Client-Side Web GIS

CSS

Image from NASA: https://commons.wikimedia.org/wiki/File:Earth_Western_Hemisphere_transparent_background.png#filelinks

AmericaView
Empowering Earth Observation Education
AmericaView.org - Est. 2003

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CSS Selectors

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Where to store CSS

Inline = as an attribute in HTML tag

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
  <p style="color:crimson;font-size:24pt">Some text</p>
</body>
</html>
```

Generally not preferred

Internal = in style tags in HTML document, generally in header

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
  <style>
    p{
      color:crimson;
      font-size:24pt;
    }
  </style>
</head>
<body>
  <p>Some text</p>
</body>
</html>
```

External = in separate .css file

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet"
 type="text/css" href="css_example.css">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
  <p>Some text</p>
</body>
</html>
```

Generally preferred

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Selectors

- Used to find HTML elements based on element type, id, class, etc.

```
p{
   color:gray;
   font-size:24pt;
}

.para-style{
   color:darkgoldenrod;
   font-size:24pt;
}

#para-id{
   color:crimson;
   font-size:24pt;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css"
href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <p>Some text</p>
   <p class="para-style">Some more text</p>
   <p id="para-id">Yet more text</p>
</body>
</html>
```

Some text

Some more text

Yet more text

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Tag, Class, ID

- Element Selector = Styles can be applied to all elements of the same tag type
- Class Selector = Elements of the same class can be given the same style
- ID Selector = An id can be assigned to a specific element to assign a style to that specific element

```
p{
   color:gray;
   font-size:24pt;
}
```

```
.para-style{
   color:darkgoldenrod;
   font-size:24pt;
}
```

```
#para-id{
   color:crimson;
   font-size:24pt;
}
```

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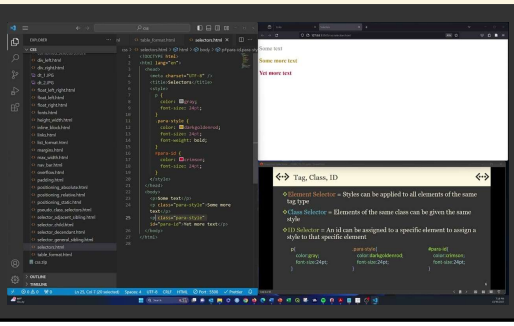
Video: Selectors



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Precedence

- id > class > element
- Inline > Internal > External
- Later selectors in an external sheet will take precedence over prior selectors if both have the same specificity
- The external sheet referenced last will take precedence over prior referenced sheets
- A CSS rule with !important always takes precedence
- This can get complicated

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When Elements have the same properties

- Can combine using commas

```
.p1, .p2, .table1, .list1{
   font-size:40px;
   color: black;
   border: solid;
}
```

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Combination Selectors

- Can combine multiple selectors to be more specific

```
.para-div p{
   color:gray;
   font-size:24pt;
}

p{
   color:crimson;
   font-size:24pt;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
  <div class="para-div">
   <p>Some text</p>
   <p>Some more text</p>
   </div>
   <p>Yet more text</p>
</body>
</html>
```

Some text

Some more text

Yet more text

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Combination Selectors

Descendant Selector = for all descendants of a specific element

```
.para-div p{
   color:gray;
   font-size:24pt;
}
```

Child Selector = for only immediate children of a specific element

```
.para-div > p{
   color:gray;
   font-size:24pt;
}
```

Adjacent Sibling Selector = for only the adjacent sibling occurring after a specific element

```
.para-div + p{
   color:gray;
   font-size:24pt;
}
```

General Sibling Selector = for all elements that are siblings of a specific element

```
.para-div ~ p{
   color:gray;
   font-size:24pt;
}
```

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Pseudo-Class Selectors

- Defines special state of an element
  - Style an element when user mouses over it
  - Style visited and unvisited links differently
  - Style an element when it gets focus

```
p{
   color:gray;
   font-size:24pt;
}

p:hover{
   color:crimson;
   font-size:24pt;
}
```

Some text

Some more text

Yet more text

Some text

Some more text

Yet more text

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Example Pseudo-Class Selectors

Selector	Description
:active	Selects the active link
:focus	Selects element that has focus
:hover	Selects links on mouse over
:link	Selects all unvisited links
:invalid	Selects elements with an invalid value
:valid	Selects elements with a valid value
:visisted	Selects all visited links

https://www.w3schools.com/css/css_pseudo_classes.asp

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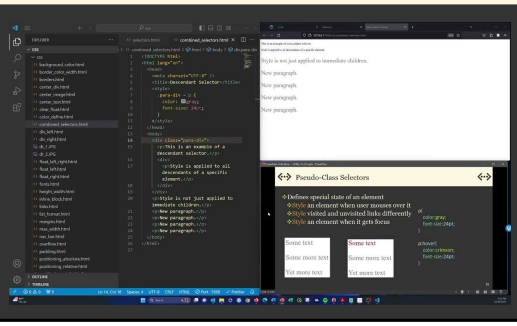
Video: Additional Selectors



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CSS Comments

```
p{
   color:gray;
   /*This is a comment*/
   font-size:24pt;
}

/*
This is
another
comment
*/
```

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Working With Colors

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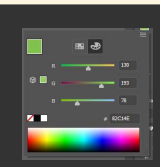
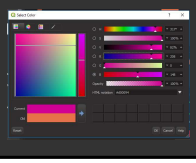
RGB



Example from Adobe Illustrator

Example from ArcGIS Pro



Example from QGIS

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Hex Codes

Integer	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Hexadecimal	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

#ff0000

(15 * 16) + 15 = 255

(0 * 16) + 0 = 0

(0 * 16) + 0 = 0

(255, 0, 0) = Red

#ffff00

(15 * 16) + 15 = 255

(15 * 16) + 15 = 255

(0 * 16) + 0 = 0

(250, 0, 0) = Yellow

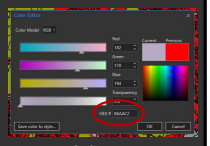
#B6AAC2

(11 * 16) + 6 = 182

(10 * 16) + 10 = 170

(12 * 16) + 2 = 194

(182, 170, 194)



Example from ArcGIS Pro

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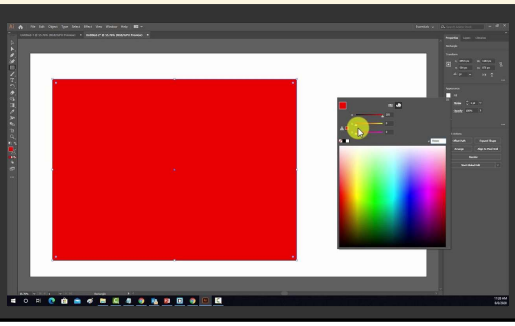
Video: 8-bit RGB Hex Codes



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RGBA

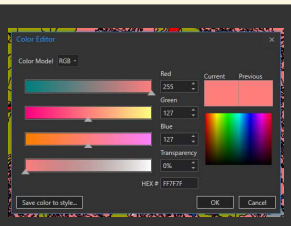
R = Red (0-255)

G = Green (0-255)

B = Blue (0-255)

A = Alpha (0-1 or 0 to 100%)

A controls transparency/opacity



Example from ArcGIS Pro

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Hue, Saturation, Lightness

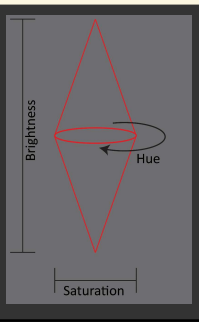
Hue ~ base color

Saturation ~ dullness/color mixed with gray

Lightness ~ intensity, lightness/darkness

Example from Adobe Illustrator

Example from ArcGIS Pro



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Defining Colors in CSS

- Named colors = https://www.w3schools.com/colors/colors_names.asp
- rgb(R, G, B)
- Hex Code: #ffffff
- hsl(H, S, L)
- rgba(R, G, B, A)
- hsla(H, S, L, A)

```
body{
   background-color: rgb(55, 54, 61);
   font-family: "Tahoma";
   font-size: 14pt;
}
```

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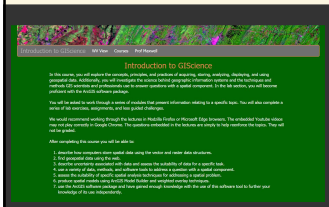
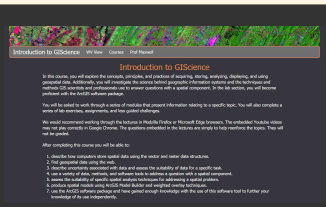
Change Background Color



```
body{
    background-color: darkgreen;
    font-family: "Tahoma";
    font-size: 14pt;
}
```



```
body{
    background-color: #373363D;
    font-family: "Tahoma";
    font-size: 14pt;
}
```

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Change Font Color

```
#title{
    color: #E3874F;
    text-align: center;
}

.para{
    color: #ffffff;
    margin-right: 50px;
    margin-left: 50px;
    margin-bottom: 25px;
    margin-top: 25px;
}
```

Introduction to GIScience

In this course, you will explore the concepts, principles, and practices of acquiring, storing, analyzing, displaying, and using geospatial data. Additionally, you will investigate the science behind geographic information systems and the techniques and methods GIS scientists and professionals use to answer questions with a spatial component. In the lab section, you will become proficient with the ArcGIS software package.

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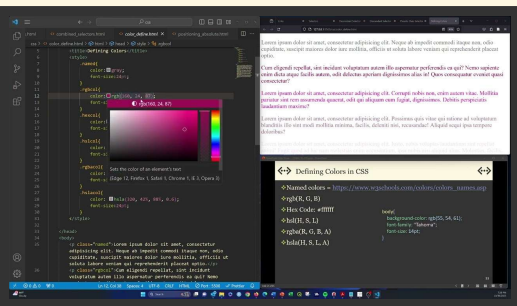
Video: Defining Colors



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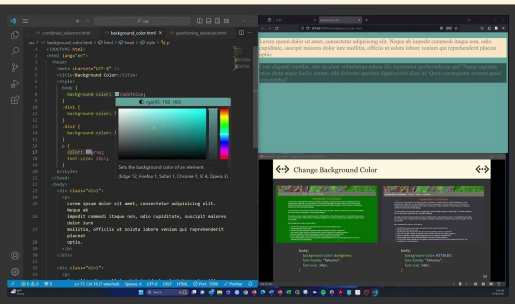
Video Colors



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Working with Type

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Type

Type Family = group of type designs that reflect common design characteristics and share a common base name (Calibri, Arial, Comic Sans, Cambria, Courier New, Times New Roman, Verdana)

Type Style = Roman (normal), bold, *italic* (Less common: condensed, expanded, light, and extra bold)

Type Face = Family + Style (Gill Sans Ultra Bold)

Type Size = height (11 pt, 14 pt, 18 pt)

Font = a set of all alphanumeric and special characters of a particular family, style, and size (Times New Roman 12 pt)

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Case

Title Case = lowercase letters with the first letter of each word set to upper case (except linking words like in, on, or, of, per, by, for, with, the, and, over, etc.)

Sentence case = Only first letter of first word in the sentence is capitalized

UPPERCASE = All caps

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Serif vs. Sans Serif

Serif = has short extensions at the end of major letter strokes (This is a serif font).

Sans serif = does not have serifs (This is a sans serif font).

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Spacing

Letter Spacing = space between letters in a word

Here I have changed the letter spacing.

Word Spacing = spacing between words

Kerning = variation of spacing between adjacent letters

Leading = vertical spacing between lines

Here I have changed the leading.
Here I have changed the leading.
Here I have changed the leading.
Here I have changed the leading.

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Change Font

- Can provide multiple font families as a list just in case browser does not have access to chosen font

```
p {
  font-family: "Times New Roman", Times, serif;
  font-style: italic;
  font-size: 50px;
  font-weight: bold;
  color: brown;
}
```

Some text

Some more text

Yet more text

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Change Font

Property	Description
font	Set all 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 text should be displayed in a small-caps font
font-weight	Specifies the weight of a font

https://www.w3schools.com/css/css_font.asp

1em = 12pt = 16px = 100%

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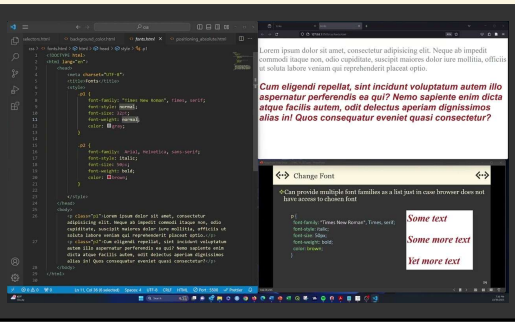
Video: Fonts



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Styling HTML Elements

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Links

```
a:link {
  color: black;
  background-color:dimgray;
}

/* mouse over link */
a:hover {
  color: red;
  background-color:dimgray;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <a href="http://maxwellae.wixsite.com/maxwell-
geospatial">Link</a>
</body>
</html>
```

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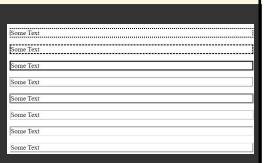
Border Style

```
.dotted{
   border-style: dotted;}
.dashed{
   border-style: dashed;}
.solid{
   border-style: solid;}
.double{
   border-style: double;}
.groove{
   border-style: groove;}
.ridge{
   border-style: ridge;}
.inset{
   border-style: inset;}
.outset{
   border-style: outset;}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet“
 type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <p class="dotted">Some Text</p>
   <p class="dashed" >Some Text</p>
   <p class="solid" >Some Text</p>
   <p class="groove" >Some Text</p>
   <p class="double">Some Text</p>
   <p class="ridge" >Some Text</p>
   <p class="inset">Some Text</p>
   <p class="outset" >Some Text</p>
</body>
</html>
```



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Border Width and Color

```
.brd-style{
   border-style: solid;
   border-width: 7px;
   border-color: red;
   background-color: gray;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <p class="brd-style" >Some Text</p>
</body>
</html>
```

Some Text

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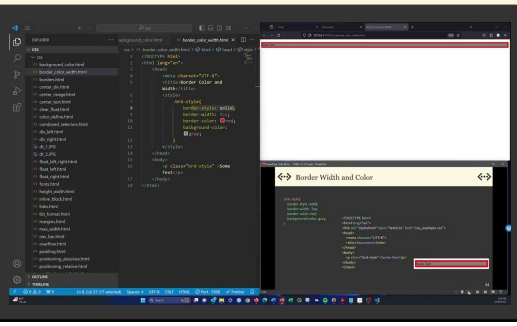
Video Links and Borders



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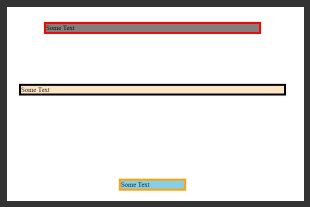
Margins

- Create space around elements, outside of any defined borders

```
.margin1{
   border-style:solid ;border-width: 5px;
   background-color: gray; border-color: red;
   margin-top: 80px; margin-bottom: 80px;
   margin-right: 120px; margin-left: 120px;}
.margin2{
   border-style:solid; border-width: 5px;
   background-color: bisque; border-color: black;
   margin-top: 120px; margin-bottom: 120px;
   margin-right: 60px; margin-left: 60px;}
.margin3{
   border-style:solid; border-width: 5px;
   background-color: skyblue; border-color: orange;
   margin-top: 200px; margin-bottom: 200px;
   margin-right: 300px; margin-left: 300px;}
```



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Padding

- Create space around an element's content, inside of any defined borders

```
.margin1{
  border-style:solid; border-width: 5px;
  background-color: gray; border-color: red;
  padding-top: 80px; padding-bottom: 80px;
  padding-right: 120px; padding-left: 120px;}
.margin2{
  border-style:solid; border-width: 5px;
  background-color: bisque; border-color: black;
  padding-top: 120px; padding-bottom: 120px;
  padding-right: 60px; padding-left: 60px;}
.margin3{
  border-style:solid; border-width: 5px;
  background-color: skyblue; border-color: orange;
  padding-top: 200px; padding-bottom: 200px;
  padding-right: 300px; padding-left: 300px}
```

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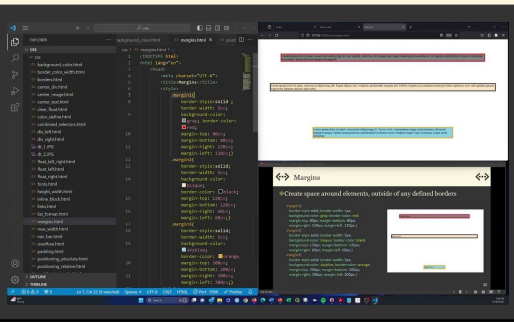
Video: Margins vs. Padding



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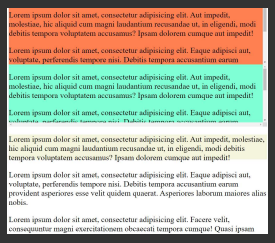
Overflow

- Specify what to do if content overflows its container

Option	Description
visible	Content renders outside of element's box (default)
hidden	Overflow content is clipped
scroll	Scrollbar added once contain overflows
auto	Adds scrollbar only when necessary



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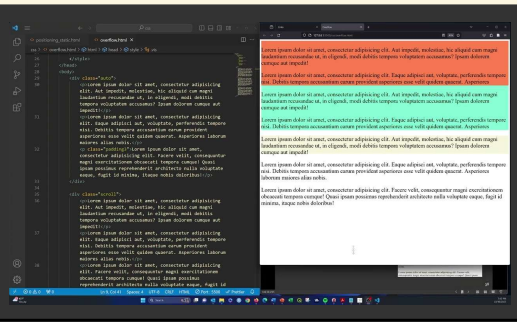
Video: Overlow



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Height and Width

- Set height and width of an element
- Default is auto (Browser calculates height and width)
- Can specify in px, length units, or % of containing block

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
 <div class="container-div">
  <p class="margin1">Some Text</p>
  <p class="margin2">Some Text</p>
  <p class="margin3">Some Text</p>
 </div>
</body>
</html>
```

```css
.container-div{
  background-color: burlywood;
  width: 500px;
  height: 200px;
}
```

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Max-Width

- Set a maximum width of an element
- Can be used to avoid browser adding scrollbar to the page

```css
.container-div{
  background-color: burlywood;
  max-width: 1200px;
  height: 200px;
}
```

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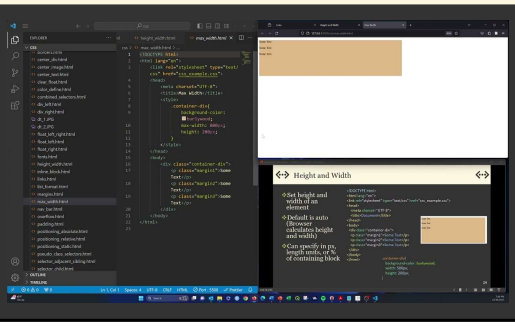
Video: Height and Width



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CSS for Positioning

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Positioning

Static = positioned according to normal flow of the page (default) and not impacted by top, right, bottom, and left properties

Relative = adjust position based on top, right, bottom, and left properties relative to its normal or static position on the page.

Fixed = stays in the same location even if the page is scrolled

Absolute = positioned relative to the nearest position ancestor

Sticky = positioned relative until a given offset is met in the view then it sticks in place (fixed)

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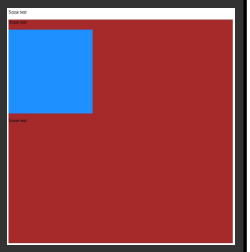
Blue and Red Div Static

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css"
href="css_example.css">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
 <p>Some text</p>
  <div class="div1">
    <p>Some text</p>
    <div class="div2">
    </div>
    <p>Some text</p>
  </div>
</body>
</html>
```

```css
.div1{
  background-color:brown;
  height:800px;
  width: 800px;
  position:static;
}

.div2{
  background-color:dodgerblue;
  width: 300px;
  height: 300px;
  position: static;
}
```



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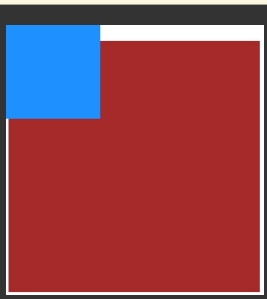
Absolute Blue and Red Div Static

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
 <p>Some text</p>
  <div class="div1">
    <p>Some text</p>
    <div class="div2">
    </div>
    <p>Some text</p>
  </div>
</body>
</html>
```

```css
.div1{
  background-color:brown;
  height:800px;
  width: 800px;
  position:static;
}

.div2{
  background-color:dodgerblue;
  width: 300px;
  height: 300px;
  position: absolute;
  top:0;
  left: 0;
}
```



50

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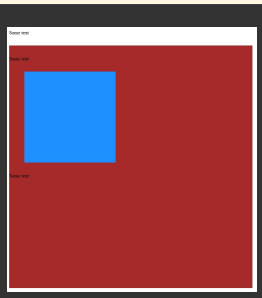
Blue Relative and Red Static

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css"
href="css_example.css">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
 <p>Some text</p>
  <div class="div1">
    <p>Some text</p>
    <div class="div2">
    </div>
    <p>Some text</p>
  </div>
</body>
</html>
```

```css
.div1{
  background-color:brown;
  height:800px;
  width: 800px;
  position:static;
}

.div2{
  background-color:dodgerblue;
  width: 300px;
  height: 300px;
  position: relative;
  top:0;
  left: 50px;
}
```



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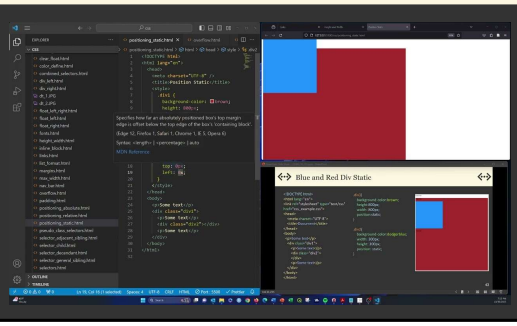
Video: Positioning



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Float and Clear

- Float specifies how an element should float
  - left: float to left of container
  - right: float to right of container
  - none: will not float (default)
  - inherit: inherits float value of parent
- Clear specifies what elements can float beside the cleared element and on which side
  - none: allows float elements on both sides
  - left: no floating elements on left side
  - right: no floating elements on right side
  - both: no floating elements on either the right or left side
  - inherit: the element inherits the clear value of its parent

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Image Float Right

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css"
href="css_example.css">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
  <p><img src="dt_2.JPG">Lorem ipsum dolor sit amet, consectetur adipisicing elit. Non accusantium accusamus sed sapiente soluta magnam recusandae, doloribus quis assumenda voluptatem aut. Aut ipsa hic nihil natus excepturi facere, quia eveniet?</p>
</body>
</html>
```

```css
img{
  max-width:500px;
  float: right;
}

p{
  font-size:40px;
}
```

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Non accusantium accusamus sed sapiente soluta magnam recusandae, doloribus quis assumenda voluptatem aut. Aut ipsa hic nihil natus excepturi facere, quia eveniet?

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Image Float Left

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css"
href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <p><img src="dt_2.JPG">Lorem ipsum dolor sit
amet, consectetur adipisicing elit. Non accusantium
accusamus sed sapiente soluta magnam recusandae,
doloribus quis assumenda voluptatem aut. Aut ipsa hic
nihil natus excepturi facere, quia eveniet?</p>
</body>
</html>
```

```css
img{
   max-width:500px;
   float: left;
}

p{
   font-size:40px;
}
```

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Non accusantium accusamus sed sapiente soluta magnam recusandae, doloribus quis assumenda voluptatem aut. Aut ipsa hic nihil natus excepturi facere, quia eveniet?

55

55

Image Float Left/Other Float Right

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css"
href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <p><img src="dt_2.JPG" class="img1"><img
src="dt_1.JPG" class="img2">Lorem ipsum dolor sit
amet, consectetur adipisicing elit. Non accusantium
accusamus sed sapiente soluta magnam
recusandae, doloribus quis assumenda voluptatem
aut. Aut ipsa hic nihil natus excepturi facere, quia
eveniet?</p>
</body>
</html>
```

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Non accusantium accusamus sed sapiente soluta magnam recusandae, doloribus quis assumenda voluptatem aut. Aut ipsa hic nihil natus excepturi facere, quia eveniet?

```css
.img1{
   max-width:500px;
   float: left;
}

.img2{
   max-width:500px;
   float: right;
}
```

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Clear Float

```html
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <p class="p1"><img src="dt_2.JPG" class="img1">Lorem ipsum dolor sit amet,
consectetur adipisicing elit. Non accusantium accusamus sed sapiente soluta
magnam recusandae, doloribus quis assumenda voluptatem aut. Aut ipsa hic nihil
natus excepturi facere, quia eveniet?</p>
   <p class="p2">Lorem ipsum dolor sit amet, consectetur adipisicing elit.
Voluptate officia sit, nobis sed officiis corporis impedit nihil dignissimos facilis
temporibus a perferendis earum consequuntur voluptas assumenda, sapiente ad,
facere? Suscipit?</p>
</body>
</html>
```

```css
.img1{
   max-width:500px;
   float: right;
}

.p1{
   font-size:40px;
}

.p2{
   font-size:40px;
   clear: right;
}
```

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Non accusantium accusamus sed sapiente soluta magnam recusandae, doloribus quis assumenda voluptatem aut. Aut ipsa hic nihil natus excepturi facere, quia eveniet?

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Voluptate officia sit, nobis sed officiis corporis impedit nihil dignissimos facilis temporibus a perferendis earum consequuntur voluptas assumenda, sapiente ad, facere? Suscipit?

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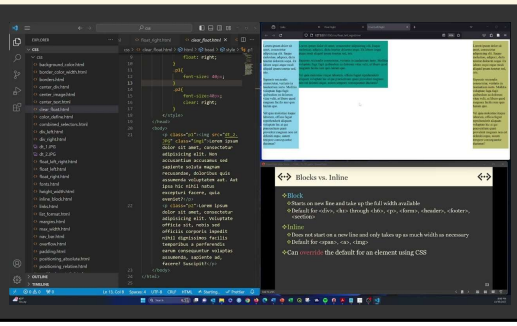
Video: Float and Clear



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Blocks vs. Inline

- Block
  - Starts on new line and take up the full width available
  - Default for , <h1> through <h6>, <p>, <form>, <header>, <footer>, <section>
- Inline
  - Does not start on a new line and only takes up as much width as necessary
  - Default for , <a>, <img>
- Can override the default for an element using CSS

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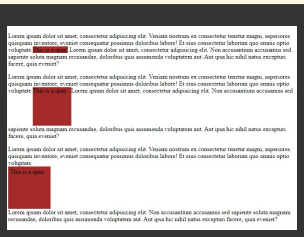
Inline-Block

- Allows for element width and height to be defined
- Can set top and bottom margin and padding
- Does not add line break after element



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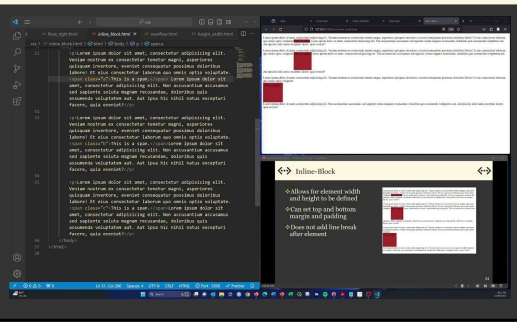
60

Video: Inline Block



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Center an Image

```
.img-style{
    max-width:400px;
    display: block;
    margin-left:auto;
    margin-right:auto;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css"
href="css_example.css">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>
    <p>Some text</p>
    <img src="dt_2.JPG" class="img-style">
    <p>Some text</p>
</body>
</html>
```

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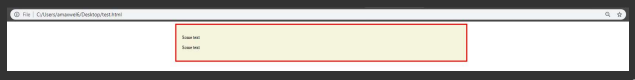
Center a Div

```
.div1{
    margin: auto;
    width: 40%;
    padding: 20px;
    border: solid;
    border-color: red;
    background-color: beige;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>
  <div class="div1">
      <p>Some text</p>
      <p>Some text</p>
  </div>
</body>
</html>
```



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Center Text in a Centered Div

```
.div1{
   margin: auto;
   width: 40%;
   padding: 20px;
   border: solid;
   border-color: red;
   background-color: beige;
}

.p1{
text-align: center;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
 <div class="div1">
     <p class="p1">Some text</p>
     <p class="p1">Some text</p>
 </div>
</body>
</html>
```

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Move Div Right using Absolute

```
.div1{
   position: absolute;
   right: 0px;
   width: 300px;
   padding: 20px;
   border: solid;
   border-color: red;
   background-color: beige;
}

.p1{
text-align: center;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
 <div class="div1">
     <p class="p1">Some text</p>
     <p class="p1">Some text</p>
 </div>
</body>
</html>
```

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Move Div Left using Float

```
.div1{
   float: left;
   width: 300px;
   padding: 20px;
   border: solid;
   border-color: red;
   background-color: beige;
}

.p1{
text-align: center;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
 <div class="div1">
     <p class="p1">Some text</p>
     <p class="p1">Some text</p>
 </div>
</body>
</html>
```

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66

Format a List

```
ul{
   list-style-type: square;
   background-color: gray;
   padding: 50px;
}

li{
   font-size:60px;
   background-color: beige;
   margin: 5px;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
   <ul>
      <li>Item 1</li>
      <li>Item 2</li>
      <li>Item 3</li>
      <li>Item 4</li>
   </ul>
</body>
</html>
```

- Item 1
- Item 2
- Item 3
- Item 4

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Format a Table

```
th, td {
  padding: 8px;
  text-align: left;
  border-bottom: 1px solid #ddd;
  font-size: 30px;
}

tr:hover {background-color: #f5f5f5;}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
  <meta charset="UTF-8">
  <title>Document</title>
</head>
<body>
  <table>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
    <tr>
      <td>1A</td>
      <td>1B</td>
      <td>1c</td>
    </tr>
    <tr>
      <td>2A</td>
      <td>2B</td>
      <td>2C</td>
    </tr>
    <tr>
      <td>3A</td>
      <td>3B</td>
      <td>3C</td>
    </tr>
    <tr>
      <td>4A</td>
      <td>4B</td>
      <td>4C</td>
    </tr>
  </table>
</body>
</html>
```

A	B	C
1A	1B	1c
2A	2B	2C
3A	3B	3C
4A	4B	4C

https://www.w3schools.com/css/css_table.asp

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Create Navigation Bar

- Can create with inline-block

```
.nav {
  background-color: dimgray;
  border: solid;
  border-color: black;
  list-style-type: none;
  text-align: center;
  margin: 0;
  padding: 0;
}
.nav li {
  display: inline-block;
  font-size: 20px;
  padding: 20px;
}
```

```
<!DOCTYPE html>
<html lang="en">
<link rel="stylesheet" type="text/css" href="css_example.css">
<head>
   <meta charset="UTF-8">
   <title>Document</title>
</head>
<body>
<ul class="nav">
   <li><a href="http://maxwellae.wixsite.com/maxwell-geospatial">Home</a></li>
   <li><a href="http://maxwellae.wixsite.com/maxwell-geospatial">Courses</a></li>
   <li><a href="http://maxwellae.wixsite.com/maxwell-geospatial">Prof Maxwell</a></li>
   <li><a href="http://maxwellae.wixsite.com/maxwell-geospatial">Contact</a></li>
</ul>
</body>
</html>
```

Home Courses Prof Maxwell Contact

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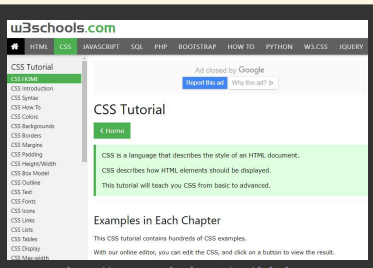
Learn More



https://www.w3schools.com/css/default.asp

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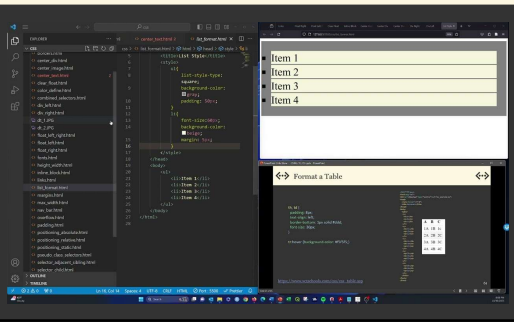
Video: Additional Examples



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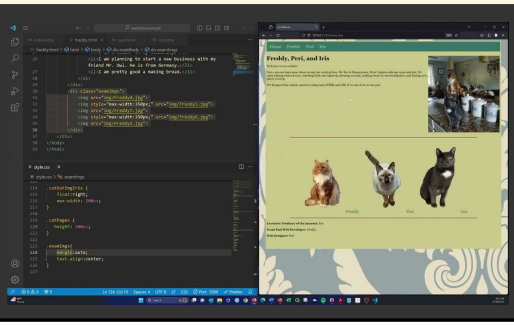
Video: Final CSS Example



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This is the end of this lecture module.

Please return to the West Virginia View Webpage for additional content.

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