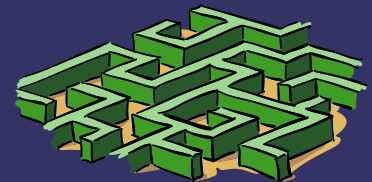# *Cascading Stylesheets*

Outline

➲ Definitions / History
- Types / Uses

➲ Examples

Definitions

➲ CSS

● CSS is a stylesheet language used to describe the presentation of a document written in a markup language. Its most common application is to style web pages written in HTML and XHTML, but the language can be applied to any kind of XML document. CSS is used to define color, fonts, layout and other **aspects** of document presentation. It is designed primarily to enable the separation of document structure from document presentation.
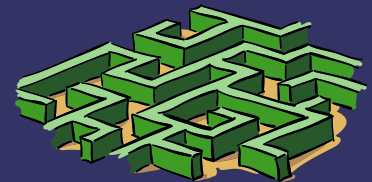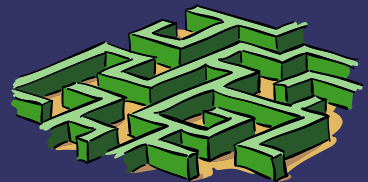
Definitions

➲ W3C

- The World Wide Web Consortium (W3C) is an international consortium where member organizations, a full-time staff, and the public, work together to develop standards for the World Wide Web. W3C's mission is: "To lead the World Wide Web to its full potential by developing protocols and guidelines that ensure long-term growth for the Web". W3C also engages in education and outreach, develops software, and serves as an open forum for discussion about the Web. The Consortium is headed by Tim Berners-Lee, the original creator of the World Wide Web and primary author of the URL (Uniform Resource Locator), HTTP (HyperText Transfer Protocol) and HTML (HyperText Markup Language) specifications, the principal technologies that form the basis of the Web.
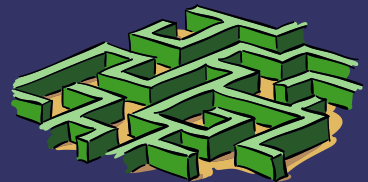
    …and CSS!!!

Brief History

➲ CSS1 released in December 1996

- Around 50 properties for simple formatting, fonts and colors

➲ CSS2 released in May 1998

- Additional 70 properties for more advanced features

➲ Browsers only recently became capable of correctly implementing this technology (but even now there's Excedrin involved)

➲ CSS3 is in the works

Style Rules

➲ CSS style rules look like this:

Selector {

    property0:value0;

    property1:value1;

    propertyZ:valueZ

    }

Types of CSS

➲ Inline Styles

- Inline styles are coded in the body of the web page as an attribute of an XHTML tag. The style only applies to the specific element that contains it as an attribute

➲ Embedded Styles

- Embedded styles are defined in the header of a web page. These style instructions apply to the entire web page document.

➲ Linked Styles

- Linked Styles are coded in a separate text file. This text file is linked to the web page by using a <link> tag in the header section.

➲ Imported Styles

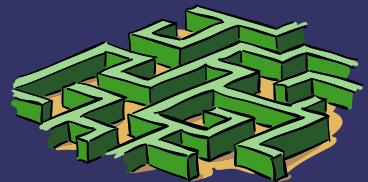- Imported Styles are similar to External Styles in that they are coded in a separate text file.

Linked CSS

```
<html>

  <head>
    <link rel="stylesheet"
      type="text/css"
      href="style.css" />
  </head>
  <body>
```

Embedded CSS

```html
<html>
  <head>
    <style type="text/css">
      <!-- Your CSS Here -->
    </style>
  </head>
  <body>
```

Inline CSS
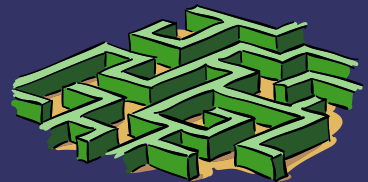
```
<html>
   <head>
   </head>
   <body>
        <p style="color:#FF00FF">
            A magenta paragraph!
        </p>
        <h1 style="color:#770000;
                font-style:italic">
            A dark red heading in italics!
        </h1>
```

Grouping CSS Rules

➲ Instead of this…

CSS: H1 { color: #FFFF00; }
            H2 { color: #FFFF00; }

➲ You can do this…
CSS: H1, H2 { color: #FFFF00; }

Classes and IDs

➲ Classes

- Allow styles for groups of elements
  CSS: .warning { color: red; }
  HTML: <h3 class="warning">
            File not found.
        </h3>

➲ IDs

- Allow styles for specific elements
  CSS: #copyright { color: blue; }
  HTML: <p id="copyright">
            © 2005.
        </p>

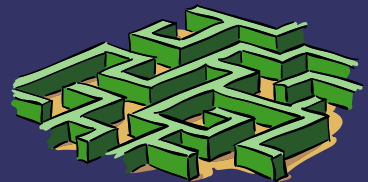# *Using classes*

CSS: p.black {color: #000000;}
p.blue {color: #000080;}

HTML: <p class="black">

This sentence is black.

</p>
<p class="blue">
This sentence is blue.

</p>

Common CSS Properties

➲ background-color
➲ color
➲ font-family
➲ font-size
➲ padding
➲ margin
➲ text-decoration
➲ line-height
➲ text-align
➲ background-image

CSS Units

➲ Used for specific heights and lengths

➲ CSS supports several length units

- px – Pixels – screen dots
- pt – Points – font sizes
- in, cm – Inches and centimeters
- % - percent of the current/parent font/element
- em – height of current font

➲ Pixels vs. Em

- For easiest/best design control – pixels
- For best flexibility/accessibility – % or em

Fonts

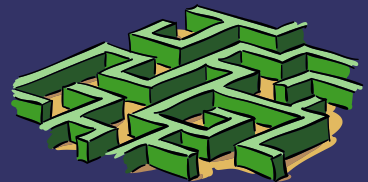➲ font-family

- Ordered list of font names
- Quote names with spaces: ex. "Arial Black"

CSS: p.arial {

       font-family: Arial, Helvetica, sans-serif;

       }

➲ font-size

- larger, smaller, or specific height

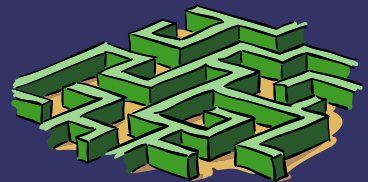CSS: p.big { font-size: 60px; }

Colors

➲ color:

- Named Colors: red, blue, green
- Hex: #FFCC00, #FC0
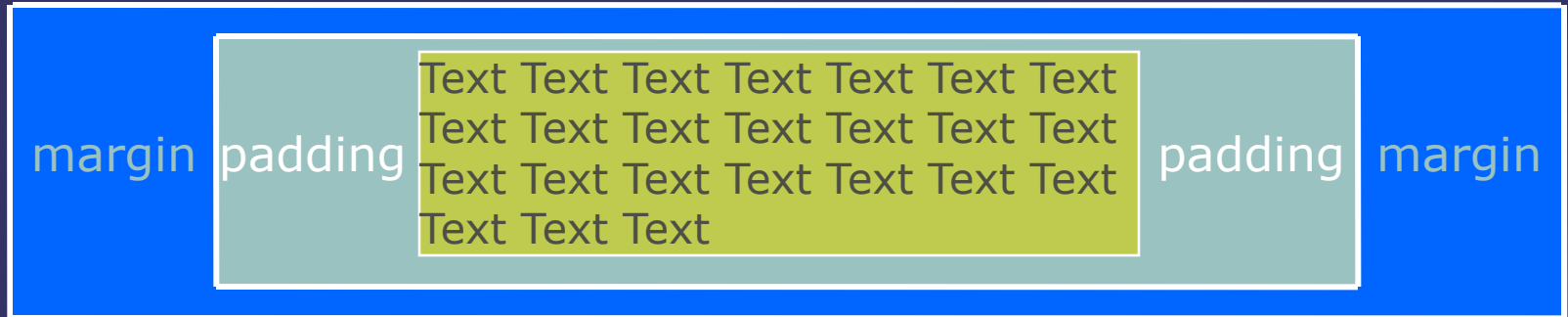- RGB values: rgb(123, 123, 123)

CSS: p.green { color: #00FF00; }

➲ background-color:

- color or transparent

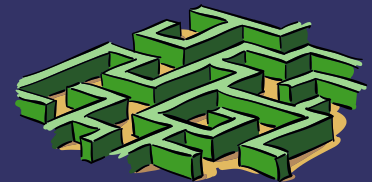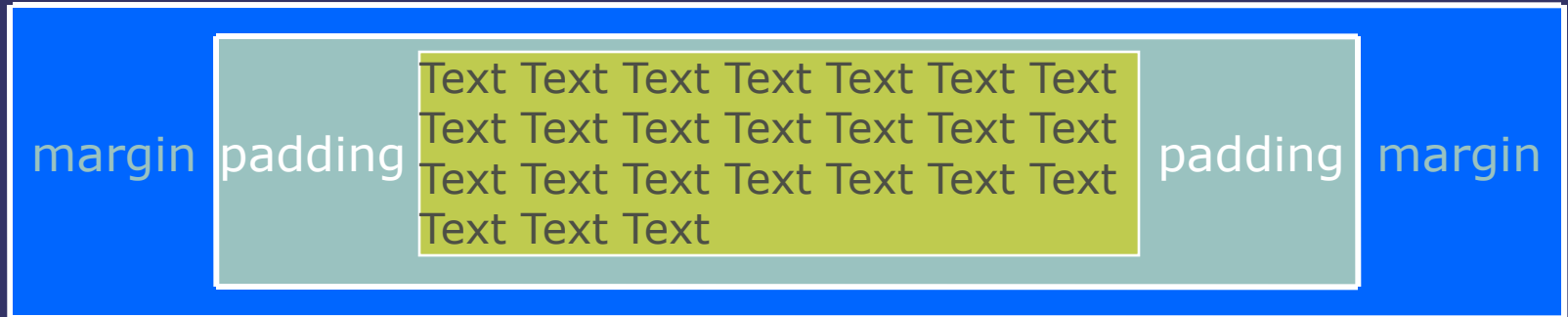CSS: p.highlight { background-color: #FFCC00;   }

Margins & Padding

margin | padding | Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text | padding | margin

➲ Margin

● The space between this and other elements

● margin-top, margin-right, margin-bottom, margin-left

● margin: 5px 10px 5px 10px;

● Values are in clockwise order

Margins & Padding

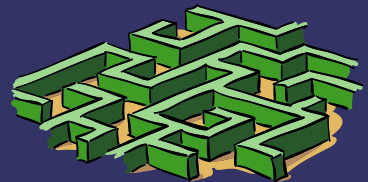| margin | padding | Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text Text | padding | margin |

➲ Padding

- The space between the margin and the element

- padding-top, padding-right, padding-bottom, padding-left (can use same shortcut as with margins)

- Comparable to TABLE's cell-padding

The Box Model

➲ http://www.w3schools.com/

➲ http://quackit.com/

➲ http://www.tizag.com/

➲ http://www.html.net/tutorials/css/
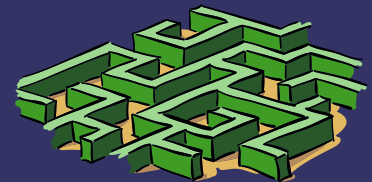
DIV and SPAN

➲ DIV

- Block elements (like 'p' and 'h1')
- Use the <div> tag to create a specially formatted division or area of a web page. It can be used to format that area and places a line break before and after the division.
  CSS: div.chapter_title { font-size: 24pt; }
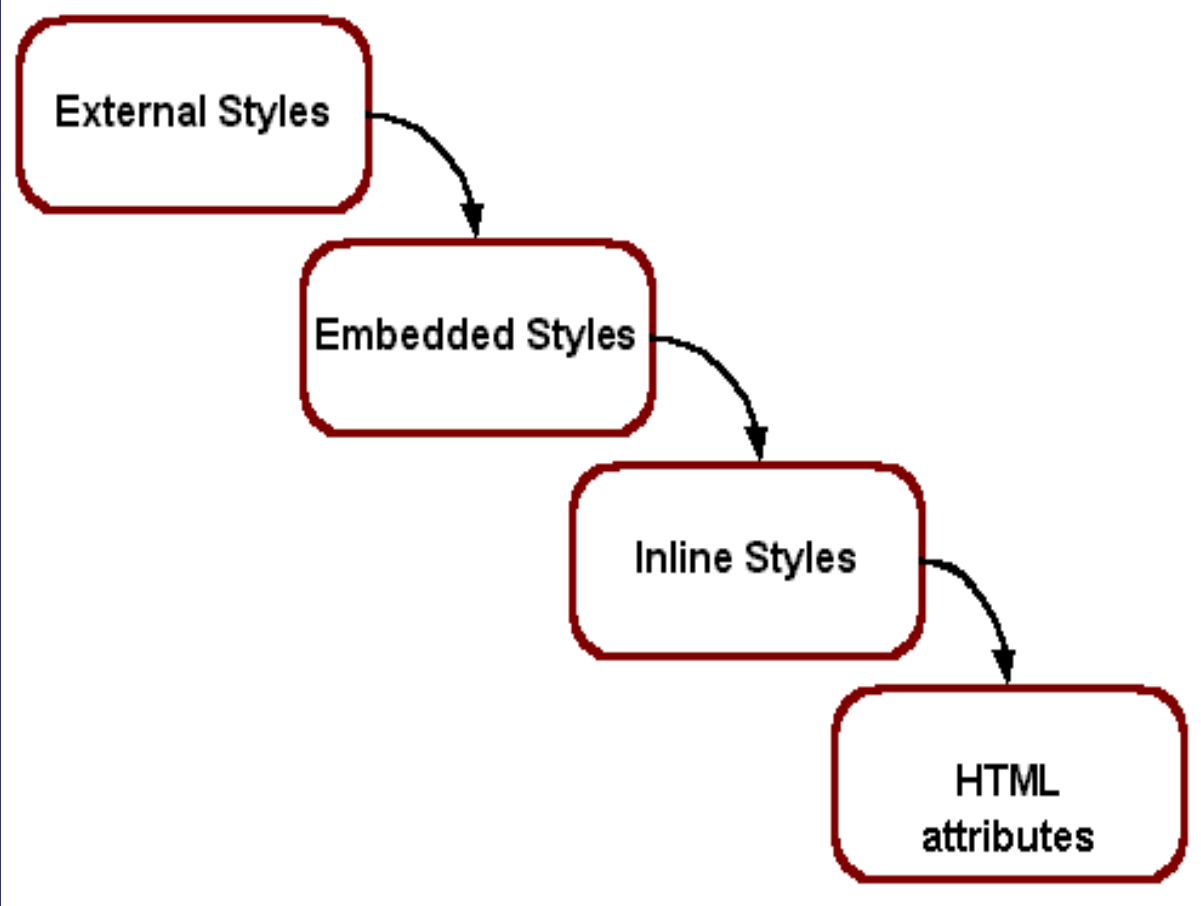   div#heading {font-color: blue; }

➲ SPAN

- Inline element (like 'a' and 'img')
- Use the <span> tag if you need to format an area that is contained within another, such as within a paragraph.
  CSS: span.really_bold { font-weight: bold;
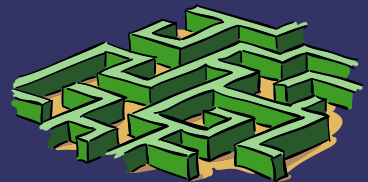   font-size: 110% }

The Cascade

➲ This "cascade" applies the styles in order from outermost (External / Linked Styles) to innermost (actual XHTML code on the page).

➲ This way site-wide styles can be configured but overridden when needed by more granular (or page specific) styles.

CSS Benefits

➲ CSS was a revolution in the world of web design.

➲ control layout of many documents from one single style sheet;

➲ more precise control of layout;

➲ apply different layout to different media-types (screen, print, etc.)

More Complex Demos

➲ http://www.cssplay.co.uk/boxes/krazy.html
➲ http://cssplay.co.uk/menu/tablescroll.html
➲ http://cssplay.co.uk/menu/mantis.html
➲ http://cssplay.co.uk/menu/gallery3l.html
➲ http://www.cssplay.co.uk/menus/menuthree.html
➲ http://www.cssplay.co.uk/menus/menu5teen.html
➲ http://www.cssplay.co.uk/menus/ultimate.html
➲ http://www.cssplay.co.uk/menus/snazzymenu.html
➲ http://www.cssplay.co.uk/menus/snazzymenu2.html
➲ http://www.cssplay.co.uk/boxes/borders.html

➲ http://www.positioniseverything.net/css-flyout.html

➲ http://csszengarden.com/