

CSS Box Model: Padding (inside the border)	span { padding: 4px; border: 12px solid green; background: beige; }	span { padding: 16px; border: 12px solid green; background: beige; }
Margin (outside the border)	span { margin-right: 4px; border: 16px solid green; background: beige; }	span { margin-right: 4px; border: 6px solid green; background: beige; }
CSS Colors	140 standard names – named colors Developers shouldn't use named colors – they generally want to generate from code <ul style="list-style-type: none"> • RGB (0-255 per color) & Alpha Transparency <ul style="list-style-type: none"> ◦ rgb(155, 138, 73) ◦ rgba(155, 138, 73, 0.6) • Hex String (00-FF per color) <ul style="list-style-type: none"> ◦ #C55 or #FCA9 ◦ 9B8A49 or #9B8A493F • HSL <ul style="list-style-type: none"> ◦ Hsl(20, 85%, 30%) or hsla(20, 85%, 35%, 0.7) ◦ Hue angles: 0=red, 120=green, 240=blue, 360=red ◦ Saturation: 0%=gray, 100%=color is fully saturated ◦ Luminance 0%=black, 100%=white ◦ <i>Benefit: easy to generate shades of a particular color (in code)</i> 	
HTML attributes referenced for styling	Attribute	Associated Style Block
	<xyz id="ticket">some content<\xy>	#ticket { padding-left: 2em; }
	<xyz class="weekend">some content<\xyz>	.weekend { border: 2px solid brown; }
	<xyz anyattr="somevalue">some content<\xyz>	[anyattr] { background-color: white } [anyattr] { font-weight: bold; }
Font Size: 1em	<ul style="list-style-type: none"> • 1em: the width of the uppercase M in the current font (traditional interpretation) • 1em: the width of the current font (modern typography interpretation) 	

	<ul style="list-style-type: none"> • 1 em: relative to the nearest parent's font • 1 rem: relative to the root font <p>Use "em" for setting spacing around your text</p>	
Being selective/(more) specific	<ul style="list-style-type: none"> • The company will hire <ul style="list-style-type: none"> ○ A student ○ A GVSU student ○ A GVSU student graduated before 2016 ○ A GVSU student graduated before 2016 with GPA at least 3.2 ○ A GVSU marketing student graduated before 2016 with GPA at least 3.2 ○ Etc 	
CSS Selectors	<ul style="list-style-type: none"> • By tag name <ul style="list-style-type: none"> ○ p{ } • By class <ul style="list-style-type: none"> ○ .active{ } • By attribute <ul style="list-style-type: none"> ○ [width]{ } • By ID <ul style="list-style-type: none"> ○ #sidebar{ } 	<ul style="list-style-type: none"> • The 3-property rule applies to any paragraph • The 1-property rule applies to any elements with class "active" • The 1-property rule applies to any elements that include the attribute "width" • The 2-property rule applies to only one element with id "sidebar"
CSS "selectors"/"filters"	<ul style="list-style-type: none"> • Various options to selection portions of the DOM tree Select by: <ul style="list-style-type: none"> ○ ID, tag name, CSS class (or combination of them) ○ Attribute (with or without its value) ○ Parent/Child relationship in the DOM tree, such as <ul style="list-style-type: none"> ▪ All immediate children of _ ▪ Any descendants of _ ▪ The last grandchild of _ ▪ And so on . . . ○ Sibling relationship in the DOM tree ○ <i>Permutations of all the above selectors</i> 	
Selector Permutations: tag & class	<pre>/* in CSS */ li.fruit{ color: red }</pre> <p><!--in HTML → </p>	<p>Applies only to list items with class .fruit</p> <pre>Blueberry </pre>

	<pre> <li class="fruit">Strawberry <li class="device">RaspBerry Pi </pre>	
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-> ID

. -> class name

[] -> attributes

Descendant/Younger Sibling Selectors

Types	Selector	Apply Rules to
Immediate children	div > p { ...rules... }	paragraphs which are an immediate child of div
Any descendant	div p { ...rules... }	paragraphs which are a descendant of a div (immediate children included)
Immediate (younger) sibling	div + p { ...rules... }	one paragraph (immediate younger sibling of a div)
Any younger sibling	div ~ p { ...rules... }	paragraphs which are younger siblings of a div (immediate siblings included)

Target Element in *Complex Selectors*

Selector	Target Element
div p	Rightmost
h2 > p table	
h2 ~ p table	

Chain of descendant/siblings

- When the selector has multiple “groups” of patterns, the CSS rules apply to the rightmost group

Selector Modifiers: pseudo-classes

- Links (:link, :visited, :hover, :active)
- Input (:checked, :disabled, :enabled, :focus, :in-range, :out-of-range, :invalid, :valid, :optional, :required, :read-only, :read-write)
- Child order
- Of-type order

:first-child vs. :first-of-type

- The first “daughter” in a family may be the third “child”
 - div p:first-of-type
 - div h1:first-child