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HTML

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#DIADELAPROGRAMACION

S HTML Syntax Tag structure

HTML TAG/ATTRIBUTE SYNTAX

<tag attribute="value"> content </tag>

D Document tags HTML main structure

MAIN TAGS

<!DOCTYPE html> HTML5 document
<html> document content root tag
<head> metadata header related docs
<body> page content visible content

G Global Attributes for all elements

DOM / STYLE ATTRIBUTES

id element identifier unique per page
class element class multiple per page
slot element slot reference to <slot>
style inline CSS styles css properties

GLOBAL ATTRIBUTES

accesskey shortcut key to focus
contenteditable allow edit element
dir ltr | rtl | auto text direction
draggable | auto enable drag and drop
hidden | hide element not relevant
is custom-elem custom built-in elem
lang code set content lang en, es, fr...
nonce hash whitelist script/style [CSP]
spellcheck | disable grammar check
tabindex num set element order
title set tooltip text mouse hover
translate yes | no disable translation
data-* custom metadata on element

HINT TO BROWSER

enterkeyhint enter | done | go | search
next | previous | send virtual keyb label
inputmode none | text | tel | url | email
numeric | decimal | search

MICRODATA ATTRIBUTES

itemid set global urn unique identifier
itemscope new metadata item
itemtype set microdata genre url
itemref id list set reference to "id"
itemprop token set property & value

S Inline Styling CSS inline

INLINE STYLES

<style> embed css style in a document
title set title to stylesheet set
type mime hint type for browser

ONLY FOR <LINK>, PICTURE <SOURCE> & <STYLE>

media apply to specific devices
all all devices computers, mobiles...
print printables devices
screen all devices - (print + speech)
speech devices that read a page

CHEATSHEET LEGEND

| | | |
|-------------------|------------------------|------------|
| html tag | html tag w/o close tag | obsolete |
| attribute | attribute w/o value | |
| value | default value | values set |
| value for content | value part | |

C Comment Syntax Dev annotations

HTML COMMENT SYNTAX

<!-- text without effects on webpage -->

H Head tags Header & document metadata

RELATIONS

<link> document relation
href link to related document
hreflang code doc language en, es...
type mime hint type for browser
title set title to stylesheet set
sizes hint size for favicon 64x64, 96x96
rel relation type with other document

BASIC RELATION

alternate link to alternate version
author link to author URL
help link to help URL
icon link to favicon URL (tab icon)
license fetch module map
pingback link to pingback server
search link to search page url
stylesheet imports a css style sheet

URL STRUCTURE RELATION

canonical link to preferred URL
prev prev part URL of series doc
next next part URL of series doc

RESOURCE HINTS

dns-prefetch resolve dns domain
preconnect pre connect to domain
prefetch fetch/cache link for future
preload fetch/cache link for now
modulepreload fetch module map
prerender background render page
as script | font | image | audio | video | fetch
document | embed | object | style | track
worker

DOCUMENT METADATA

<meta> document metadata
charset enc encoding utf-8, iso-8859-1...
name name of metadata
application-name short webapp name
author name of the page's author
description seo page description
generator software used to build web
keywords comma-separated tags
referrer default page referrer policy
theme-color primary theme css color
viewport hint to initial size viewport
http-equiv pragma directive (legacy)
content-type legacy alt. to charset
default-style default stylesheet set
refresh html redirect 10; URL=file.html
x-ua-compatible better compat IE=edge
content-security-policy enforce csp
content metadata value
<title> seo document title
<base> set a document base url
href link to base url to use
target context place to open link

S Social metadata For social networks

FACEBOOK OPEN GRAPH

<meta> metadata tag for open graph
property metadata type open graph
content metadata value open graph

REQUIRED METADATA PROPERTIES

og:title title of your object
og:type type of your object
music | video | article | book
profile website
og:image image url for preview
og:url canonical & absolute url

OPTIONAL METADATA PROPERTIES

og:audio complementary audio url
og:description 1-2 sentence descr.
og:determiner word auto, the, a, an, ...
og:locale language default: en_US
og:locale:alternative others lang array
og:site_name general site name
og:video complementary video url

TWITTER CARDS

<meta> metadata tag for twitter cards
name metadata type twitter cards
content metadata value twitter cards

BASIC METADATA PROPERTIES

twitter:title title of your object
twitter:card type of your object
summary | summary_large_image
app player

OPTIONAL METADATA PROPERTIES

twitter:site account site name
twitter:creator account name @manz
twitter:description description
twitter:image absolute image url

APP METADATA PROPERTIES

twitter:app:country country code
twitter:app:name: **** name of app
twitter:app:id: **** identifier of app
twitter:app:url: **** url of app store
iphone | ipad | googleplay | id for ****

PLAYER METADATA PROPERTIES

twitter:player https url to iframe player

GOOGLE SEO RECOMMENDATIONS

<title> first - second | brand 50-60 chars
<meta> metadata google-supported
name metadata name
description text snippet 50-160 chars
robots googlebot set bots behaviour
all | noindex |nofollow | none
noarchive | nosnippet | noopd
notranslate | noimageindex
unavailable_after: date
google disable google features
notranslate | nositelinkssearchbox
rating adult exclude secure search
viewport optimized-mobile page
content="width=device-width, initial-scale=1.0"



MANZ.DEV
WEB DEVELOPER / STREAMER



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#DIADELAPROGRAMACION

F Forms Forms related tags

MAIN ELEMENTS

<form> form elements collection
name form name document.forms api
method GET POST dialog send method
action url to backend form submission
accept-charset enc force encoding utf-8
autocomplete on off autofill for all form
novalidate bypass form validation
target context place to put response
enctype application/x-www-form-urlencoded
 multipart/form-data text/plain encoding type

<label> associate element with caption
for reference to id of related element

GROUP FORMS

<fieldset> group of form elements
name element name forms.elements api
form associate fieldset with a form
disabled avoid select this group items
<legend> caption text for fieldset

I Input elements User input types

USER INPUT DATA

<input> <textarea> specific & large text
name element name form.elements api
autocomplete on off autofill for input
autofocus focus input when loaded
dirname submit element directionality
form associate input with a form
placeholder user visual hint

ONLY <INPUT> ELEMENT

<input> specific text input short text

type text hidden search tel url email
 number range color file password
 datetime-local date time week month
 checkbox radio submit image reset button
value current value of input element
size size of element in characters
list associate with id of <datalist>
accept hint for expected file in upload
checked enable in radio or checkbox
multiple allow multiple values

ONLY IMAGE <INPUT> ELEMENT

src url or name of image button
alt alternative text to image
width height image width/height size

ONLY <TEXTAREA> ELEMENT

<textarea> multiline text input large text
rows cols number of lines and columns
wrap wrap text

ALTER FORM SUBMISSION ONLY SUBMIT <INPUT> & <BUTTON>

formaction formtarget formnovalidate
formenctype formmethod
 attributes to alter main form submission

R Ruby tags Ruby Markup tags

RUBY ELEMENTS

<ruby> ruby annotation E.Asian-like chars
<rp> ruby fallback parenthesis wrapper
<rt> ruby text pronunciation, translation...

S Select data tags Interactive combo

SELECT ELEMENTS

<select> form elements collection
name form name document.forms api
form associate input with a form
size size of element in characters
autocomplete on off autofocus for input
autofocus focus input when loaded
disabled avoid press button
required required field default: optional
multiple allow select multiple values
<datalist> predefined and open data list

SELECT CHILDREN ELEMENTS

<option> item from <select> or <datalist>
label user-visible text instead content
value item value for form submit
selected options selected by default
disabled avoid select this item option
<optgroup> group of <option>
label user-visible group text
disabled avoid select this items

B Generic Button HTML Button

HTML GENERIC <BUTTON>

<button> generic button container
name element name form.elements api
type submit reset button button type
value button value for form submission
form associate input with a form
autofocus focus button when loaded
disabled avoid press button

D Deprecated tags Obsolete elements

DEPRECATED TAG

| DEPRECATED TAG | RECOMMENDED TAG |
|----------------------|---------------------------------------|
| <applet> | java widgets <embed> <object> |
| <acronym> | abbreviation <abbr> |
| <basefont> | main font use CSS instead |
| <big> | bigger text use CSS font-size |
| <bgsound> | background sound <audio> |
| <blink> | flicker text use CSS animation |
| <center> | center text use CSS text-align |
| <dir> | directory list use lists instead |
| | set font features use CSS instead |
| <frame> <frameset> | frames <iframe> |
| <marquee> | move text use CSS animation |
| <multicol> | col layout use CSS columns |
| <noframes> | frames fallback no supported |
| <isindex> | search in page <input> |
| <keygen> | keypair gen use webcrypto API |
| <listing> | preformatted text <pre> <code> |
| <menuitem> | context menu no supported |
| <nextid> | auto id generated no supported |
| <nobr> | no break use CSS instead |
| <noembed> | no embed fallback <object> |
| <plaintext> | plain text fragment <pre> |
| <rb> <rtc> | ruby base & container <ruby> |
| <spacer> | whitespace use CSS instead |
| <strike> | strikethrough text <s> |
| <tt> | teletype text use CSS instead |
| <xmp> | code block use < <pre> <code> |

I Interactive tags Other elements

OTHER FORM ELEMENTS

<output> result of calculation
name element name forms.elements api
form associate input with a form
for associate result to other element
<progress> show a bar progress
value current value of bar progress
max max value of bar progress
<meter> show a known range meter
value current value of meter
low limit of low range
high limit of high range
min lower bound of range
max upper bound of range
optimum optimum value in gauge

OTHER INTERACTIVE ELEMENTS

<details> disclosure widget html accordion
open keep accordion opened
<summary> caption or title for <details>
<dialog> window box container dialog box
open keep dialog opened

V Validations HTML validations

USER INPUT DATA

TEXT VALIDATIONS

<input> & <textarea> minlength maxlength min/max length

GENERAL VALIDATIONS

required required field default: optional
 disabled avoid edit field not send
 readonly avoid edit field send

NUMBER VALIDATIONS

min max min/max value number
 step granularity step between values

POWERFUL VALIDATIONS

ONLY <INPUT> pattern REGEXP pattern for test validation

A ARIA Attributes Accesible elements

ACCESSIBLE RICH INTERNET APPLICATIONS

role specify accessible role for element
 complementary list listitem main navigation
 region tab alert application article banner
 button cell checkbox contentinfo dialog
 document feed figure form grid gridcell
 heading img listbox row rowgroup search
 switch table tabpanel textbox timer
aria-checked true false mixed
aria-selected set current state

LABELS

aria-label specify a string as label
aria-labelledby specify id as label elem

RELATIONSHIPS

aria-owns set id element as child
aria-activedescendant set id as active
aria-describedby set id as description
aria-posinset specify position in set
aria-setsize specify size of set



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#DIADELAPROGRAMACION

G Groups tags Block elements

GENERAL GROUP TAGS

- <div>** generic division or layer block
- <p>** text paragraph
- <hr>** thematic break
- <pre>** preformatted text
- <main>** dominant contents
- <blockquote>** section with quote
- cite** link to url with quotation source

LISTS & TERMS

- ** **** unorderer & orderer list
 - start** first value of list
 - reversed** backwards list
 - type** 1 a A i I kind of marker
- ** item from **** or **** list
 - value** ordinal value of item
- <dl>** description list container
- <dt>** **<dd>** description term name & value

FIGURE & CAPTIONS

- <figure>** figure or concept
- <figcaption>** caption or legend for figure

SEMANTIC TAGS

- <article>** entity content post, comment...
- <section>** thematic group of content
- <nav>** section with navigation links
- <aside>** secondary content sidebar, menu
- <h1>** **<h2>** ... **<h6>** heading section
- <header>** introductory header group
- <footer>** section footer group
- <address>** contact information group

T Tables tags Tabular data

TABLE ELEMENTS

- <table>** table container
- <caption>** title of table optional
- <thead>** table header includes headers
- <tbody>** table body includes body data
- <tfoot>** table footer includes summary

COLUMNS

- <col>** **<colgroup>** col & group of columns
- span** number of columns to span

ITEMS

- <tr>** table row horizontal container
- <th>** **<td>** table header & table cell data
 - colspan** number of columns to span
 - rowspan** number of rows to span
 - headers** one or more **id** of **<th>** elements
- ONLY FOR **<TH>** ELEMENT
 - scope** auto row col rowgroup colgroup
 - abbr** short abbreviated description

T Target destination

KEYWORDS & TARGET DESTINATION

- target** browser destination
 - _self** current place same page
 - _blank** new place new tab page
 - _parent** parent place else _self
 - _top** root parent place else _self
 - name** custom place iframe or other

T Text tags Inline elements

TEXT SEMANTIC TAGS

- ** emphasized text replace for **<i>**
- ** important text replace for ****
- <mark>** highlight text replace for **<u>**
- <i>** alternate voice/mood legacy tag
- ** span w/o extra purposes legacy tag
- <u>** non-textual data span legacy tag
- <sub>** **<sup>** subscript and superscript
- <small>** side comments small print
- <var>** math or programming variable
- <samp>** sample from computing system
- <kbd>** user input (keyboard shortcut)
- <dfn>** defining instance of a term
- title** full term optional
- <abbr>** abbreviation or acronym
 - title** expansion of abbreviation optional
- <cite>** title of a work book, film, song...
- <q>** quoted group from another source
 - cite** link to source url optional
-
** line break visual enter
- <wbr>** line break opportunity long words
- <s>** no longer accurate/relevant strike text
- <data>** associate machine-data to text
- value** machine-readable value
- <time>** associate machine-date to date
 - datetime** machine-readable date-time
- <code>** fragment of computer code

H Hyperlinks Link to another resource

HYPERLINKS & AREA MAP

- <a>** **<area>** hyperlink / image map area
 - href** link to url or filename
 - hreflang** **code** doc language en, es...
 - download** download name empty valid
 - rel** alternate author bookmark external license
 - prev next search tag opener help noopener
 - noreferrernofollow sponsored ugc
 - target** **context** place to open link
 - ping** url list space-separated to ping
 - referrerpolicy** **mode** referer behaviour
- ATTRIBUTES ONLY FOR **<AREA>** ELEMENT
 - shape** rect circle poly
 - coords** coords list for shape
 - alt** replacement text when no images

E Edit tags Edit elements

TEXT SEMANTIC TAGS

- <ins>** **** addition or removal from doc
 - cite** link to source quotation optional
 - datetime** date/time of change optional

S Security & Privacy Edit elements

- POLICIES **, <VIDEO>, <AUDIO>, <LINK> or <SCRIPT>**
 - crossorigin** CORS support
 - anonymous use-credentials
 - referrerpolicy** set how referer works
 - no-referrer no-referrer-when-downgrade
 - same-origin origin strict-origin unsafe-url
 - origin-when-cross-origin strict-origin-when-cross-origin

I Image tags Picture content

IMAGES

JPG PNG SVG WEBP JPGXR JPG2000 GIF APNG

- ** image simple or legacy fallback
 - src** link to url image source required
 - alt** alternative text if no image required
 - width** **height** horizontal & vertical size
 - loading** set lazy loading strategy
 - auto browser decides
 - lazy candidate for lazy loading
 - eager load right away
 - usemap** name of image map to use
 - ismap** image is part of server-side map
 - decoding** sync async auto hint to decode
 - <map>** image map used w/ **<a>** & **<area>**
 - name** imagemap used in **usemap**

NEXT-GEN IMAGES

- <picture>** multiple image container
- <source>** new alternative source image
 - src** link to url image source simple mode
 - type** MIME type optional
 - media** media query of resource media

PICTURE <SOURCE> & ATTRIBUTES

- srcset** image list candidates comma-sep
 - width** a1.jpg 300w, a2.jpg 600w, ...
 - density** b1.jpg 1x, b2.jpg 2x, ...
 - sizes** final rendered width list 640w

M Multimedia tags

VIDEO OR AUDIO CONTAINER ELEMENTS

MP4 WEBM HEVC AV1 OGV ← VIDEO
MP3 AAC OGG OPUS FLAC WAV ← AUDIO

- <video>** **<audio>** media container
 - src** link to url video audio source
 - preload** hints how much buffering needs
 - auto browser decides
 - metadata fetch metadata only
 - none save bandwidth and no download
 - autoplay** autoplay only if user interact
 - loop** restart when finished
 - muted** silence media by default
 - controls** show play, pause... controls

ONLY FOR <VIDEO> ELEMENT

- poster** cover image prior to playback
- width** **height** horizontal & vertical size
- playsinline** browser try play video inline

VIDEO OR AUDIO CHILDREN ELEMENT

- <source>** new alternative source media
 - src** link to url media source
 - type** MIME type video/mp4; codecs='...
- <track>** external subtitles or tracks
 - src** link to url subtitle resource
 - srclang** language of the text track
 - label** user-visible name of the text track
 - kind** subtitles captions descriptions
 - chapters metadata
 - default** set default enabled track



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#DIADELAPROGRAMACION

E Embedded tags External content

EXTERNAL CONTENT (IFRAME)

<iframe> embedded content
src link to url resource website, file, ...
srcdoc document content html syntax
name name context for **target** attribute
loading auto lazy eager lazy load iframe
allowfullscreen allow iframe fullscreen
allowpaymentrequest allow payments
width **height** horizontal & vertical sizes

<IFRAME> SECURITY, PRIVACY & POLICY ATTRIBUTES

sandbox allow-forms allow-modals
 allow-orientation-lock allow-pointer-lock
 allow-popups-to-escape-sandbox allow-scripts
 allow-same-origin allow-presentation
 allow-top-navigation-by-user-activation
 allow-top-navigation allow-popups

allow **feature** allow access to feature

ambient-light-sensor autoplay accelerometer
 camera display-capture document-domain
 encrypted-media fullscreen geolocation
 gyroscope magnetometer microphone midi
 payment picture-in-picture speaker sync-xhr
 usb wake-lock webauthn vr

referrerpolicy mode referer behaviour

LEGACY EMBED/OBJECT TAGS

<embed> external non-html content
src link to url resource
type type of embedded resource
width **height** horizontal & vertical sizes

<object> external resource multipurpose

data link to url resource
type type of embedded resource
name name context for **target** attribute
usemap name of image map to use
form associates element with form **id**
width **height** horizontal & vertical sizes

<param> external resource multipurpose

name **value** name & value of parameter

EXPERIMENTAL TAGS

<portal> guest embedded content ~iframe
src link to url resource website, file, ...
referrerpolicy mode referer behaviour

S SVG paths Scalar Vectorial Graphics

POWERFUL PATHS

<path> define a outline of a shape
d command/coords space-separated
pathLength total length of the path

PATH COMMANDS GUIDE

| | | | |
|---|---|------------------|-----------------------|
| M | m | Move to | path begins · M10,30 |
| Z | z | Close path | path ends · Z |
| L | l | Line to | draw line · L90,90 |
| H | h | Horiz line to | horizontal line · H40 |
| V | v | Vert line to | vertical line · V20 |
| C | c | Cubic Bézier | C30,90 25,10 50,10 |
| S | s | Smooth C. B. | S70,90 90,90 |
| Q | q | Quadratic Bézier | Q90,60 50,90 |
| T | t | Smooth Q. B. | T30,0 30,0 30,0 |
| A | a | Elliptical Arc | A20,20 0,0,1 50,30 |

S SVG tags Scalar Vectorial Graphics

MAIN TAGS

<svg> svg container standalone svg
viewBox **minx** **miny** **width** **height**
width **height** viewport size
preserveAspectRatio **align** **option**
 align none x***y** Min Mid Max
option meet slice

<g> related group container

SVG METADATA

<title> short text title alternative
<desc> detailed textual information
<metadata> metadata elems. container

CONTENT FOR REUSE

<defs> referenced elements container
<symbol> set reuse template no render
<use> reference another element reuse
href a url link to be cloned for rendering
<switch> reference another element
<*>** direct child of **<switch>**
systemLanguage **code**

BASIC SHAPES

<rect> define a rectangle
x **y** horizontal & vertical position
width **height** horizontal & vertical sizes
rx **ry** horizontal & vertical radius
<circle> define a circle
cx **cy** horizontal & vertical center coord
r radius of the circle
<ellipse> define a ellipse
rx **ry** horizontal & vertical radius
cx **cy** horizontal & vertical center coord
<line> define a line segment
x1 **y1** start point (x,y) of line segment
x2 **y2** end point (x,y) of line segment
pathLength total length of the path
<polyline> **<polygon>** line / closed shape
points set of coords space-separated
pathLength total length of the path

TEXT & IMAGE ELEMENTS

<text> **<tspan>** text layer & text container
x **y** start position of text
dx **dy** relative position of descendant
lengthAdjust **spacing** **spacingAndGlyphs**
rotate **number** rotate degrees per glyph
textLength **number** length per glyph
<textPath> put text on path
path equivalent of **d** attribute **<path>**
href url reference to **<path>**
startOffset **length** offset from start path
method **align** **stretch** how render glyph
spacing exact auto space between glyph
side left right side of the path to render
lengthAdjust **spacing** **spacingAndGlyphs**
textLength **number** length per glyph
<image> set reference to image
href a url link to image to rendering
preserveAspectRatio **align** **option**
crossorigin CORS support

S Scripting tags Javascript elements

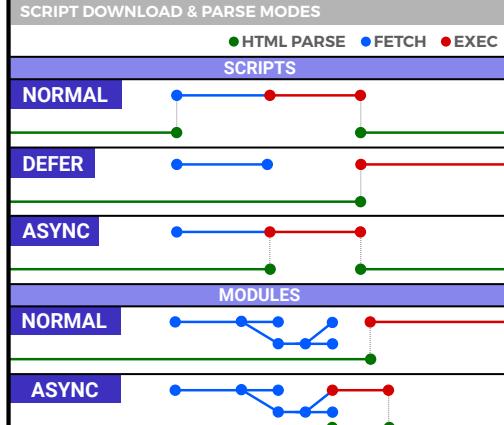
SCRIPTING ELEMENTS

<script> include dynamic script
src link to script.js instead inline script
type associate fieldset with a form
 text/javascript javascript file default.js
 application/json JSON data block file.json
module javascript module module.mjs
nomodule fallback for old browsers
defer defer script execution
async exec script when available

SECURITY & PRIVACY

referrerpolicy mode referer behaviour
crossorigin mode CORS support
integrity verify integrity hash of **src** file

SCRIPT DOWNLOAD & PARSE MODES



S Other scripting tags Javascript elements

JAVASCRIPT-RELATED TAGS

<noscript> show if no scripting enabled
<template> inert html fragments to clone
<slot> create separate DOM trees
name name of shadow tree slot
<canvas> rendering graphs, art, etc...
width **height** horizontal & vertical size
<custom-elem> user custom element tag

S SVG Atts Style SVG attributes

STYLE SVG ATTRIBUTES

FILL SHAPE

fill black **color** fills shape with a color
fill-rule nonzero evenodd algorithm inside
fill-opacity 1 opacity alpha channel

LINE (STROKE)

stroke none **color** set color line
stroke-width 1 width set width line
stroke-opacity 1 opacity alpha channel
stroke-linecap butt round square limit type
stroke-linejoin miter miter-clip round bevel arcs
stroke-miterlimit 4 number limit on ratio
stroke-dasharray none number array pattern
stroke-dashoffset 0 number array offset

OTHERS (CSS ATTRIBUTES)

transform css transform apply transform
class id style html attributes inherit

CSS

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C CSS Syntax

GENERAL SYNTAX

```
tag [attributes] #id .class :pseudoclass ::pseudoelement {
    selector : value;
}
```

COMMENTS (ANNOTATIONS)

```
/* comment */
EXAMPLE /* IE sucks */
```

S CSS Selectors

SELECTORS & COMBINATORS

| | |
|---|-----------|
| # element with id="unique" | #unique |
| . elements with class="c1" | .c1 |
| * all elements inside of div (universal) | div * |
| inner div elements inside of div (descendant) | div div |
| > direct childs of div (child) | div > div |
| + adjacents elements (adjacent sibling) | div + div |
| ~ siblings elements at same level (general sibling) | div ~ div |

ATTRIBUTES

| [attr] | elements with attr attribute present |
|--------------|--|
| [attr="val"] | elements with attr= attribute with value val "val" |
| [attr~=val] | elements with attr~= that contains val "abc val xyz" |
| [attr =es] | elements with attr/= that contains es-* "en-US es-ES" |
| [attr*=val] | elements with attr*= that includes val "equivalent-is-" |
| [attr^=val] | elements with attr^= that begins with val "value-is-..." |
| [attr\$=val] | elements with attr\$= that ends with val "in-interval" |

PSEUDOCLASSES

| | |
|--------------------|--|
| :link | links that have not yet been visited |
| :visited | links that has been visited |
| :hover | user move mouse/pointer over element |
| :active | element is being activated by user |
| :focus | element has the focus (foreground) |
| :enabled | :disabled on/off input state |
| :checked | elements toggled "on" by user |
| :indeterminate | input on indeterminate state |
| :read-only | :read-write readonly input or modifiable |
| :placeholder-shown | inputs that shows placeholder at now |
| :default | default elements for form (input, option, ...) |
| :valid | :invalid userdata pass/not pass check validation |
| :in-range | :out-of-range userdata in range/out of range |
| :required | :optional elements required/optional for submit |

STRUCTURAL CHILD ELEMENTS

| | |
|--------------------|--|
| :first-child | first child of group of elements ~ :nth-child(1) |
| :last-child | last child of group of elements ~ :nth-last-child(1) |
| :nth-child(n) | n th child of group of elements |
| :nth-last-child(n) | last n th child of group of elements |
| :only-child | unique child |

STRUCTURAL CHILD OF SAME TYPE

| | |
|----------------------|--|
| :first-of-type | first child of same type |
| :last-of-type | last child of same type |
| :nth-of-type(n) | n th child of same type |
| :nth-last-of-type(n) | last n th child (same type) |
| :only-of-type | unique child (same type) |

OTHERS

| | |
|----------|------------------------------|
| :root | root element of the document |
| :empty | element without contents |
| :not(x) | not match by x selector |
| :target | is the target of anchor URL |
| :lang(x) | elements in x language |

PSEUDOELEMENTS

| | |
|----------------|------------------------------|
| ::first-line | first line of text element |
| ::first-letter | first letter of text element |

C CSS Colors

COLOR PROPERTIES

| | |
|------------------|--|
| color: color | RGB 237 + 63 + 0 = RGB(237, 63, 0) |
| opacity: 1 alpha | HSL 11 + 255 + 119 = HSL(11, 255, 119) |

COLOR MODELS

KEYWORDS

colorkey transparent currentColor

NUMERIC FORMAT

| | |
|---------------------------------|--------------------------|
| RGB(red, green, blue) | RGB(65, 106, 225) |
| # red_hex green_hex blue_hex | #416AE1 short form: #46E |
| HSL(hue, saturation, lightness) | HSL(159, 185, 145) |

WITH ALPHA CHANNEL

| | |
|---|-------------------------|
| RGBA(red, green, blue, alpha) | RGBA(65, 106, 225, 0.5) |
| HSLA(hue, saturation, lightness, alpha) | HSLA(159, 185, 145, 1) |

COLOR COMPONENTS

| | |
|----------------------------|--|
| red green blue | numeric value between [0 ... 255] |
| red_hex green_hex blue_hex | hexadecimal value [00 ... FF] |
| hue | numeric value (degrees) between [0 ... 360deg] |
| saturation | percentage values [0%...100%] |
| lightness | percentage values [0%...100%] |
| alpha | number value between [0.0 ... 1.0] |

V CSS Values & Units

RESETTING ALL PROPERTIES

| | | |
|--------------|---------|-------|
| all: initial | inherit | unset |
|--------------|---------|-------|

COMMON VALUES

| | |
|---------|--------------------------------|
| initial | property's initial value |
| inherit | computed value on parent |
| unset | initial or inherit (depending) |

MATHEMATICAL EXPRESSIONS

| | |
|----------------------------|---------------------------|
| calc(value1 op value2 ...) | EXAMPLE calc(200px + 10%) |
|----------------------------|---------------------------|

FONT-RELATIVE SIZES

| | |
|-----|------------------------------|
| em | computed value on current |
| ex | x-height of lowercase "x" |
| ch | advance measure of "0" glyph |
| rem | computed value on root elem |

VIEWPORT SIZES

| | |
|------|--------------------|
| vw | viewport width % |
| vh | viewport height % |
| vmin | smaller (vw or vh) |
| vmax | larger (vw or vh) |

ABSOLUTE SIZES

| | |
|----|-------------|
| px | pixels |
| cm | centimeters |
| mm | millimeters |
| Q | quarter-mm |
| in | inches |
| pc | picas |
| pt | points |

ANGLES

| | |
|-------|-------------------|
| deg | degrees [0..360] |
| grad | gradians [0..400] |
| rad | radians [0..6.28] |
| turns | turns [0.0..1.0] |

DURATIONS

| | |
|----|-----------|
| s | seconds |
| ms | millisecs |

PERCENTAGES

| | |
|---------|-------------|
| value % | EXAMPLE 75% |
|---------|-------------|

CUSTOM PROPERTIES (CSS VARIABLES)

| | |
|--------------------|-------------------------------|
| DECLARING | USING |
| -- varname: value; | var(-- varname, fallback ...) |

EXAMPLES

EXAMPLE --size: 100px; EXAMPLE calc(var(--size, 50px) * 2);

M CSS Media Features

VIEWPORT SIZE

| | |
|----------------|------|
| MIN MAX width | size |
| MIN MAX height | size |

DEVICE SIZE

| | |
|-----------------------|------|
| MIN MAX device-width | size |
| MIN MAX device-height | size |

ASPECT RATIO

| | |
|-----------------------------|-------|
| MIN MAX aspect-ratio | ratio |
| MIN MAX device-aspect-ratio | ratio |

COLORS

| | |
|---------------------|--------|
| MIN MAX color | number |
| MIN MAX color-index | number |

OTHERS

| | |
|--------------------|-----------------------|
| MIN MAX monochrome | number |
| MIN MAX resolution | dpi/dpcm |
| orientation | portrait landscape |
| scan | progressive interlace |
| grid | number |

EXAMPLES

device-min-width: 640px
device-aspect-ratio: 16/9
max-color-index: 256
min-resolution: 300dpi
min-monochrome: 2
grid: 1

MANZ.DEV
WEB DEVELOPER / STREAMER



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#DIADELAPROGRAMACION

F Fonts

FONTS (TYPOGRAPHY)

font-family: font1, font2, font3 ..., genericfont
font-size: size %
smaller **larger**
xx-small **x-small** **small** **medium** **large** **x-large** **xx-large**
font-size-adjust: none number
font-style: normal italic oblique
font-synthesis: none weight style
font-variant: none small-caps
font-weight: normal bold
lighter **bolder**
100 **200** **300** **400** **500** **600** **700** **800** **900**
font: style variant weight stretch size/ line-height family
caption icon menu message-box small-caption status-bar

GENERIC FONT

serif sans-serif cursive fantasy monospace

EXAMPLE `font-family: Verdana, Arial, sans-serif;`

T CSS Text L3

TRANSFORMING TEXT

text-transform: none capitalize uppercase lowercase full-width

WHITE SPACES

white-space: normal pre nowrap pre-wrap pre-line
tab-size: 8 number size

LINE BREAKING & WORD BOUNDARIES

line-break: auto loose normal strict
word-break: normal keep-all break-all

BREAKING WORDS

hyphens: none manual auto
word-wrap: normal break-word
overflow-wrap: normal break-word

ALIGNMENT & JUSTIFICATION

text-align: left right center justify start end match-parent
text-align-last: auto start end left right center justify
text-justify: auto none inter-word distribute

SPACING

word-spacing: normal size
letter-spacing: normal size

EDGE EFFECTS

text-indent: size hanging each-line
hanging-punctuation: none first last force-end allow-end

T CSS Text Decoration

LEVEL 2 (LEGACY)

text-decoration: none underline overline line-through

LEVEL 3

text-decoration-line: none underline overline line-through blink
text-decoration-color:currentColor color
text-decoration-style: solid double dotted dashed wavy
text-decoration-skip: none objects spaces ink edges
box-decoration:

text-decoration: none line style color

text-underline-position: auto under left right

STATUS

filled open

EXAMPLE open circle;

text-emphasis-style: none string

status dot circle double-circle triangle sesame

text-emphasis-color: currentColor color

text-emphasis-position: over under left right

text-emphasis: style color

TEXT SHADOW

text-shadow: none pos-x pos-y blur color

@ CSS Rules

FONT LOADING

```
@font-face {  
  font-family: font;  
  src: url(file.woff) format("woff"),  
       url(file.ttf) format("truetype");  
  unicode-range: U+000-27FF ;  
}
```

FONT FORMATS

embedded-opentype truetype opentype svg woff woff2
EXAMPLE `url(file.ttf) format("truetype");`

MEDIA QUERIES (RESPONSIVE DESIGN)

```
@media all screen print and (...) {  
  property: value;  
}
```

Media features

EXAMPLE `@media screen and (max-width: 640px) { ... }`

CSS IMPORT RULES

```
@import "index.css";  
@import url("index.css");  
@import url("print.css") print;
```

serif font

sans serif font

monospaced font

fantasy font

LINE HEIGHT CALCULATIONS (LEGACY)

line-height: number % size normal

vertical-align: size % baseline middle sub super
text-top text-bottom top bottom

CSS CONDITIONAL

```
@supports not ( feature ) or and ... {  
  property: value;  
}
```

EXAMPLE `@supports not (display: flexbox) .nav { display:block }`



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#DIADELAPROGRAMACION



B CSS Box Model

DIMENSIONS

width: auto | size | %
min-width: 0 | size | %
max-width: none | size | %

height: auto | size | %
min-height: 0 | size | %
max-height: none | size | %

MARGINS/PADDINGS

SPECIFIC MARGINS

margin-top: 0 | size | %
margin-right: 0 | size | %
margin-bottom: 0 | size | %
margin-left: 0 | size | %

SPECIFIC PADDINGS

padding-top: 0 | size | %
padding-right: 0 | size | %
padding-bottom: 0 | size | %
padding-left: 0 | size | %

MARGIN SHORTHAND

margin: top right bottom left
top left right bottom
top bottom left right
top right bottom left

PADDING SHORTHAND

padding: top right bottom left
top left right bottom
top bottom left right
top right bottom left

OVERFLOW/VISIBILITY

overflow-x: visible | hidden | scroll | auto | no-display | no-content
overflow-y: visible | hidden | scroll | auto | no-display | no-content
overflow: overflow-x | overflow-y
visibility: visible | hidden | collapse

BOX TYPES (DISPLAY)

display: inline | none | run-in
block
inline-block
list-item
table-cell
table-row
table-caption
grid
subgrid
flex
flex

CSS MODEL BOX



I CSS Images

GRADIENTS

LINEAR GRADIENTS

background-image: linear-gradient(direction color1 start , color2 start , ...)
repeating-linear-*

RADIAL GRADIENTS

background-image: radial-gradient(shape rsize at pos color1 start , color2 ...)
repeating-radial-*

GRADIENT OPTIONS

| | |
|---------|-------------------|
| shape | rsize |
| circle | radius at pos ... |
| ellipse | rh rv at pos ... |

EXAMPLE (ellipse 55px 45px at top, red, blue)

RADIUS SIZE (RSIZE) ALSO ACCEPT...

closest-side | farthest-side
closest-corner | farthest-corner

IMAGES AND OBJECTS SIZING

object-fit: fill | contain | cover | none | scale-down
object-position: 50% 50% | background-position

IMAGE PROCESSING

image-orientation: 0deg | size
image-resolution: 1dppx | from-image | resolution | snap
image-rendering: auto | crisp-edges | pixelated

START SIZE

size | %

repeating-linear-*

DIRECTION

to top

360deg

left

325deg

bottom

270deg

right

215deg

top

180deg

left

145deg

bottom

90deg

right

35deg

top

230deg

bottom

10deg

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350deg

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5deg

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355deg

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171deg

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CSS

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#DIADELAPROGRAMACION

T CSS Transitions

TRANSITIONS

transition-property: **all** **none** **property1, property2, ...**

transition-duration: **0s** **time**

transition-timing-function: **ease** **timing-function**

transition-delay: **0s** **time**

transition: **property** **duration** **t-function** **delay**

| | |
|------------------------|-----------------------|
| timing-function | cubic-bezier() |
|------------------------|-----------------------|

| | | |
|------------------------|-----------------------|----------------------|
| timing-function | cubic-bezier() | |
| s f s | ease | (0.25, 0.1, 0.25, 1) |
| n n n | linear | (0.00, 0.0, 1.00, 1) |
| s n n | ease-in | (0.42, 0.0, 1.00, 1) |
| n n s | ease-out | (0.00, 0.0, 0.58, 1) |
| s n s | ease-in-out | (0.42, 0.0, 0.58, 1) |

| | |
|------------------------|----------------|
| timing-function | steps() |
|------------------------|----------------|

| | |
|-------------------|------------|
| step-start | (1, start) |
| step-end | (1, end) |
| steps(n) | (n, end) |
| steps(a,b) | (a, b) |

A CSS Animations

ANIMATIONS

animation-name: **none** **name1, name2, ...**

animation-duration: **0s** **time**

animation-timing-function: **ease** **timing-function**

animation-delay: **0s** **time**

animation-iteration-count: **1** **number** **infinite**

animation-direction: **normal** **reverse**

alternate **alternate-reverse**

animation-fill-mode: **none** **forwards** **backwards** **both**

animation-play-state: **running** **paused**

animation: **name** **duration** **t-function** **delay** **it-c** **dir** **f-m** **p-s**

CHAINED (ANIMATION PROPERTY)

| | | |
|------------------|-----------|----------------------------|
| animname1 | 5s | linear , |
| animname2 | 5s | linear 5s , |
| animname3 | 6s | linear 10s ; |

0% = from
100% = to

ANIMATION KEYFRAMES

```
@keyframes animname {
  0% { property: value; ... }
  ...
  100% { property: value; ... }
}
```

@-vendor-keyframes

M CSS Motion Paths

MOTION PATH

motion-path: **none** **url(img.svg)**

basic-shape **path** **geometry-box**

motion-offset: **0** **size %**

motion-rotation: **auto** **reverse** **angle**

motion: **path** **offset** **rotation**

S CSS Scroll Snap

CAPTURING SCROLL SNAP AREAS

scroll-snap-type: **none** **x** **y**
block **inline** **both** **mandatory** **proximity**

ALIGNMENT AND LIMITS

scroll-snap-align: **inline-axis** **block-axis**

scroll-snap-stop: **normal** **always**

SCROLL SNAPPING/SNAPPORT

scroll-padding*: →

scroll-snap-margin*: →

AXIS

none **start** **center** **end**

EXAMPLE scroll-snap-align: start end

SCROLL SNAPPING/SNAPPORT

SNAP MARGIN/PADDING

*-top: **0** **size %**
*-right: **0** **size %**
*-bottom: **0** **size %**
*-left: **0** **size %**

INLINE/BLOCK

*-inline-start: **0** **size %**
*-inline-end: **0** **size %**
*-inline: **start** **end**

*-block-start: **0** **size %**
*-block-end: **0** **size %**
*-block: **start** **end**

T CSS Transforms

TRANSFORM PROPERTY

transform: **none** **transform1** **transform2** ...

2D TRANSFORMS

transform: **translateX(size %)**

transform: **translateY(size %)**

transform: **translate(size % , size %)**

transform: **scaleX(number)**

transform: **scaleY(number)**

transform: **scale(number , number)**

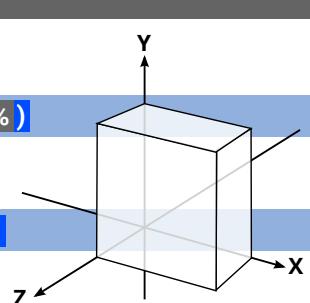
transform: **skewX(angle)**

transform: **skewY(angle)**

transform: **skew(angle , angle)**

transform: **rotate(angle)**

transform: **matrix(n1, n2, n3, n4, n5, n6)**



3D TRANSFORMS

transform: **translateZ(size)**

transform: **translate3d(size % , size % , size)**

transform: **scaleZ(number)**

transform: **scale3d(number , number , number)**

transform: **rotateX(angle)**

transform: **rotateY(angle)**

transform: **rotateZ(angle)**

transform: **rotate3d(number , number , number , angle)**

transform: **perspective(size)**

transform: **matrix3d(n1, n2, n3, n4, n5, n6, ..., n16)**

TRANSFORMS OPTIONS

transform-origin: **50% 50%** **pos-x** **pos-y** **pos-z**

transform-style: **flat** **preserve-3d**

backface-visibility: **visible** **hidden**

PERSPECTIVE OPTIONS

perspective: **none** **size**

perspective-origin: **50% 50%** **pos-x** **pos-y** **pos-z**

C CSS Multi Columns

COLUMNS

column-width: **auto** **size**

column-count: **auto** **number**

columns: **width** **counter**

COLUMN RULES

column-rule-width: **size** **thin** **medium** **thick**

column-rule-style: **style** **none**

column-rule-color: **color**

column-rule: **width** **style** **color**

COLUMN BREAKS

break-before/break-after: **auto** **always** **avoid** **left** **right**

page **column** **avoid-page** **avoid-column**

break-inside: **auto** **avoid** **avoid-page** **avoid-column**

SPANNING, FILLING AND GAPS

column-span: **none** **all**

column-fill: **auto** **balance**

column-gap: **size** **normal**



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#DIADELAPROGRAMACION

F CSS Flexbox

CONTAINER PROPERTIES

ORDERING AND ORIENTATION

flex-direction: row | row-reverse | column | column-reverse

flex-wrap: nowrap | wrap | wrap-reverse

flex-flow: direction | wrap

PRIMARY AXIS

justify-content: flex-start | center | flex-end

space-between | space-around

SECONDARY AXIS

align-items: flex-start | center | flex-end | baseline | stretch

MULTI-LINE CONTAINER PROPERTIES

align-content: flex-start | center | flex-end | stretch

space-between | space-around

ITEM PROPERTIES

FLEXIBILITY

flex-grow: 0 | number

flex-shrink: 0 | number

flex-basis: auto | content | size %

flex: grow | shrink | basis

ALIGNMENT AND ORDERING

align-self: auto | flex-start | center | flex-end | baseline | stretch

order: 0 | number

A CSS Align

CONTAINER PROPERTIES

CONTENT DISTRIBUTION

justify-content/align-content:

normal | baseline-position

space-between | space-around | space-evenly | stretch

overflow-pos | self-position

OVERFLOW POSITION

safe | unsafe

SELF-POSITION

start | center | end (self, content)

flex-start | flex-end idem (only flex)

self-start | self-end (self)

left | right (self, content) fallback: start

BASELINE-POSITION

baseline | last-baseline

PRIMARY AXIS

justify-items: auto | normal | stretch | baseline-position

overflow-pos | self-position

legacy | left | center | right

SECONDARY AXIS

align-items: normal | stretch | baseline-position

overflow-pos | self-position

ITEM PROPERTIES

PRIMARY AXIS

justify-self: auto | normal | stretch | baseline-position

overflow-pos | self-position

SECONDARY AXIS

align-self: auto | normal | stretch | baseline-position

overflow-pos | self-position

TABLES

border-collapse: separate | collapse

caption-side: top | bottom

border-spacing: size-h | size-v

empty-cells: show | hide

table-layout: auto | fixed

P Positioning

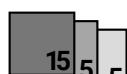
POSITIONING

position: static | relative | absolute | fixed | sticky

FLOATING

float: none | left | right

clear: none | left | right | both



POSITIONING (NOT STATIC POSITION)

top: auto | size | %

left: auto | size | %

right: auto | size | %

bottom: auto | size | %

z-index: auto | number

G CSS Grids

CONTAINER GRIDS

EXPLICIT GRID

grid-template-columns: none | track1 | track2 | ...

grid-template-rows: none | track1 | track2 | ...

TRACKS

- auto | size | % | fr automatic size or specific size/fraction unit
- [linename] auto size | % | fr named grid lines + specific size
- minmax(min, max) min <= size range <= max
- repeat(number, tracks) repeat fragments n times
- repeat(auto-fill, tracks) repeated fragments and fill space
- repeat(auto-fit, tracks) repeated fragments and fit space
- max-content | min-content largest max/min content track
- fit-content(size %) ~ min(max-content, max(auto, arg))

AREA GRID

grid-template-areas: "area1" | "area2" | ... | "areaY" | "areaZ"

AREAS

- area grid area name (grid-area)
- . empty grid area cell
- none no grid areas are defined

EXAMPLE

```
#grid { display:grid;
grid-template-areas: "head head"
                     "nav main"
                     "foot foot"; }
```

SHORTHAND TEMPLATE GRID

grid-template: none

template-rows | / template-columns

template-areas + template-rows/columns

IMPLICIT GRID

grid-auto-columns: auto | size | %

grid-auto-rows: auto | size | %

grid-auto-flow: row | column | dense

GUTTERS (GAPS)

grid-column-gap: 0 | size | %

grid-row-gap: 0 | size | %

grid-gap: row-gap | column-gap

SHORTHAND GRID

grid: template

template-rows | / auto-flow | dense | grid-auto-columns

auto-flow | dense | grid-auto-rows | / template-columns

ITEM GRIDS

LINE-BASED PLACEMENT

grid-column-start/grid-column-end: auto | line

grid-row-start/grid-row-end: auto | line

grid-column: column-start | column-end

grid-row: row-start | row-end

LINES

► number | name refer to a numbered or named grid line

► span | number | name span across until grid line

PLACEMENT SHORTHANDS

grid-area: template-area

row-start | / column-start | / row-end | / column-end

Created by @Manz (<https://manz.dev/>)

#DIADELAPROGRAMACION

JS

n Number() = 42

PROPERTIES

- n.POSITIVE_INFINITY** +oo equivalent
- n.NEGATIVE_INFINITY** -oo equivalent
- n.MAX_VALUE** largest positive value
- n.MIN_VALUE** smallest positive value
- n.EPSILON** diff between 1 & smallest >1
- n.NaN** not-a-number value

METHODS

- s.toExponential(dec)** exp. notation
- s.toFixed(dec)** fixed-point notation
- s.toPrecision(p)** change precision
- b.isFinite(n)** check if number is finite
- b.isInteger(n)** check if number is int.
- b.isNaN(n)** check if number is NaN
- n.parseInt(s, radix)** string to integer
- n.parseFloat(s, radix)** string to float

r Regexp() = /./ig

PROPERTIES

- n.lastIndex** index to start global regexp
- s.flags** active flags of current regexp
- b.global** flag g (search all matches)
- b.ignoreCase** flag i (match lower/upper)
- b.multiline** flag m (match multiple lines)
- b.sticky** flag y (search from lastIndex)
- b.unicode** flag u (enable unicode feat.)
- s.source** current regexp (w/o slashes)

METHODS

- a.exec(str)** exec search for a match
- b.test(str)** check if regexp match w/str

CLASSES

- .any character \t tabulator
- \d digit [0-9] \r carriage return
- \D no digit [^0-9] \n line feed
- \w any alphanumeric char [A-Za-z0-9_]
- \W no alphanumeric char [^A-Za-z0-9_]
- \s any space char (space, tab, enter...)
- \S no space char (space, tab, enter...)
- \xN char with code N [\b] backspace
- \uN char with unicode N \0 NUL char

CHARACTER SETS OR ALTERNATION

- [abc] match any character set
- [^abc] match any char. set not enclosed
- a|b match a or b

BOUNDARIES

- ^ begin of input \$ end of input
- \b zero-width word boundary
- \B zero-width non-word boundary

GROUPING

- (x) capture group (?:(x)) no capture group
- \n reference to group n captured

QUANTIFIERS

- x* preceding x 0 or more times {0,}
- x+ preceding x 1 or more times {1,}
- x? preceding x 0 or 1 times {0,1}
- x{n} n occurrences of x
- x{n,m} at least n occurrences of x
- x{n,m} between n & m occurrences of x

ASSERTIONS

- x(?=y) x (only if x is followed by y)
- x(?!y) x (only if x is not followed by y)

s String() = 'text'

PROPERTIES

n.length string size

METHODS

- s.charAt(index)** char at position [i]
- n.charCodeAt(index)** unicode at pos.
- n.codePointAt(index)** cp at position
- s.fromCharCode(n1, n2...)** code to char
- s.fromCodePoint(n1, n2...)** cp to char
- s.concat(str1, str2...)** combine text +
- b.startsWith(str, size)** check beginning
- b.endsWith(str, size)** check ending
- b.includes(str, from)** include substring?
- n.indexOf(str, from)** find substr index
- n.lastIndexOf(str, from)** find from end
- n.search(regex)** search & return index
- n.localeCompare(str, locale, options)**
- a.match(regex)** matches against string
- a.matchAll(regex)** return iterator w/all
- s.normalize(form)** unicode normalize
- s.padEnd(len, pad)** add end padding
- s.padStart(len, pad)** add start padding
- s.repeat(n)** repeat string n times
- s.replace(str|regex, newstr|func)**
- s.slice(ini, end)** str between ini/end
- s.substr(ini, len)** substr of len length
- s.substring(ini, end)** substr fragment
- a.split(sep|regex, limit)** divide string
- s.toLowerCase()** string to lowercase
- s.toUpperCase()** string to uppercase
- s.trim()** remove space from begin/end
- s.trimEnd()** remove space from end
- s.trimStart()** remove space from begin
- s.raw``** template strings with \${vars}

d Date()

METHODS

- n.UTC(y, m, d, h, i, s, ms)** timestamp
- n.now()** timestamp of current time
- n.parse(str)** convert str to timestamp
- n.setTime(ts)** set UNIX timestamp
- n.getTime()** return UNIX timestamp

UNIT GETTERS / SETTERS (ALSO .getUTC*()/.setUTC*())

- n.get / .setFullYear(y, m, d)** (yyyy)
- n.get / .setMonth(m, d)** (0-11)
- n.get / . setDate(d)** (1-31)
- n.get / .setHours(h, m, s, ms)** (0-23)
- n.get / .setMinutes(m, s, ms)** (0-59)
- n.get / .setSeconds(s, ms)** (0-59)
- n.get / .setMilliseconds(ms)** (0-999)
- n.getDay()** return day of week (0-6)

LOCALE & TIMEZONE METHODS

- n.getTimezoneOffset()** offset in mins
- s.toLocaleDateString(locale, options)**
- s.toLocaleTimeString(locale, options)**
- s.toLocaleString(locale, options)**
- s.toUTCString()** return UTC date
- s.toDateString()** return American date
- s.toTimeString()** return American time
- s.toISOString()** return ISO8601 date
- s.toJSON()** return date ready for JSON

a Array() = [1, 2, 3]

PROPERTIES

n.length number of elements

METHODS

- b.isArray(obj)** check if obj is array
- b.includes(obj, from)** include element?
- n.indexOf(obj, from)** find elem. index
- n.lastIndexOf(obj, from)** find from end
- s.join(sep)** join elements w/separator
- a.slice(ini, end)** return array portion
- a.concat(obj1, obj2...)** return joined array
- a.flat(depth)** return flat array at n depth

MODIFY SOURCE ARRAY METHODS

- a.copyWithin(pos, ini, end)** copy elems
- a.fill(obj, ini, end)** fill array with obj
- a.reverse()** reverse array & return it
- a.sort(cf(a,b))** sort array (unicode sort)
- a.splice(ini, del, o1, o2...)** del&add elem

ITERATION METHODS

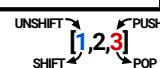
- a.entries()** iterate key/value pair array
- a.keys()** iterate only keys array
- a.values()** iterate only values array

CALLBACK FOR EACH METHODS

- b.every(cb(e,i,a), arg)** test until false
- b.some(cb(e,i,a), arg)** test until true
- a.map(cb(e,i,a), arg)** make array
- a.filter(cb(e,i,a), arg)** make array w/true
- o.find(cb(e,i,a), arg)** return elem w/true
- n.findIndex(cb(e,i,a), arg)** return index
- a.flatMap(cb(e,i,a), arg)** map + flat(1)
- z.forEach(cb(e,i,a), arg)** exec for each
- o.reduce(cb(p,e,i,a), arg)** accumulative
- o.reduceRight(cb(p,e,i,a), arg)** from end

ADD/REMOVE METHODS

- o.pop()** remove & return last element
- n.push(o1, o2...)** add elem & return length
- o.shift()** remove & return first element
- n.unshift(o1, o2...)** add elem & return len

**f** Function() = function(a, b) { ... }

PROPERTIES

- o.length** return number of arguments
- s.name** return name of function
- o.prototype** prototype object

METHODS

- o.call(newthis, arg1, arg2...)** change this
- o.apply(newthis, arg1)** with args array
- o.bind(newthis, arg1, arg2...)** bound func

n number**d** date**N** NaN (not-a-number)**r** regular expression**s** string**f** function**b** boolean (true/false)**o** object**a** array**u** undefined

available on ECMAScript 2015 or higher

n static (ex: Math.random())**n** non-static (ex: new Date().getDate())

argument required

argument optional

Created by @Manz (<https://manz.dev/>)

#DIADELAPROGRAMACION

Math

PROPERTIES

- n.E** Euler's constant
- n.LN2** natural logarithm of 2
- n.LN10** natural logarithm of 10
- n.LOG2E** base 2 logarithm of E
- n.LOG10E** base 10 logarithm of E
- n.PI** ratio circumference/diameter
- n.SQRT1_2** square root of 1/2
- n.SQRT2** square root of 2

METHODS

- n.abs(x)** absolute value
- n.cbrt(x)** cube root
- n.clz32(x)** return leading zero bits (32)
- n.exp(x)** return e^x
- n.expm1(x)** return $e^x - 1$
- n.hypot(x1, x2...)** length of hypotenuse
- n.imul(a, b)** signed multiply
- n.log(x)** natural logarithm (base e)
- n.log1p(x)** natural logarithm (1+x)
- n.log10(x)** base 10 logarithm
- n.log2(x)** base 2 logarithm
- n.max(x1, x2...)** return max number
- n.min(x1, x2...)** return min number
- n.pow(base, exp)** return $base^{exp}$ **
- n.random()** float random number [0,1)
- n.sign(x)** return sign of number
- n.sqrt(x)** square root of number

ROUND METHODS

- n.ceil(x)** superior round (smallest)
 - n.floor(x)** inferior round (largest)
 - n.fround(x)** nearest single precision
 - n.round(x)** round (nearest integer)
 - n.trunc(x)** remove fractional digits
- | | |
|---|--------------------|
| TRIGONOMETRIC METHODS | HYPERBOLIC METHODS |
| n.acos(x) arccosine | n.acosh(x) |
| n.asin(x) arcsine | n.asinh(x) |
| n.atan(x) arctangent | n.atanh(x) |
| n.cos(x) cosine | n.cosh(x) |
| n.sin(x) sine | n.sinh(x) |
| n.tan(x) tangent | n.tanh(x) |
| n.atan2(x, y) arctangent of quotient x/y | |

BigInt() = 9007199254740992n

ES Modules

METHODS

```
import {m1, m2 as name} from "./file.js"
import obj from "./file.js" default import
export {m1, m2} export objs as modules
p import("./file.js") dynamic import
```

JSON

json file manipulation

METHODS

- n.parse(str, tf(k,v))** parse string to object
- n.stringify(obj, repf|wl, sp)** convert to str

e Error()

PROPERTIES

- s.name** return name of error
- s.message** return description of error

EvalError(), InternalError(), RangeError(), URIError(), ReferenceError(), SyntaxError(), TypeError()

o Object() = {key: value, key2: value2}

PROPERTIES

o.constructor return ref. to object func.

METHODS

- o.assign(dst, src1, src2...)** copy values
- o.create(proto, prop)** create obj w/prop
- o.defineProperties(obj, prop)**
- o.defineProperty(obj, prop, desc)**
- o.freeze(obj)** avoid properties changes
- o.getOwnPropertyDescriptor(obj, prop)**
- a.getOwnPropertyNames(obj)**
- a.getOwnPropertySymbols(obj)**
- o.getPrototypeOf(obj)** return prototype
- b.is(val1, val2)** check if are same value
- b.isExtensible(obj)** check if can add prop
- b.isFrozen(obj)** check if obj is frozen
- b.isSealed(obj)** check if obj is sealed
- a.keys(obj)** return only keys of object
- o.preventExtensions(obj)** avoid extend
- o.seal(obj)** prop are non-configurable
- o.setPrototypeOf(obj, prot)** change prot

INSTANCE METHODS

- b.hasOwnProperty(prop)** check if exist
- b.isPrototypeOf(obj)** test in another obj
- b.propertyIsEnumerable(prop)**
- s.toString()** return equivalent string
- s.toLocaleString()** return locale version
- o.valueOf()** return primitive value

p Promise() async / await async functions

METHODS

- p.all(obj)** return promise
- p.catch(onRejected(s))** = .then(undefined, s)
- p.finally(onFinish())** exec callback always
- p.then(onFulfilled(v), onRejected(s))**
- p.race(obj)** return greedy promise (res/rej)
- p.resolve(obj)** return resolved promise
- p.reject(reason)** return rejected promise
- p.allSettled(obj)** return all fullfill/reject

p Proxy() Reflect same methods (not func)

METHODS

- o.apply(obj, arg, arglist)** trap function call
- o.construct(obj, arglist)** trap new oper
- o.defineProperty(obj, prop, desc)**
- o.deleteProperty(obj, prop)** trap delete
- o.enumerate(obj)** trap for...in
- o.get(obj, prop, rec)** trap get property
- o.getOwnPropertyDescriptor(obj, prop)**
- o.getPrototypeOf(obj)**
- o.has(obj, prop)** trap in operator
- o.ownKeys(obj)**
- o.preventExtensions(obj)**
- o.set(obj, prop, value)** trap set property
- o.setPrototypeOf(obj, proto)**

Symbol()

PROPERTIES

- s.iterator** specifies default iterator
- s.match** specifies match of regexp
- s.species** specifies constructor function

METHODS

- s.for(key)** search existing symbols
- s.keyFor(sym)** return key from global reg

s Set()

PROPERTIES

n.size return number of items

METHODS

- s.add(item)** add item to set ws
- b.has(item)** check if item exists ws
- b.delete(item)** del item & return if del ws
- /clear()** remove all items from set

ITERATION METHODS

- s.entries()** iterate items
- s.values()** iterate only value of items

CALLBACK FOR EACH METHODS

/forEach(cb(e,i,a), arg) exec for each

m Map()

PROPERTIES

n.size return number of elements

METHODS

- m.set(key, value)** add pair key=value wm
- o.get(key)** return value of key wm
- b.has(key)** check if key exist wm
- b.delete(key)** del elem. & return if ok wm
- /clear()** remove all elements from map

ITERATION METHODS

- m.entries()** iterate elements
- m.keys()** iterate only keys
- m.values()** iterate only values

CALLBACK FOR EACH METHODS

/forEach(cb(e,i,a), arg) exec for each

g Generator() = function* () { ... }

METHODS

- o.next(value)** return obj w/{value,done}
- o.return(value)** return value & true done
- /throw(except)** throw an error

globals

includes isFinite, isNaN, parseInt & parseFloat

METHODS

- o.eval(str)** evaluate javascript code
- s.encodeURIComponent(URI)** = to %3D
- s.decodeURIComponent(URI)** %3D to =

Others

VARIABLE / CONSTANT DECLARATIONS

```
var deprecated variable let block scope
const declare constant (read-only)
```

OPERATORS

- ??** nullish coalescing operator
- .?** optional chaining

FAST TIPS

- func(a=1)** default parameter value
- func(...a)** rest argument (spread operator)
- (a) => { ... }** function fat arrow (w/o this)
- `string \${a}`** template with variables
- 0b** binary (2) number n to decimal
- 0o** octal (8) number n to decimal
- 0x** hexadecimal (16) number n to decimal
- for (i in array) { ... }** iterate array, i = index
- for (e of array) { ... }** iterate array, e = value
- class B extends A () {}** class sugar syntax



JAVASCRIPT

JS

Created by @Manz (<https://manz.dev/>)

#DIADELAPROGRAMACION

window = Browser global object**PROPERTIES**

- b**.closed check if window is closed
- n**.devicePixelRatio ratio vertical size pix
- b**.fullScreen check if window is fullscreen
- n**.innerWidth width size (incl. scrollbar)
- n**.innerHeight height size (incl. scrollbar)
- n**.outerWidth width size (incl. browser)
- n**.outerHeight height size (incl. browser)
- n**.length number of frames
- s**.name inner name of window
- s**.status bottom statusbar text

API/OBJECTS PROPERTIES

- o**.applicationCache offline resources API
- o**.console console browser API
- o**.crypto cryptographic API
- o**.history session page history API
- o**.location information about URL API
- o**.localStorage storage for site domain
- o**.sessionStorage storage until closed
- o**.navigator information about browser
- o**.performance data about performance

SCREEN PROPERTIES

- o**.screen information about screen
- n**.screenX horizontal pos browser/screen
- n**.screenY vertical pos browser/screen
- n**.pageXOffset horizontal pixels scrolled
- n**.pageYOffset vertical pixels scrolled

WINDOW PROPERTIES

- o**.opener window that opened this window
- o**.parent parent of current window/frame
- o**.self this window (equal to .window)
- o**.top top window of current win/frame

METHODS

- s**.btoa(**str**) encode string to base64
- s**.atob(**str**) decode base64 string to text
- z**.focus() request send window to front
- z**.blur() remove focus from window
- o**.getSelection(**id**) return Selection object
- z**.postMessage(**msg**, **dst**, **transf**) send
- o**.open(**url**, **name**, **options**) open popup
- z**.stop() stop window loading
- b**.find(**str**, **case**, **back**, **wrap**, **word**, **fr**, **d**)
- z**.print() open print document window

ANIMATION METHODS

- n**.requestAnimationFrame(**cb(n)**)
- z**.cancelAnimationFrame(**reqID**)

TIMER METHODS

- n**.setTimeout(**f(a...)**, **ms**, **a...**) delay&run
- z**.clearTimeout(**id**) remove timeout
- n**.setInterval(**f(a...)**, **ms**, **a...**) run every
- z**.clearInterval(**id**) remove interval

SCREEN METHODS

- z**.scrollBy(**x**, **y**) scroll x,y pixels (relative)
- z**.scrollTo(**x**, **y**) scroll x,y pixels (absolute)
- z**.moveBy(**x**, **y**) move window by x,y (rel)
- z**.moveTo(**x**, **y**) move window to x,y (abs)
- z**.resizeBy(**x**, **y**) resize win by x,y (rel)
- z**.resizeTo(**w**, **h**) resize win to WxX (abs)

STYLESHEET METHODS

- o**.getComputedStyle(**elem**, **pseudelem**)
- a**.matchMedia(**mediaq**) match CSSMQ

screen = info about screen / resolution**PROPERTIES**

- n**.availTop top-from space available
- n**.availLeft left-from space available
- n**.availWidth width space available
- n**.availHeight height space available
- n**.width screen width resolution
- n**.height screen height resolution
- n**.colorDepth screen color depth (bits)
- n**.pixelDepth screen pixel depth (bits)

METHODS

- b**.lockOrientation(**mode|modearray**)
- b**.unlockOrientation() remove locks

console = unofficial console browser API**METHODS**

- z**.assert(**cond**, **str|obj1...**) set a assert
- z**.count(**str**) count (show number times)
- z**.dir(**obj**) show object (expanded debug)
- z**.group() open new message group
- z**.groupCollapsed() open new group coll.
- z**.groupEnd() close previous group
- z**.table(**array|obj**, **colnames**) show table
- z**.trace() show code trace
- z**.timeStamp(**str**) put time on timeline

PERFORMANCE METHODS

- z**.profile(**name**) start performance profile
- z**.profileEnd(**name**) stop perf. profile
- z**.time(**name**) start performance timer
- z**.timeEnd(**name**) stop perf. timer

LOG LEVEL METHODS

- z**.log(**str|obj1...**) output message
- z**.info(**str1|obj1...**) output information
- z**.warn(**str1|obj1...**) output warning
- z**.error(**str1|obj1...**) output error

window = global interaction func.**METHODS****USER INTERACTION METHODS**

- z**.alert(**str**) show message (ok button)
- s**.prompt(**str**, **def**) ask answer to user
- b**.confirm(**str**) show message (ok, cancel)

history = page history on tab**PROPERTIES**

- n**.length number of pages in historytab
- n**.state return state top history stack

METHODS

- z**.back() go prev page (same as .go(-1))
- z**.forward() go next page (same as .go(1))
- z**.go(**n**) go **n** page (positive or negative)
- z**.pushState(**obj**, **title**, **url**) insert state
- z**.replaceState(**obj**, **title**, **url**) repl. state

storage localStorage / sessionStorage**PROPERTIES**

- n**.length number of items in storage

METHODS

- s**.key(**n**) return key name on position **n**
- s**.getItem(**key**) return value of item key
- z**.setItem(**key**, **value**) set or update key
- z**.removeItem(**key**) delete item with key
- z**.clear() delete all items for current site

performance = info about performance**PROPERTIES**

- o**.navigation info about redir/type nav.
- o**.timing info about latency-load perf.

METHODS

- n**.now() high precision timestamp

navigator = info about browser**PROPERTIES**

- b**.cookieEnabled browser cookies on?
- n**.doNotTrack DNT privacy enabled?
- o**.geolocation user-info geolocation
- s**.language language in browser
- n**.maxTouchPoints max on device
- b**.onLine browser work in online mode?
- s**.userAgent identify browser of user

METHODS

- n**.vibrate(**n|pattern**) use device vibration

location = info about current URL**PROPERTIES**

- s**.href full document url
- s**.protocol <https://www.emezeta.com/>
- s**.username <https://user:pass@www>
- s**.password <https://user:pass@www>
- s**.host <https://emezeta.com:81/>
- s**.hostname <https://emezeta.com:81/>
- s**.port <https://emezeta.com:81/>
- s**.pathname <http://emezeta.com/42/>
- s**.hash <http://emezeta.com/#contacto>
- s**.search <http://google.com/?q=emezeta>
- o**.searchParams search params object
- s**.origin source origin of document url

onClick="..." (HTML) .onclick = (JS func) 'click' (Listener)

events (only popular events)**MOUSE EVENTS**

- | | |
|------------------------|-------------------------|
| e .onClick | e .onDoubleClick |
| e .onMouseDown | e .onMouseUp |
| e .onMouseEnter | e .onMouseLeave |
| e .onMouseMove | e .onMouseOver |
| e .onMouseOut | e .onWheel |

KEYBOARD EVENTS

- | | |
|----------------------|-------------------|
| e .onKeyDown | e .onKeyUp |
| e .onKeyPress | |

LOAD/OBJECT EVENTS

- | | |
|------------------------------|--------------------|
| e .onDOMContentLoaded | e .onLoad |
| e .onAbort | e .onError |
| e .onResize | e .onScroll |
| e .onBeforeUnload | e .onUnload |

FORM/FIELDS EVENTS

- | | |
|---------------------|--------------------|
| e .onBlur | e .onFocus |
| e .onChange | e .onInput |
| e .onInvalid | e .onSelect |
| e .onReset | e .onSubmit |

ANIMATION/TRANSITION EVENTS

- | | |
|-----------------------|-----------------------|
| e .onDragEnter | e .onDragLeave |
| e .onDragStart | e .onDragEnd |
| e .onDragOver | e .onDrag |
| e .onDrag | e .onDrop |

ANIMATION/TRANSITION EVENTS

- | | |
|--------------------------------|--------------------------|
| e .onAnimationStart | e .onAnimationEnd |
| e .onAnimationIteration | e .transitionEnd |



LENGUAJE DE PROGRAMACIÓN

JAVASCRIPT

Created by @Manz (<https://manz.dev/>)

lenguajejs.com

#DIADELAPROGRAMACION

JS

document = Document object

PROPERTIES

- s.characterSet** document charset
- s.compatMode** quirks or standard mode
- s.cookie** return all cookies doc string
- s.designMode** return design mode status
- s.dir** return direction text: "rtl" or "ltr"
- s.doctype** return document type (DTD)
- s.domain** return document domain
- s.documentElement** return document URL
- s.lastModified** return date/time modifc.
- s.origin** return document's origin
- s.readyState** return current load status
- s.referrer** return previous page (referrer)
- s.title** return document title
- s.URL** return HTML document URL
- s.location** information about URL

ELEMENTS PROPERTIES

- s.activeElement** focused element
- s.body** return body element
- s.currentScript** return active script
- s.defaultView** return window element
- s.documentElement** first element (root)
- s.head** return head element
- s.scrollingElement** first scrollable elem.

DOCUMENT ARRAY PROPERTIES

- a.anchors** array of images elements
- a.applets** array of applets elements
- a.embeds** array of embeds elements
- a.forms** array of forms elements
- a.images** array of images elements
- a.links** array of links elements
- a.plugins** array of plugins elements
- a.scripts** array of scripts elements

STYLESHEET PROPERTIES

- a.styleSheets** array of style files elem
- a.preferredStyleSheetSet** preferred css
- a.selectedStyleSheetSet** selected css

METHODS

- s.adoptNode(node)** adopt from ext doc
- s.createAttribute(name)** create Attr obj
- s.createDocumentFragment()**
- s.createElement(tag)** create Element obj
- s.createEvent(type)** create Event object
- s.createRange()** create Range object
- s.createTextNode(text)** create TextNode
- s.enableStyleSheetsForSet(name)**
- s.importNode(node, desc)** import copy
- s.getElementById(id)** find elem with id
- a.getElementsByName(name)** w/ name
- s.getSelection(id)** return Selection object

e Element() = Element object

PROPERTIES

- s.accessKey** if exist, shortcut key
- s.attributes** array of Attr objects
- s.classList** DOMTokenList of classes
- s.className** classes list to string
- s.id** id string of element
- s.name** name string of element
- s.tagName** HTML tag of element

POSITION, SIZE AND SCROLL PROPERTIES

- n.clientTop** top border width element
- n.clientLeft** left border width element
- n.clientWidth** inner width element
- n.clientHeight** inner height element
- n.scrollTop** top-position in document
- n.scrollLeft** left-position in document
- n.scrollWidth** width of element
- n.scrollHeight** height of element

GET/SET HTML CODE PROPERTIES

- s.innerHTML** get/set HTML inside elem
- s.outerHTML** get/set HTML (incl. elem)

METHODS

- a.closest(selec)** closest ancestor
- a.getElementsByClassName(class)**
- a.getElementsByTagName(tag)**
- s.querySelector(selec)** return first elem
- a.querySelectorAll(selec)** return elems
- b.matches(selec)** match with this elem?
- s.insertAdjacentHTML(posstr, html)**

ATTRIBUTE METHODS

- b.hasAttributes()** exists attributes?
- b.hasAttribute(name)** exist attribute?
- s.getAttribute(name)** return value
- s.removeAttribute(name)** del attribute
- s.setAttribute(name, value)** set attrib.

CLIENTRECT (POSITION AND SIZES) METHODS

- a.getBoundingClientRect()** return pos.
- a.getClientRects()** return pos/size array

e Event() = Event on action

PROPERTIES

- b.bubbles** true=bubble, false=captures
- b.cancelable** event is cancelable?
- s.currentTarget** current element
- b.defaultPrevented** preventDefault() call
- n.detail** additional event info
- n.eventPhase** current stage (0-3)
- b.isTrusted** user action or dispatched
- s.target** reference to dispatched object
- n.timeStamp** time when was created
- s.type** type of event

METHODS

- s.preventDefault()** cancel event
- s.stopImmediatePropagation()**
- s.stopPropagation()** prevent being called

t EventTarget (use over elements)

METHODS

- s.addEventListener(ev, cb(ev), capt)**
- s.removeEventListener(ev, cb(ev), capt)**
- b.dispatchEvent(ev)**

a Attr() = Attribute object

PROPERTIES

- s.name** name of element attribute
- s.value** value of element attribute

t DOMTokenList() = List of classes

PROPERTIES

- n.length** number of items

METHODS

- b.contains(item)** check if item exists
- s.add(item)** add item to list
- s.item(n)** return item number n
- s.remove(item)** del item from list
- b.toggle(item)** del item if exist, add else

n Node() = Minor element (elem. or text)

PROPERTIES

- s.baseURI** absolute base URL of node
- s.namespaceURI** namespace of node
- s.nodeName** name of node
- s.nodeType** 1=element, 2=text, 9=doc
- s.nodeValue** value of node
- s.prefix** namespace prefix of node
- s.textContent** text of node and children

NAVIGATION PROPERTIES

- s.childNodes** children nodes collection
- s.firstChild** first children (include text)
- s.lastChild** last children (include text)
- s.nextSibling** immediate next node
- s.previousSibling** immediate prev node
- s.parentElement** immediate parent elem
- s.parentNode** immediate parent node
- s.ownerDocument** return document

METHODS

- s.appendChild(node)** add node to end
- s.cloneNode(child)** duplicate node
- s.compareDocumentPosition(node)**
- b.contains(node)** node is descendant?
- b.hasChildNodes()** node has childs?
- s.insertBefore(newnode, node)**
- b.isDefaultNamespace(nsURI)**
- b.isEqualNode(node)** check if are equal
- s.lookupNamespaceURI()** ret namesp.
- s.lookupPrefix()** return prefix for a ns
- s.normalize()** normalize-form children
- s.removeChild(node)** del node & return
- s.replaceChild(newnode, oldnode)**

c ChildNode()

METHODS

- s.remove()** remove specified node

p ParentNode()

PROPERTIES

- n.childElementCount** number of children
- s.children** children elements
- s.firstElementChild** first children elem.
- s.lastElementChild** last children elem.

n NonDocumentTypeChildNode()

PROPERTIES

- s.nextElementSibling** next element
- s.previousElementSibling** prev element

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