 + "<br />");
}
var sum = 0;
for (var i = 0; i < a.length; i++) {
    sum + = a[i];
}               // parsing an array
html = "";
for (var i of custOrder) {
    html += "<li>" + i + "</li>";
}
```

While Loop
```js
var i = 1;                  // initialize
while (i < 100) {           // enters the cycle
    i *= 2;                 // increment to avo
    document.write(i + ", ");   // output
}
```

Do While Loop
```js
var i = 1;                  // initialize
do {                        // enters cycle at
  i *= 2;                   // increment to avo
    document.write(i + ", ");   // output
} while (i < 100)           // repeats cycle if
```

Break
```js
for (var i = 0; i < 10; i++) {
    if (i == 5) { break; }       // stops and ex
    document.write(i + ", ");    // last output
}
```

Continue
```js
for (var i = 0; i < 10; i++) {
    if (i == 5) { continue; }    // skips the re
    document.write(i + ", ");    // skips 5
}
```

Variables x

```js
var a;                      // variable
var b = "init";             // string
var c = "Hi" + " " + "Joe"; // = "Hi Joe"
var d = 1 + 2 + "3";        // = "33"
var e = [2,3,5,8];          // array
var f = false;              // boolean
var g = /()/;               // RegEx
var h = function(){};       // function object
const PI = 3.14;            // constant
var a = 1, b = 2, c = a + b;    // one line
let z = 'zzz';              // block scope loca
```

Strict mode
```js
"use strict";   // Use strict mode to write secure
x = 1;          // Throws an error because variable
```

Basics ➤

On page script
```html
<script type="text/javascript">  ...
</script>
```

Include external JS file
```html
<script src="filename.js"></script>
```

Delay - 1 second timeout
```js
setTimeout(function () {

}, 1000);
```

Functions
```js
function addNumbers(a, b) {
    return a + b; ;
}
x = addNumbers(1, 2);
```

Edit DOM element
```js
document.getElementById("elementID").innerHTML = '
```

Output
```js
console.log(a);             // write to the browse
document.write(a);          // write to the HTML
alert(a);                   // output in an alert
confirm("Really?");         // yes/no dialog, retu
prompt("Your age?","0");    // input dialog. Secor
```

Comments
```js
/* Multi line
   comment */
// One line
```

If - Else ⇕

```js
if ((age >= 14) && (age < 19)) {       // logical
    status = "Eligible.";              // execute
} else {                               // else b
    status = "Not eligible.";          // execute
}
```

Switch Statement
```js
switch (new Date().getDay()) {   // input is cu
    case 6:                      // if (day ==
        text = "Saturday";
        break;
    case 0:                      // if (day ==
        text = "Sunday";
        break;
    default:                     // else...
        text = "Whatever";
}
```

Data Types ℜ

```js
var age = 18;                          // number
var name = "Jane";                     // string
```

Values

```
false, true                 // boolean
18, 3.14, 0b10011, 0xF6, NaN  // number
"flower", 'John'            // string
undefined, null , Infinity   // special
```

Operators

```
a = b + c - d;        // addition, substraction
a = b * (c / d);      // multiplication, division
x = 100 % 48;         // modulo. 100 / 48 remainder =
a++; b--;             // postfix increment and decrem
```

Bitwise operators

&	AND	5 & 1 (0101 & 0001)	1 (1)
|	OR	5 | 1 (0101 | 0001)	5 (101)
~	NOT	~ 5 (~0101)	10 (1010)
^	XOR	5 ^ 1 (0101 ^ 0001)	4 (100)
<<	left shift	5 << 1 (0101 << 1)	10 (1010)
>>	right shift	5 >> 1 (0101 >> 1)	2 (10)
>>>	zero fill right shift	5 >>> 1 (0101 >>> 1)	2 (10)

Arithmetic

```
a * (b + c)        // grouping
person.age         // member
person[age]        // member
!(a == b)          // logical not
a != b             // not equal
typeof a           // type (number, object, functi
x << 2   x >> 3    // minary shifting
a = b              // assignment
a == b             // equals
a != b             // unequal
a === b            // strict equal
a !== b            // strict unequal
a < b    a > b     // less and greater than
a <= b   a >= b    // less or equal, greater or eq
a += b             // a = a + b (works with - * %.
a && b             // logical and
a || b             // logical or
```

Numbers and Math ∑

```
var pi = 3.141;
pi.toFixed(0);          // returns 3
pi.toFixed(2);          // returns 3.14 - for worki
pi.toPrecision(2)       // returns 3.1
pi.valueOf();           // returns number
Number(true);           // converts to number
Number(new Date())      // number of milliseconds s
parseInt("3 months");   // returns the first number
parseFloat("3.5 days"); // returns 3.5
Number.MAX_VALUE        // largest possible JS numb
Number.MIN_VALUE        // smallest possible JS num
Number.NEGATIVE_INFINITY// -Infinity
Number.POSITIVE_INFINITY// Infinity
```

Math.

```
var pi = Math.PI;       // 3.141592653589793
Math.round(4.4);        // = 4 - rounded
Math.round(4.5);        // = 5
Math.pow(2,8);          // = 256 - 2 to the power o
Math.sqrt(49);          // = 7 - square root
Math.abs(-3.14);        // = 3.14 - absolute, posit
Math.ceil(3.14);        // = 4 - rounded up
Math.floor(3.99);       // = 3 - rounded down
Math.sin(0);            // = 0 - sine
```

```
var name = {first:"Jane", last:"Doe"};  // object
var truth = false;                       // boolea
var sheets = ["HTML","CSS","JS"];        // array
var a; typeof a;                         // undefi
var a = null;                            // value
```

Objects

```
var student = {              // object name
    firstName:"Jane",        // list of propert
    lastName:"Doe",
    age:18,
    height:170,
    fullName : function() {  // object functio
        return this.firstName + " " + this.lastNam
    }
};
student.age = 19;            // setting value
student[age]++;              // incrementing
name = student.fullName();   // call object functi
```

Strings ⊗

```
var abc = "abcdefghijklmnopqrstuvwxyz";
var esc = 'I don\'t \n know';  // \n new line
var len = abc.length;          // string length
abc.indexOf("lmno");           // find substring
abc.lastIndexOf("lmno");       // last occurance
abc.slice(3, 6);               // cuts out "def"
abc.replace("abc","123");      // find and repla
abc.toUpperCase();             // convert to upp
abc.toLowerCase();             // convert to low
abc.concat(" ", str2);         // abc + " " + st
abc.charAt(2);                 // character at i
abc[2];                        // unsafe, abc[2]
abc.charCodeAt(2);             // character code
abc.split(",");                // splitting a st
abc.split("");                 // splitting on c
128.toString(16);              // number to hex(
```

Events ⏱

```html
<button onclick="myFunction();">
    Click here
</button>
```

Mouse

onclick, oncontextmenu, ondblclick, onmousedown,
onmouseenter, onmouseleave, onmousemove,
onmouseover, onmouseout, onmouseup

Keyboard

onkeydown, onkeypress, onkeyup

Frame

onabort, onbeforeunload, onerror, onhashchange, onload
onpageshow, onpagehide, onresize, onscroll, onunload

Form

onblur, onchange, onfocus, onfocusin, onfocusout,
oninput, oninvalid, onreset, onsearch, onselect, onsubmi

Drag

ondrag, ondragend, ondragenter, ondragleave,
ondragover, ondragstart, ondrop

Clipboard

oncopy, oncut, onpaste

```javascript
Math.cos(Math.PI);      // OTHERS: tan,atan,asin,ac
Math.min(0, 3, -2, 2);  // = -2 - the lowest value
Math.max(0, 3, -2, 2);  // = 3 - the highest value
Math.log(1);            // = 0 natural logarithm
Math.exp(1);            // = 2.7182pow(E,x)
Math.random();          // random number between 0
Math.floor(Math.random() * 5) + 1;  // random integ
```

Constants like Math.PI:

E, PI, SQRT2, SQRT1_2, LN2, LN10, LOG2E, Log10E

Dates 📅

Mon Feb 17 2020 13:42:03 GMT+0200 (Eastern European Standard Time)
```javascript
var d = new Date();
```

1581939723047 miliseconds passed since 1970
```javascript
Number(d)
```

```javascript
Date("2017-06-23");                     // date declara
Date("2017");                           // is set to Ja
Date("2017-06-23T12:00:00-09:45");      // date - time
Date("June 23 2017");                   // long date fo
Date("Jun 23 2017 07:45:00 GMT+0100 (Tokyo Time)");
```

Get Times
```javascript
var d = new Date();
a = d.getDay();       // getting the weekday

getDate();            // day as a number (1-31)
getDay();             // weekday as a number (0-6)
getFullYear();        // four digit year (yyyy)
getHours();           // hour (0-23)
getMilliseconds();    // milliseconds (0-999)
getMinutes();         // minutes (0-59)
getMonth();           // month (0-11)
getSeconds();         // seconds (0-59)
getTime();            // milliseconds since 1970
```

Setting part of a date
```javascript
var d = new Date();
d.setDate(d.getDate() + 7); // adds a week to a dat

setDate();            // day as a number (1-31)
setFullYear();        // year (optionally month and d
setHours();           // hour (0-23)
setMilliseconds();    // milliseconds (0-999)
setMinutes();         // minutes (0-59)
setMonth();           // month (0-11)
setSeconds();         // seconds (0-59)
setTime();            // milliseconds since 1970)
```

Global Functions ()

```javascript
eval();                     // executes a string as
String(23);                 // return string from n
(23).toString();            // return string from n
Number("23");               // return number from s
decodeURI(enc);             // decode URI. Result:
encodeURI(uri);             // encode URI. Result:
decodeURIComponent(enc);    // decode a URI compone
encodeURIComponent(uri);    // encode a URI compone
isFinite();                 // is variable a finite
isNaN();                    // is variable an illeg
parseFloat();               // returns floating poi
parseInt();                 // parses a string and
```

Media

onabort, oncanplay, oncanplaythrough, ondurationchange
onended, onerror, onloadeddata, onloadedmetadata,
onloadstart, onpause, onplay, onplaying, onprogress,
onratechange, onseeked, onseeking, onstalled,
onsuspend, ontimeupdate, onvolumechange, onwaiting

Animation

animationend, animationiteration, animationstart

Miscellaneous

transitionend, onmessage, onmousewheel, ononline,
onoffline, onpopstate, onshow, onstorage, ontoggle,
onwheel, ontouchcancel, ontouchend, ontouchmove,
ontouchstart

Arrays ☰

```javascript
var dogs = ["Bulldog", "Beagle", "Labrador"];
var dogs = new Array("Bulldog", "Beagle", "Labrad

alert(dogs[1]);             // access value at in
dogs[0] = "Bull Terier";    // change the first i

for (var i = 0; i < dogs.length; i++) {    // pa
    console.log(dogs[i]);
}
```

Methods
```javascript
dogs.toString();                        // conver
dogs.join(" * ");                       // join:
dogs.pop();                             // remove
dogs.push("Chihuahua");                 // add ne
dogs[dogs.length] = "Chihuahua";        // the sa
dogs.shift();                           // remove
dogs.unshift("Chihuahua");              // add ne
delete dogs[0];                         // change
dogs.splice(2, 0, "Pug", "Boxer");      // add el
var animals = dogs.concat(cats,birds);  // join t
dogs.slice(1,4);                        // elemen
dogs.sort();                            // sort s
dogs.reverse();                         // sort s
x.sort(function(a, b){return a - b});   // numeri
x.sort(function(a, b){return b - a});   // numeri
highest = x[0];                         // first
x.sort(function(a, b){return 0.5 - Math.random()}
```

concat, copyWithin, every, fill, filter, find, findIndex,
forEach, indexOf, isArray, join, lastIndexOf, map, pop,
push, reduce, reduceRight, reverse, shift, slice, some,
sort, splice, toString, unshift, valueOf

Regular Expressions \n

```javascript
var a = str.search(/CheatSheet/i);
```

Modifiers

i	*perform case-insensitive matching*
g	*perform a global match*
m	*perform multiline matching*

Patterns

\	*Escape character*
\d	*find a digit*
\s	*find a whitespace character*
\b	

find match at beginning or end of a word

Errors ⚠

```
try {                              // block of code to
    undefinedFunction();
}
catch(err) {                       // block to handle
    console.log(err.message);
}
```

Throw error

```
throw "My error message";    // throw a text
```

Input validation

```
var x = document.getElementById("mynum").value; //
try {
    if(x == "")  throw "empty";           //
    if(isNaN(x)) throw "not a number";
    x = Number(x);
    if(x > 10)   throw "too high";
}
catch(err) {                           //
    document.write("Input is " + err);     //
    console.error(err);                   //
}
finally {
    document.write("</br />Done");         //
}
```

Error name values

RangeError	*A number is "out of range"*
ReferenceError	*An illegal reference has occurred*
SyntaxError	*A syntax error has occurred*
TypeError	*A type error has occurred*
URIError	*An encodeURI() error has occurred*

Useful Links ↵

```
n+               contains at least one n
n*
  contains zero or more occurrences of n
n?
  contains zero or one occurrences of n
^                Start of string
```

JSON j

```
var str = '{"names":[' +                   // cra
'{"first":"Hakuna","lastN":"Matata" },' +
'{"first":"Jane","lastN":"Doe" },' +
'{"first":"Air","last":"Jordan" }]}';
obj = JSON.parse(str);                     // pa
document.write(obj.names[1].first);        // ac
```

Send

```
var myObj = { "name":"Jane", "age":18, "city":"Ch:
var myJSON = JSON.stringify(myObj);
window.location = "demo.php?x=" + myJSON;
```

Storing and retrieving

```
myObj = { "name":"Jane", "age":18, "city":"Chicag
myJSON = JSON.stringify(myObj);              /,
localStorage.setItem("testJSON", myJSON);
text = localStorage.getItem("testJSON");     /,
obj = JSON.parse(text);
document.write(obj.name);
```

Promises Þ

```
function sum (a, b) {
    return Promise(function (resolve, reject) {
        setTimeout(function () {
            if (typeof a !== "number" || typeof b !==
                return reject(new TypeError("Inputs must
            }
            resolve(a + b);
        }, 1000);
    });
}
var myPromise = sum(10, 5);
myPromsise.then(function (result) {
    document.write(" 10 + 5: ", result);
    return sum(null, "foo");                // Invalid
}).then(function () {                       // Won't
}).catch(function (err) {                   // The cat
    console.error(err);                     // => Plea
});
```

States

pending, fulfilled, rejected

Properties

Promise.length, Promise.prototype

Methods

Promise.all(iterable), Promise.race(iterable),
Promise.reject(reason), Promise.resolve(value)