

# CS 146: Intro to Web Programming and Project Development

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# Introduction to CSS



# 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
- Try it yourself:
  - In the previous exercise, try to change the color of `<p>` using the inline method (inside the `<p>` tag in the html file) while using the external CSS!



# Cascading Order

- Generally speaking we can say that all the styles will "cascade" into a new "virtual" style sheet by the following rules, where number one has the highest priority
  1. Inline style (inside an HTML element)
  2. Internal style sheets (in the head section)
  3. External style sheets
  4. Browser default
- Don't use inline styles, if possible, they have the highest priority and you will have to edit the html files to change the style
- It is much cleaner and more flexible to use external style sheets



# CSS Colors

- Colors in CSS are most often specified by:
  - a valid color name - like "red"
  - an RGB value - like "rgb(255, 0, 0)"
  - a HEX value - like "#ff0000"
- “background-color:red”
- “background-color:rgb(255, 0, 0)”
- “background-color:#FF0000”



# CSS3 Colors

- In addition, CSS3 introduces
  - RGBA colors
  - HSL colors
  - HSLA colors
  - Opacity

```
{background-color: rgba(255, 0, 0, 0.3);} /* red with opacity */  
{background-color: rgb(255, 0, 0); opacity: 0.6;} /* red with opacity */
```



# CSS Backgrounds

- The CSS background properties are used to define the background effects for elements
- CSS background properties:
  - background-color
  - background-image
  - background-repeat
  - background-attachment
  - background-position
- CSS3 properties:
  - background-size
  - background-origin
  - background-clip



# Styling Backgrounds

- background-color: #FF0000
- background-image: url('file.gif')
- background-repeat:
  - repeat, repeat-x, repeat-y, no-repeat, inherit
- background-attachment:
  - scroll, fixed, inherit
- background-position:
  - [left right center] [top center bottom]
    - e.g. left center
  - x% y% (from 0% 0% top left to 100% 100% bottom right)
  - xpos ypos (in pixels)
- You can combine in one line:
  - background {background: #ffffff url('file.png') no-repeat right top;}

What element should we set the background to?





# CSS3 Background Styling

- CSS3 allows you to add multiple background images for an element, through the background-image property
- The different background images are separated by commas, and the images are stacked on top of each other, where the first image is closest to the viewer

```
#example1 {  
    background-image: url(img_flwr.gif), url(paper.gif);  
    background-position: right bottom, left top;  
    background-repeat: no-repeat, repeat;  
}
```



# Exercise

- For the html code we wrote for the `<div>` element, add two background images to the `<div>` using an external CSS file, and experiment with the different attributes



# CSS3 Background Size

- The CSS3 background-size property allows you to specify the size of background images
- Before CSS3, the size of a background image was the actual size of the image; CSS3 allows us to re-use background images in different contexts
- The size can be specified in lengths, percentages, or by using one of the two keywords: contain or cover



# CSS Background Origin

- The CSS3 background-origin property specifies where the background image is positioned
- The property takes three different values:
  - border-box - the background image starts from the upper left corner of the border
  - padding-box - (default) the background image starts from the upper left corner of the padding edge
  - content-box - the background image starts from the upper left corner of the content



# CSS Background Clip

- The CSS3 background-clip property specifies the painting area of the background
- The property takes three different values:
  - border-box - (default) the background is painted to the outside edge of the border
  - padding-box - the background is painted to the outside edge of the padding
  - content-box - the background is painted within the content box

# CSS Background Clip

## Lorem Ipsum Dolor

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.

background-clip: padding-box;

## Lorem Ipsum Dolor

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background-clip: content-box;

## Lorem Ipsum Dolor

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# CSS Borders

- 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
  - .....



# CSS Borders

- 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
- The border-style property can have from one to four values (for the top border, right border, bottom border, and the left border)





# Border Width, Color & Radius

- 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-color property is used to set the color of the four borders
- The border-radius property is used to add rounded borders to an element

Rounder border



# CSS Padding

```
p {  
    background-color: lightblue;  
}
```

This is a paragraph.

```
p {  
    background-color: lightblue;  
    padding: 25px 50px;  
}
```

This is a paragraph.