HTML/CSS/JavaScript

Computer science club

By Marco Gao

Languages use to make Website

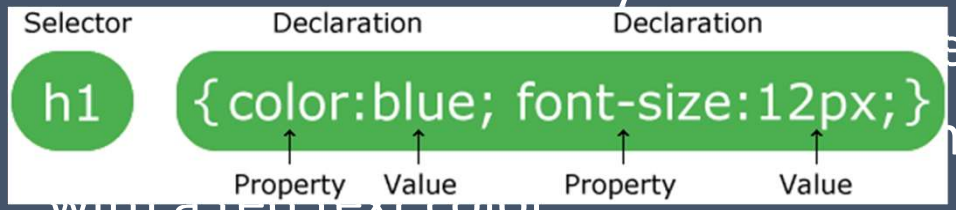
- Html
- Css
- JavaScript
- PHP
- Java Web
- Oracle
- Sql

What is css

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files.
- CSS is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.

Syntax

- CSS rule-set consists of a selector and a declaration block:
- CSS selector
- The selector points to the HTML element you want to style.
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.
- A CSS declaration always ends with a semicolon, and declaration



es.

ments will be center-aligned,

with a red text color.

CSS Selectors

- CSS selectors are used to "find" (or select) HTML elements based on their element name, id, class, attribute, and more.

The element Selector

- The element selector selects elements based on the element name.
- You can select all <p> elements on a page like this (in this case, all <p> elements will be center-aligned, with a red text color):

The id Selector

- The id selector uses the id attribute of an HTML element to select a specific element.
- The id of an element should be unique within a page, so the id selector is used to select one unique element!
- To select an element with a specific id, write a hash (#) character, followed by the id of the element.
- The style rule below will be applied to the HTML element with id="para1":

The class Selector

- The class selector selects elements with a specific class attribute.
- To select elements with a specific class, write a period (.) character, followed by the name of the class.
- You could give an element more than one class, you should insert an space between than to defined them.
- Notice: A class name cannot start with a number!

Grouping Selectors

- If you have elements with the same style definitions, it will be better to group the selectors, to minimize the code. To group selectors, separate each selector with a comma.

CSS Comments

- Comments are used to explain the code, and may help when you edit the source code at a later date.
- Comments are ignored by browsers.
- A CSS comment starts with /* and ends with */. Comments can also span multiple lines.

How to insert CSS

- Three Ways to Insert CSS
- There are three ways of inserting a style sheet:
- External style sheet
- Internal style sheet
- Inline style

External Style Sheet

- With an external style sheet, you can change the look of an entire website by changing just one file!
- Each page must include a reference to the external style sheet file inside the <link> element. The <link> element goes inside the <head> section.

Internal Style Sheet

- Internal Style Sheet
- An internal style sheet may be used if one single page has a unique style.
- Internal styles are defined within the <style> element, inside the <head> section of an HTML page.

Inline Styles

- An inline style may be used to apply a unique style for a single element.
- To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

Multiple Style Sheets

- If some properties have been defined for the same selector (element) in different style sheets, the value from the last read style sheet will be used.

Cascading Order

- What style will be used when there is more than one style specified for an HTML element?
- All the styles in a page will "cascade" into a new "virtual" style sheet by the following rules, where number one has the highest priority:
- Inline style (inside an HTML element)
- External and internal style sheets (in the head section)
- Browser default
- So, an inline style has the highest priority, and will override external and internal styles and browser defaults.

CSS Colors

- Colors are specified using predefined color names, or RGB, HEX, HSL, RGBA, HSLA values.

Background Color

- background-color: black;

Text Color

- color: black;

Border Color

- border 1px solid black;

Color Values

- In HTML, colors can also be specified using RGB values, HEX values, HSL values, RGBA values, and HSLA values:
- Same as color name "Tomato":
- **rgb(255, 99, 71)**
- **#ff6347**
- **hsl(9, 100%, 64%)**

RGB Value

- In HTML, a color can be specified as an RGB value, using this formula:
- **rgb(*red, green, blue*)**
- Each parameter (red, green, and blue) defines the intensity of the color between 0 and 255.
- For example, rgb(255, 0, 0) is displayed as red, because red is set to its highest value (255) and the others are set to 0.
- To display the color black, all color parameters must be set to 0, like this: rgb(0, 0, 0).
- To display the color white, all color parameters must be set to 255, like this: rgb(255, 255, 255).

HEX Value

- In HTML, a color can be specified using a hexadecimal value in the form:
- ***#rrggbb***
- Where rr (red), gg (green) and bb (blue) are hexadecimal values between 00 and ff (same as decimal 0-255).
- For example, #ff0000 is displayed as red, because red is set to its highest value (ff) and the others are set to the lowest value (00).

HSL Value

- In HTML, a color can be specified using hue, saturation, and lightness (HSL) in the form:
- **hsl(*hue*, *saturation*, *lightness*)**
- 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.
- Lightness is also a percentage, 0% is black, 50% is neither light or dark, 100% is white

Saturation

- Saturation can be described as the intensity of a color.
- 100% is pure color, no shades of gray
- 50% is 50% gray, but you can still see the color.
- 0% is completely gray, you can no longer see the color.

Lightness

- The lightness of a color can be described as how much light you want to give the color, where 0% means no light (black), 50% means 50% light (neither dark nor light) 100% means full lightness (white).
- Shades of gray are often defined by setting the hue and saturation to 0, and adjust the lightness from 0% to 100% to get darker/lighter shades:

RGBA Value

- RGBA color values are an extension of RGB color values with an alpha channel - which specifies the opacity for a color.
- An RGBA color value is specified with:
- **rgba(*red, green, blue, alpha*)**
- The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (not transparent at all):

HSLA Value

- HSLA color values are an extension of HSL color values with an alpha channel - which specifies the opacity for a color.
- An HSLA color value is specified with:
- **hsla(*hue, saturation, lightness, alpha*)**
- The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (not transparent at all).

CSS Backgrounds

- The CSS background properties are used to define the background effects for elements.

Background Color

- The background-color property specifies the background color of an element.
- background-color: black;

Background Image

- The background-image property specifies an image to use as the background of an element.
- By default, the image is repeated so it covers the entire element.
- background-image: url("paper.gif");
- url: location of file.

Background Image - Repeat Horizontally, Vertically or no repeat

- By default, the background-image property repeats an image both horizontally and vertically.
- Some images should be repeated only horizontally or vertically, or they will look strange.
- If the image above is repeated only horizontally (background-repeat: repeat-x;), the background will look better.
- background-repeat: repeat-x;
- background-repeat: repeat-y;
- background-repeat: no-repeat.

Background Image - Set position

- Showing the background image only once is also specified by the background-repeat property. The background image is shown in the same place as the text. We want to change the position of the image, so that it does not disturb the text too much.
- The position of the image is specified by the background-position property
- background-position: right top;

Background Image - Fixed position

- To specify that the background image should be fixed (will not scroll with the rest of the page), use the background-attachment property:
- background-attachment: fixed;

Background - Shorthand property

- To shorten the code, it is also possible to specify all the background properties in one single property. This is called a shorthand property.
- background: #ffffff url("img_tree.png") no-repeat right top;

- When using the shorthand property the order of the property values is:
- background-color
- background-image
- background-repeat
- background-attachment
- background-position

All CSS Background Properties

Property	Description
background	Sets all the background properties in one declaration
background-attachment	Sets whether a background image is fixed or scrolls with the rest of the page
background-clip	Specifies the painting area of the background
background-color	Sets the background color of an element
background-image	Sets the background image for an element
background-origin	Specifies where the background image(s) is/are positioned
background-position	Sets the starting position of a background image
background-repeat	Sets how a background image will be repeated
background-size	Specifies the size of the background image(s)

CSS Borders

- The CSS border properties allow you to specify the style, width, and color of an element's border.

Border Style

- The border-style property specifies what kind of border to display.
- The following values are allowed:
- dotted - Defines a dotted border
- dashed - Defines a dashed border
- solid - Defines a solid border
- double - Defines a double border
- groove - Defines a 3D grooved border. The effect depends on the border-color value
- ridge - Defines a 3D ridged border. The effect depends on the border-color value
- inset - Defines a 3D inset border. The effect depends on the border-color value
- outset - Defines a 3D outset border. The effect depends on the border-color value
- none - Defines no border
- hidden - Defines a hidden border

Border Width

- The border-width property specifies the width of the four borders.
- The width can be set as a specific size (in px, pt, cm, em, etc) or by using one of the three pre-defined values: thin, medium, or thick.
- The border-width property can have from one to four values (for the top border, right border, bottom border, and the left border).

Border Color

- The border-color property is used to set the color of the four borders.
- The border-color property can have from one to four values (for the top border, right border, bottom border, and the left border).
- If border-color is not set, it inherits the color of the element.

Border - Individual Sides

- From the examples above you have seen that it is possible to specify a different border for each side.
- In CSS, there are also properties for specifying each of the borders (top, right, bottom, and left):

Border-style

If the border-style property has four values:

border-style: dotted solid double dashed;
top border is dotted
right border is solid
bottom border is double
left border is dashed

If the border-style property has three values:

border-style: dotted solid double;
top border is dotted
right and left borders are solid
bottom border is double

If the border-style property has two values:

border-style: dotted solid;
top and bottom borders are dotted
right and left borders are solid

If the border-style property has one value:

border-style: dotted;
all four borders are dotted

The border-style property is used in the example above.
However, it also works with border-width and border-color.

Border - Shorthand Property

- As you can see from the examples above, there are many properties to consider when dealing with borders.
- To shorten the code, it is also possible to specify all the individual border properties in one property.
- The border property is a shorthand property for the following individual border properties:
- border-width
- border-style (required)
- border-color

- border: 5px solid red;

Rounded Borders

- The border-radius property is used to add rounded borders to an element:
- border-radius: 5px;

All CSS Border Properties

Property	Description
Border	Sets all the border properties in one declaration
border-bottom	Sets all the bottom border properties in one declaration
border-bottom-color	Sets the color of the bottom border
border-bottom-style	Sets the style of the bottom border
border-bottom-width	Sets the width of the bottom border
border-color	Sets the color of the four borders
border-left	Sets all the left border properties in one declaration
border-left-color	Sets the color of the left border
border-left-style	Sets the style of the left border
border-left-width	Sets the width of the left border
border-radius	Sets all the four border-*-radius properties for rounded corners
border-right	Sets all the right border properties in one declaration
border-right-color	Sets the color of the right border
border-right-style	Sets the style of the right border
border-right-width	Sets the width of the right border

All CSS Border Properties

border-style	Sets the style of the four borders
border-top	Sets all the top border properties in one declaration
border-top-color	Sets the color of the top border
border-top-style	Sets the style of the top border
border-top-width	Sets the width of the top border
border-width	Sets the width of the four borders

CSS Margins

- The CSS margin properties are used to create space around elements, outside of any defined borders.
- With CSS, you have full control over the margins. There are properties for setting the margin for each side of an element (top, right, bottom, and left).

Margin - Individual Sides

- CSS has properties for specifying the margin for each side of an element:

- margin-top
- margin-right
- margin-bottom
- margin-left
- All the margin properties can have the following values:

- auto - the browser calculates the margin
- length - specifies a margin in px, pt, cm, etc.
- % - specifies a margin in % of the width of the containing element
- inherit - specifies that the margin should be inherited from the parent element
- Tip: Negative values are allowed.

Margin - Shorthand Property

- To shorten the code, it is possible to specify all the margin properties in one property.
- The margin property is a shorthand property for the following individual margin properties:

- margin-top
- margin-right
- margin-bottom
- margin-left

Margin - Shorthand Property

If the margin property has four values:

margin: 25px 50px 75px 100px;
top margin is 25px
right margin is 50px
bottom margin is 75px
left margin is 100px

If the margin property has three values:

margin: 25px 50px 75px;
top margin is 25px
right and left margins are 50px
bottom margin is 75px

If the margin property has two values:

margin: 25px 50px;
top and bottom margins are 25px
right and left margins are 50px

If the margin property has one value:

margin: 25px;
all four margins are 25px

The auto Value

- You can set the margin property to auto to horizontally center the element within its container.

- The element will then take up the specified width, and the remaining space will be split equally between the left and right margins:

All CSS Margin Properties

Property	Description
margin	A shorthand property for setting the margin properties in one declaration
margin-bottom	Sets the bottom margin of an element
margin-left	Sets the left margin of an element
margin-right	Sets the right margin of an element
margin-top	Sets the top margin of an element

CSS Padding

- The CSS padding properties are used to generate space around an element's content, inside of any defined borders.

- With CSS, you have full control over the padding. There are properties for setting the padding for each side of an element (top, right, bottom, and left).

Padding - Individual Sides

- padding-top
- padding-right
- padding-bottom
- padding-left
- All the padding properties can have the following values:

- length - specifies a padding in px, pt, cm, etc.
- % - specifies a padding in % of the width of the containing element
- inherit - specifies that the padding should be inherited from the parent element
- Note: Negative values are not allowed.

Padding - Shorthand Property

- To shorten the code, it is possible to specify all the padding properties in one property.

- The padding property is a shorthand property for the following individual padding properties:

- padding-top
- padding-right
- padding-bottom
- padding-left

Padding - Shorthand Property

If the padding property has four values:

padding: 25px 50px 75px 100px;
top padding is 25px
right padding is 50px
bottom padding is 75px
left padding is 100px

If the padding property has three values:

padding: 25px 50px 75px;
top padding is 25px
right and left paddings are 50px
bottom padding is 75px

If the padding property has two values:

padding: 25px 50px;
top and bottom paddings are 25px
right and left paddings are 50px

If the padding property has one value:

padding: 25px;
all four paddings are 25px

All CSS Padding Properties

padding	A shorthand property for setting all the padding properties in one declaration
padding-bottom	Sets the bottom padding of an element
padding-left	Sets the left padding of an element
padding-right	Sets the right padding of an element
padding-top	Sets the top padding of an element

CSS Height and Width

- The height and width properties are used to set the height and width of an element.

- The height and width can be set to auto (this is default. Means that the browser calculates the height and width), or be specified in length values, like px, cm, etc., or in percent (%) of the containing block.
- The height and width properties do not include padding, borders, or margins; they set the height/width of the area inside the padding, border, and margin of the element!

All CSS Dimension Properties

Property	Description
height	Sets the height of an element
max-height	Sets the maximum height of an element
max-width	Sets the maximum width of an element
min-height	Sets the minimum height of an element
min-width	Sets the minimum width of an element
width	Sets the width of an element

CSS Text

- Set style for text in HTML document

Text Color

- The default text color for a page is defined in the body selector.
- Note: For W3C compliant CSS: If you define the color property, you must also define the background-color.

Text Alignment

- The text-align property is used to set the horizontal alignment of a text.
- A text can be left or right aligned, centered, or justified.
- The following example shows center aligned, and left and right aligned text (left alignment is default if text direction is left-to-right, and right alignment is default if text direction is right-to-left):

Text Decoration

- The text-decoration property is used to set or remove decorations from text.
- The value text-decoration: none; is often used to remove underlines from links:
- The other text-decoration values are used to decorate text:
- text-decoration: overline;
- text-decoration: line-through;
- text-decoration: underline;

Text Transformation

- The text-transform property is used to specify uppercase and lowercase letters in a text.

- It can be used to turn everything into uppercase or lowercase letters, or capitalize the first letter of each word.
- text-transform: uppercase;
- text-transform: lowercase;
- text-transform: capitalize;

Line Height

- The line-height property is used to specify the space between lines:

Word Spacing

- The word-spacing property is used to specify the space between the words in a text.
- The following example demonstrates how to increase or decrease the space between words:

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 overridden to support multiple 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

CSS Fonts

- The CSS font properties define the font family, boldness, size, and the style of a text.

CSS Font Families

- In CSS, there are two types of font family names:
- **generic family** - a group of font families with a similar look (like "Serif" or "Monospace")
- **font family** - a specific font family (like "Times New Roman" or "Arial")
- **Note:** On computer screens, sans-serif fonts are considered easier to read than serif fonts.

Font Family

- The font family of a text is set with the font-family property.
- The font-family property should hold several font names as a "fallback" system. If the browser does not support the first font, it tries the next font, and so on.
- Start with the font you want, and end with a generic family, to let the browser pick a similar font in the generic family, if no other fonts are available.
- Note: If the name of a font family is more than one word, it must be in quotation marks, like: "Times New Roman".
- More than one font family is specified in a comma-separated list:

Font Size

- The font-size property sets the size of the text.
- Being able to manage the text size is important in web design. However, you should not use font size adjustments to make paragraphs look like headings, or headings look like paragraphs.
- Always use the proper HTML tags, like <h1> - <h6> for headings and <p> for paragraphs.
- The font-size value can be an absolute, or relative size.
- Absolute size:
- Sets the text to a specified size
- Does not allow a user to change the text size in all browsers (bad for accessibility reasons)
- Absolute size is useful when the physical size of the output is known
- Relative size:
- Sets the size relative to surrounding elements
- Allows a user to change the text size in browsers
- Note: If you do not specify a font size, the default size for normal text, like paragraphs, is 16px (16px=1em).

All CSS Font Properties

Property	Description
font	Sets all the font properties in one declaration
font-family	Specifies the font family for text
font-size	Specifies the font size of text
font-style	Specifies the font style for text
font-variant	Specifies whether or not a text should be displayed in a small-caps font
font-weight	Specifies the weight of a font

CSS Lists

- In HTML, there are two main types of lists:
- unordered lists (<ul>) - the list items are marked with bullets
- ordered lists (<ol>) - the list items are marked with numbers or letters
- The CSS list properties allow you to:
- Set different list item markers for ordered lists
- Set different list item markers for unordered lists
- Set an image as the list item marker
- Add background colors to lists and list items

Different List Item Markers

- The list-style-type property specifies the type of list item marker.
- The following example shows some of the available list item markers:
- list-style-type: circle;
- list-style-type: square;
- list-style-type: upper-roman;
- list-style-type: lower-alpha;

Position The List Item Markers

- The list-style-position property specifies the position of the list-item markers (bullet points).

- "list-style-position: outside;" means that the bullet points will be outside the list item. The start of each line of a list item will be aligned vertically.
- "list-style-position: inside;" means that the bullet points will be inside the list item. As it is part of the list item, it will be part of the text and push the text at the start.

Remove Default Settings

- The list-style-type:none property can also be used to remove the markers/bullets. Note that the list also has default margin and padding. To remove this, add margin:0 and padding:0 to <ul> or <ol>:

List - Shorthand property

- The list-style property is a shorthand property. It is used to set all the list properties in one declaration:
- list-style: square inside url("sqpurple.gif");
- When using the shorthand property, the order of the property values are:

- list-style-type (if a list-style-image is specified, the value of this property will be displayed if the image for some reason cannot be displayed)
- list-style-position (specifies whether the list-item markers should appear inside or outside the content flow)
- list-style-image (specifies an image as the list item marker)
- If one of the property values above are missing, the default value for the missing property will be inserted, if any.

Styling List With Colors

- We can also style lists with colors, to make them look a little more interesting.
- Anything added to the <ol> or <ul> tag, affects the entire list, while properties added to the <li> tag will affect the individual list items:

All CSS List Properties

Property	Description
list-style	Sets all the properties for a list in one declaration
list-style-image	Specifies an image as the list-item marker
list-style-position	Specifies the position of the list-item markers (bullet points)
list-style-type	Specifies the type of list-item marker

CSS Tables

The style of table include border, height, weight, text-align, etc.

Table Borders

- To specify table borders in CSS, use the border property.

- If you only want a border around the table, only specify the border property for <table>:

Collapse Table Borders

- The border-collapse property sets whether the table borders should be collapsed into a single border:
- border-collapse: collapse;

Horizontal Alignment

- The text-align property sets the horizontal alignment (like left, right, or center) of the content in <th> or <td>.

- By default, the content of <th> elements are center-aligned and the content of <td> elements are left-aligned.

Vertical Alignment

- he vertical-align property sets the vertical alignment (like top, bottom, or middle) of the content in <th> or <td>.

- By default, the vertical alignment of the content in a table is middle (for both <th> and <td> elements).

CSS Table Properties

Property	Description
border	Sets all the border properties in one declaration
border-collapse	Specifies whether or not table borders should be collapsed
border-spacing	Specifies the distance between the borders of adjacent cells
caption-side	Specifies the placement of a table caption
empty-cells	Specifies whether or not to display borders and background on empty cells in a table
table-layout	Sets the layout algorithm to be used for a table

CSS Layout - The display Property

- The display property is the most important CSS property for controlling layout.

The display Property

- The display property specifies if/how an element is displayed.

- Every HTML element has a default display value depending on what type of element it is. The default display value for most elements is block or inline.
- display: block;
- display: inline-block;

Block-level Elements

- A block-level element always starts on a new line and takes up the full width available (stretches out to the left and right as far as it can).
- Examples of block-level elements:
-
- <h1> - <h6>
- <p>
- <form>
- <header>
- <footer>
- <section>

Inline Elements

- An inline element does not start on a new line and only takes up as much width as necessary.
- This is an inline element inside a paragraph.
- Examples of inline elements:
-
- <a>
- <img>

Display: none

- display: none; is commonly used with JavaScript to hide and show elements without deleting and recreating them. Take a look at our last example on this page if you want to know how this can be achieved.

- The <script> element uses display: none; as default.

display: inline-block

- Compared to display: inline, the major difference is that display: inline-block allows to set a width and height on the element.

- Also, with display: inline-block, the top and bottom margins/paddings are respected, but with display: inline they are not.

- Compared to display: block, the major difference is that display: inline-block does not add a line-break after the element, so the element can sit next to other elements.

Override The Default Display Value

- As mentioned, every element has a default display value. However, you can override this.

- Changing an inline element to a block element, or vice versa, can be useful for making the page look a specific way, and still follow the web standards.
- display: inline-block;
- display: block;
- display: none;

- Note: Setting the display property of an element only changes how the element is displayed, NOT what kind of element it is. So, an inline element with display: block; is not allowed to have other block elements inside it.

CSS Display/Visibility Properties

Property	Description
display	Specifies how an element should be displayed
visibility	Specifies whether or not an element should be visible

CSS Layout - The position Property

- The position property specifies the type of positioning method used for an element (static, relative, fixed, absolute or sticky).

The position Property

- The position property specifies the type of positioning method used for an element.
- There are five different position values:
- static
- relative
- fixed
- absolute
- sticky
- Elements are then positioned using the top, bottom, left, and right properties. However, these properties will not work unless the position property is set first. They also work differently depending on the position value.

position: static;

- HTML elements are positioned static by default.
- Static positioned elements are not affected by the top, bottom, left, and right properties.
- An element with position: static; is not positioned in any special way; it is always positioned according to the normal flow of the page:

position: relative;

- An element with position: relative; is positioned relative to its normal position.

- Setting the top, right, bottom, and left properties of a relatively-positioned element will cause it to be adjusted away from its normal position. Other content will not be adjusted to fit into any gap left by the element.

position: fixed;

- An element with position: fixed; is positioned relative to the viewport, which means it always stays in the same place even if the page is scrolled. The top, right, bottom, and left properties are used to position the element.

- A fixed element does not leave a gap in the page where it would normally have been located.

- Notice the fixed element in the lower-right corner of the page.

position: absolute;

- An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed).

- However; if an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.

- Note: A "positioned" element is one whose position is anything except static.

Overlapping Elements

- When elements are positioned, they can overlap other elements.
- The z-index property specifies the stack order of an element (which element should be placed in front of, or behind, the others).
- An element can have a positive or negative stack order:
- An element with greater stack order is always in front of an element with a lower stack order.
- Note: If two positioned elements overlap without a z-index specified, the element positioned last in the HTML code will be shown on top.

All CSS Positioning Properties

Property	Description
bottom	Sets the bottom margin edge for a positioned box
clip	Clips an absolutely positioned element
left	Sets the left margin edge for a positioned box
position	Specifies the type of positioning for an element
right	Sets the right margin edge for a positioned box
top	Sets the top margin edge for a positioned box
z-index	Sets the stack order of an element

CSS Layout - float

- The CSS float property specifies how an element should float.

The float Property

- The float property is used for positioning and formatting content e.g. let an image float left to the text in a container.

- The float property can have one of the following values:

- left - The element floats to the left of its container
- right- The element floats to the right of its container
- none - The element does not float (will be displayed just where it occurs in the text). This is default
- inherit - The element inherits the float value of its parent
- In its simplest use, the float property can be used to wrap text around images.

All CSS Float Properties

Property	Description
box-sizing	Defines how the width and height of an element are calculated: should they include padding and borders, or not
clear	Specifies what elements can float beside the cleared element and on which side
float	Specifies how an element should float
overflow	Specifies what happens if content overflows an element's box
overflow-x	Specifies what to do with the left/right edges of the content if it overflows the element's content area
overflow-y	Specifies what to do with the top/bottom edges of the content if it overflows the element's content area

CSS Combinators

- A combinator is something that explains the relationship between the selectors.
- A CSS selector can contain more than one simple selector. Between the simple selectors, we can include a combinator.
- There are four different combinators in CSS:
- descendant selector (space)
- child selector (>)
- adjacent sibling selector (+)
- general sibling selector (~)

Descendant Selector

- The descendant selector matches all elements that are descendants of a specified element.
- div p {
  background-color: yellow;
  }

Child Selector

- The child selector selects all elements that are the immediate children of a specified element.
- The following example selects all <p> elements that are immediate children of a element:
- ```
  div > p {
    background-color: yellow;
  }
  ```
  ```

Adjacent Sibling Selector

- The adjacent sibling selector selects all elements that are the adjacent siblings of a specified element.
- Sibling elements must have the same parent element, and "adjacent" means "immediately following".
- The following example selects all <p> elements that are placed immediately after elements:
- ```
  div + p {
    background-color: yellow;
  }
  ```
  ```

General Sibling Selector

- The general sibling selector selects all elements that are siblings of a specified element.
- The following example selects all <p> elements that are siblings of elements:
- div ~ p {
  background-color: yellow;
  }