

HTML5 WEB DEVELOPMENT



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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 noindexnofollownone
noarchive nosnippet noodp
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"

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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 autofill 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

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 | | |
| <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> | |
|
 <rtc> | ruby base & container | <ruby> | |
| <spacer> | whitespace | use CSS instead | |
| <strike> | strikethrough text | <s> | |
| <ttx> | 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 <INPUT> & <TEXTAREA>

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

NUMBER VALIDATIONS ONLY <INPUT>

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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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 help
license prev next search tag opener noreferrer
noopen noreferrer
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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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

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 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

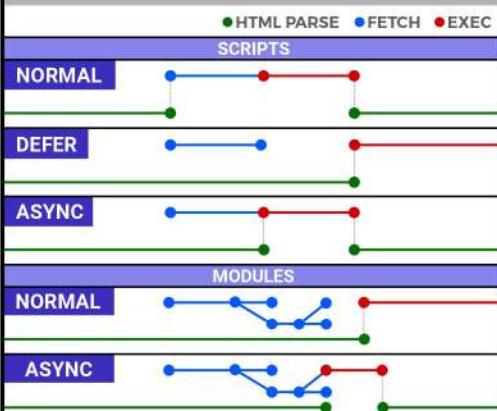
SCRIPTING ELEMENTS

<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> insert 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-elm> 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