Cascading Style Sheets

Eduardo Rosado

Eduardo Juárez

Cascading Style Sheets

- CSS have the capability to impose consistency of the style in web documents
- CSS are called *cascading* because they can be defined at three levels to specify the style of a document.
- Lower-level style sheets override higher-level style sheets

Levels of Style Sheets

- Inline (lowest level)
  - Single XHTML element
- Document
  - Whole body of a document
- External (highest level)
  - Bodies of any number of documents

Levels of Style Sheets

- The properties of a specific tag are those that result from a merge of all applicable style sheets
- If no style sheet information is specified, the browser default property values are used.

Inline level

- Appear within the opening tag in the style attribute
  - <p style="font-size: 20pt; color: #6666ff">
- Do not separate presentation from content
- Deprecated in XHTML 1.1 by the W3C

Document level

- Appear embedded in the document head section in the tag <style>

```
<head>
    <style type="text/css">
            p      { font-size: 20pt;
                     color: #6666ff }
    </style>
</head>
```

External level

- Are not part of any of the documents to which they apply.
- CSS are written as text files with the MIME type text/css
- The <link> tag is used to specify external style sheets

```
<link rel="stylesheet" type= "text/css" href="mycss.css" />
```

External style sheet

- mycss.css

```
/* External style sheet comment */
/* Simple selector format:
      XHTMLtag { style-rules }
*/
body   { font-family: arial, helvetica, sans-serif }
h1     { font-size: 24pt; }
ul, li { margin-left: 20px } /* Applies to both tags */
li em  { font-weight: bold } /* Applies to <em> tag insdide <li> */
ul ul  { font-size: .8em; } /* Applies to <ul> tag insdide <ul> */
```

Class selectors

- Are used to allow different ocurrences of the same tag to use different style specifications
- A style class is defined in a style element by giving it a name

```
p.normal  { font-size: 95%; }
p.warning  { background-color: #FFD700; }

<p class="normal">Normal presentation</p>
<p class="warning">Warning presentation</p>
```

Generic selectors

- Apply to the content of more than one kind of tag

```
.info  { background-color: #00AACC; }

<p class="info">Information in a paragraph</p>
<h3 class="warning">Information in a level 3 header</h3>
<li class="warning">Information in a list  item</li>
<div class="info">…</div>
```

id selectors

- Allows the application of a style to one specific element (workaround for inline styles)

```
#paragraph2  { font-size: 20pt; color: #6666ff; }

<p id="paragraph2">Paragraph 2 information</p>
```

Universal selectors

- Apply to all elements in the document

```
* { color: red; }
```

Pseudo classes

- Apply when something happens

```
Input:hover { color: red; }
Input:focus { color: green; }
```

Color properties

- Color names: red, green, blue
- RGC: rgb(255, 255, 255)
- Hexadecimal: #0077FF

Font properties

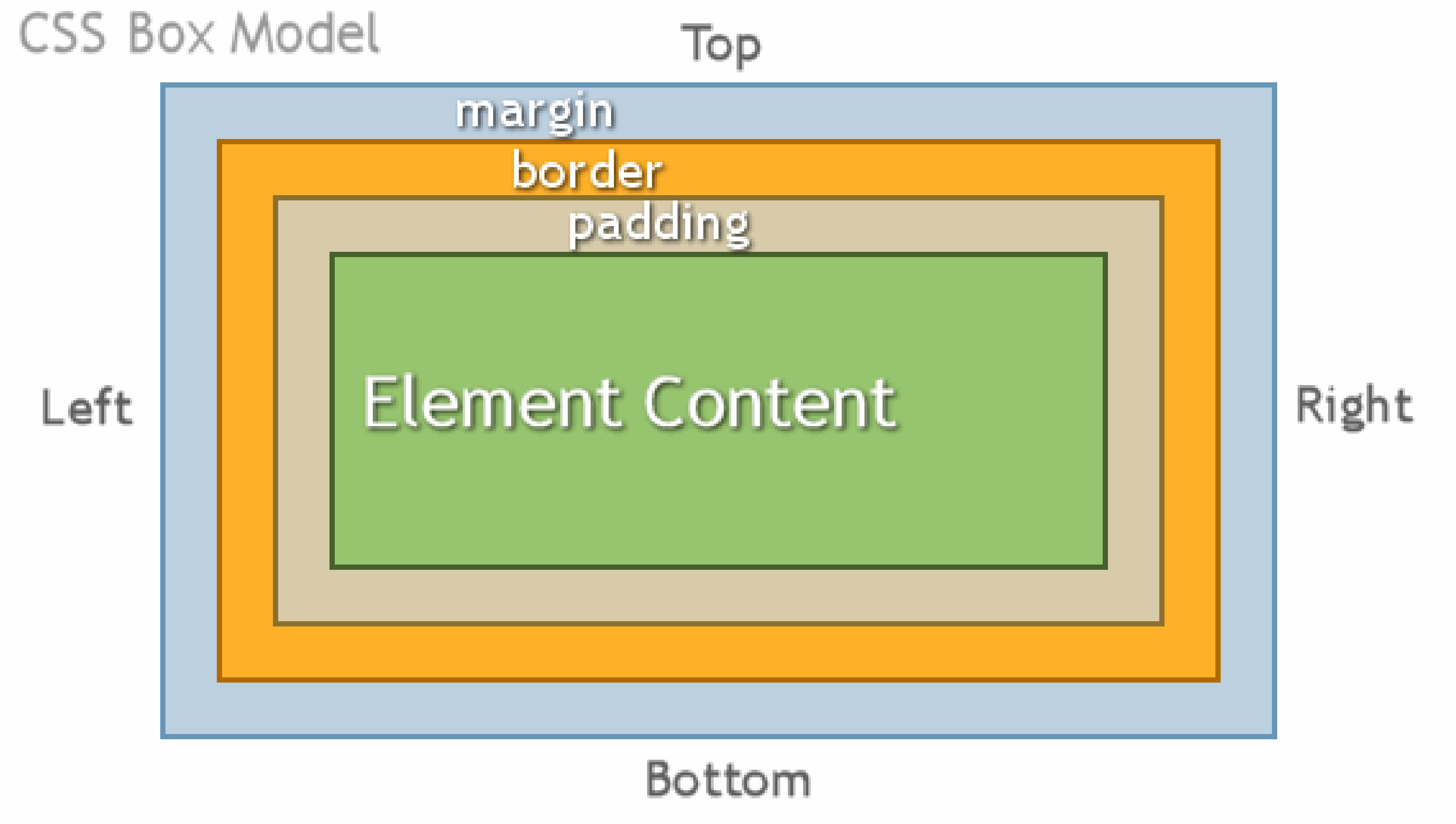
- font-family: serif, sans-serif, cursive, fantasy, monospace
- font-size:
    - Relative: xx-small, x-small, small, medium, large, x.large, xx-large, 50%, 90%, 1.5em (M-height of the font)
    - Absolute: 10pt
- font-style: italic
- font-weight: bold

List properties

- list-style-image: url(bullet.gif)
- List styles:

```
ol        { list-style-type: upper-roman }
ol ol     { list-style-type: upper-alpha }
ol ol ol  { list-style-type: decimal }
```

The box model



The box model

- CSS controls the border using three properties: border-width, border-color, border-style
- padding: Distance between the content inside an element and the inside of the element’s border
- padding and margin can have a specific value for individual sides: margin-top, padding-bottom, margin-right, padding-left, etc.

Conflict resolution

- !important
  - Property values can be declared as !important
- Precedence
  - Id selectors
  - Class and pseudo-class selectors
  - Contextual selectors (more element type names means they are more specific)
  - Universal selectors