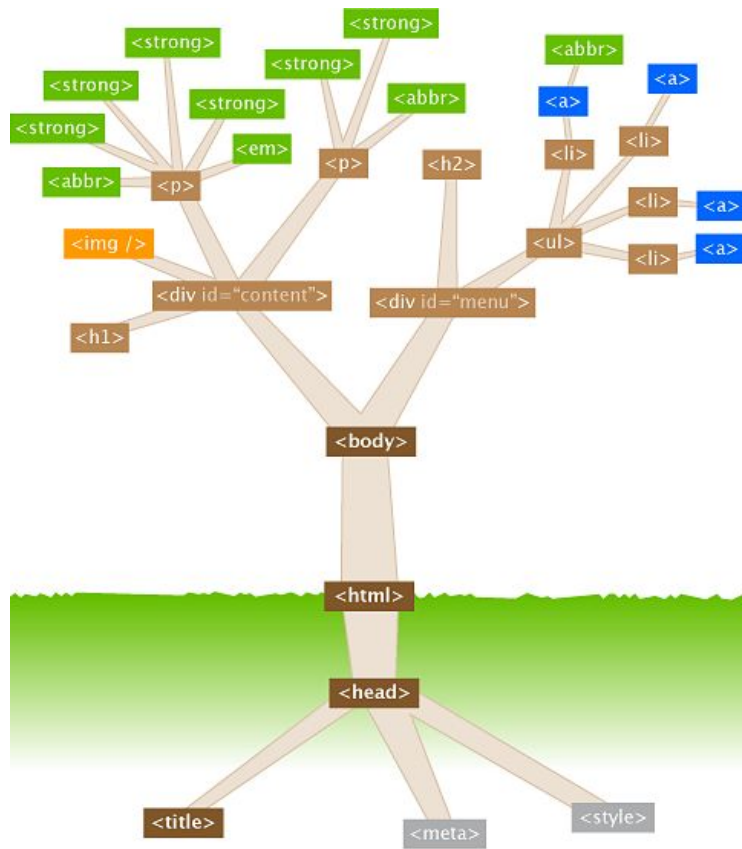# CSS – Properties

the css coding elements

Agenda

- Properties
  - Positioning (repetition)
  - Border
  - Colors
  - Text/Fonts
- Units
- Questions

Learning Objectives

- You know the color properties.
- You are familiar with font/text properties.
- You know the existing css units

CSS Properties

- CSS Properties can be grouped
  - Easy to remember
- Groups
  - Colors
  - Text formatting
  - Positioning
  - Layouting properties
  - Animations
  - Transformations
  - etc.

text formatting

Just like in MS Office Word

Formatting text

Adjusting fonts

Changing colors

Property	Description
color	Sets the color of text
direction	Specifies the text direction/writing direction
letter-spacing	Increases or decreases the space between characters in a text
line-height	Sets the line height
text-align	Specifies the horizontal alignment of text
text-decoration	Specifies the decoration added to text
text-indent	Specifies the indentation of the first line in a text-block
text-shadow	Specifies the shadow effect added to text
text-transform	Controls the capitalization of text
text-overflow	Specifies how overflowed content that is not displayed should be signaled to the user
unicode-bidi	Used together with the direction property to set or return whether the text should be overrid languages in the same document
vertical-align	Sets the vertical alignment of an element
white-space	Specifies how white-space inside an element is handled
word-spacing	Increases or decreases the space between words in a text

color	#RRGGBB (Red, Green, Blue hex values)	any element that contains text
text-align	left | right | center | justify	block elements h1..h6, p, li, etc.
text-decoration	none | underline | overline | line-through | blink | inherit	mostly with a (anchor) elements
text-transformation	none | capitalize | uppercase | lowercase	any element that contains text
line-height	% or px	block elements h1..h6, p, li, etc.
letter-spacing	normal or px value	any element that contains text
font-family	font or font-family [, font or font-family ...]	any element that contains text
font-size	px or em value	any element that contains text
font-style	normal | italic | oblique	any element that contains text
font-weight	normal | bold	any element that contains text
background-color	#RRGGBB (Red, Green, Blue hex values)	any element with a background
background-image	url("[image url]")	mostly with body
background-repeat	repeat | repeat-x | repeat-y | no-repeat	mostly with body
background-position	left | center | right | top | center | bottom	mostly with body
background-size	cover | fit |	

colors

look & feel, schema, eye catching

Hue is a degree on the color wheel from 0 to 360. 0 is red, 120 is green, and 240 is blue. Saturation is a percentage value, 0% means a shade of gray, and 100% is the full color.

Color models

The RGB color model

The color of **lights**, combines **Red**, **Green** and **Blue**, mainly used for screens and used in PowerPoint.

The CMYK color model

The color of **pigment, paints and inks**, combines **Cyan**, **Magneta**, **Yellow** and **Black**, used for print.

The HSL color model

A subset of the RGB model, expresses colors in terms of **hue**, **saturation** and **luminosity**, used in PowerPoint.

The HEX color model

An extension of the RGB model using **hexadecimal numbers** to define colors for HTML code.

HUE

The **pure** color.

VALUE

The **lightness** (added white) or **darkness** (added black) of a hue.

SATURATION

The **intensity** of a hue (also called chroma).

hue, saturation, brightness

Colors in CSS

- Names
- Hexadecimal
- RGB and RGBA
- HSL and HSLA

Color Name	Hex Color Code	RGB Color Code	HSL Color code	CMYK
Black	#CF0000	rgb(0, 0, 0)	hsl(0, 0%, 100%);	-
Red	#FF0000	rgb(255, 0, 0)	hsl(0, 100%, 50%);	
Maroon	#800000	rgb(128, 0, 0)	hsl(0, 100%, 25%);	
Yellow	#FFFF00	rgb(255, 255, 0)	hsl(50, 100%, 50%);	

black #000000	aliceblue #f0f8ff	darkcyan #008b8b	lightyellow #ffffe0	coral #ff7f50
dimgray #696969	lavender #e6e6fa	teal #008080	lightgoldenrodyellow #fafad2	tomato #ff6347
gray #808080	lightsteelblue #b0c4de	darkslategray #2f4f4f	lemonchiffon #fffacd	orangered #ff4500
darkgray #a9a9a9	lightslategray #778899	darkgreen #006400	wheat #f5deb3	red #ff0000
silver #c0c0c0	slategray #708090	green #008000	burlywood #deb887	crimson #dc143c
lightgrey #d3d3d3	steelblue #4682b4	forestgreen #228b22	tan #d2b48c	mediumvioletred #c71585
gainsboro #dcdcdc	royalblue #4169e1	seagreen #2e8b57	khaki #f0e68c	deeppink #ff1493
whitesmoke #f5f5f5	midnightblue #191970	mediumseagreen #3cb371	yellow #ffff00	hotpink #ff69b4
white #ffffff	navy #000080	mediumaquamarine #66cdaa	gold #ffd700	palevioletred #db7093
snow #fffafa	darkblue #00008b	darkseagreen #8fbc8f	orange #ffa500	pink #ffc0cb
ghostwhite #f8f8ff	mediumblue #0000cd	aquamarine #7fffd4	sandybrown #f4a460	lightpink #ffb6c1
floralwhite #fffaf0	blue #0000ff	palegreen #98fb98	darkorange #ff8c00	thistle #d8bfd8
linen #faf0e6	dodgerblue #1e90ff	lightgreen #90ee90	goldenrod #daa520	magenta #ff00ff
antiquewhite #faebd7	cornflowerblue #6495ed	springgreen #00ff7f	peru #cd853f	fuchsia #ff00ff
papayawhip #ffefd5	deepskyblue #00bfff	mediumspringgreen #00fa9a	darkgoldenrod #b8860b	violet #ee82ee

There are 140 safe color names!

CSS Units

Units

Measure your distance, width, height....

- In the 3D world, we do have x, y and z coordinates, distances, lengths, etc.
- We do need units to define uniformly those measures.
- CSS is offering two types of units
  - absolute units
  - relative units

Absolute units

exactly the value

Absolute units are fixed and the defined value is measured the same on screens and devices (almost).

Recommended for print layouts.

- mm
- cm
- in (inches, 96px = 2.54cm)
- px (pixel, 1/96 of 1in)
- pt (points, 1/72 of 1 in)
- pc (picas, 12pt)

Relative units

The values are adjusted to another reference point. It can scale better in the screen.

Unit	Description
em	Relative to the font-size of the element (2em means 2 times the size of the current font)
ex	Relative to the x-height of the current font (rarely used)
ch	Relative to width of the "0" (zero)
rem	Relative to font-size of the root element
vw	Relative to 1% of the width of the viewport*
vh	Relative to 1% of the height of the viewport*
vmin	Relative to 1% of viewport's* smaller dimension
vmax	Relative to 1% of viewport's* larger dimension
%	Relative to the parent element

Additional Resources

- https://developer.mozilla.org/en-US/docs/Web/CSS/Reference?retiredLocale=tr

- https://www.w3schools.com/cssref/

- https://www.youtube.com/watch?v=Qf-wVa9y9V4

Questions?