

Web Development Technologies: HTML and CSS

Paul Fodor

CSE316: Fundamentals of Software Development

Sony Brook University

<http://www.cs.stonybrook.edu/~cse316>

Topics

- HTML
- CSS

HTML

- Hypertext Markup Language
 - Describes structure of a web page
 - Contains *elements*
 - Elements describe how to render content
 - Elements are enclosed in Tags
 - *Tags* surround and describe content
 - Start tag – Text in angle brackets (i.e. <body>)
 - End tag – Text with leading slash in angle brackets (i.e. </body>)
 - Tags must be properly nested!
 - *Attributes* contained inside tags refine the operation of the tag
 - Format is: <tagname attr1=value, attr2=value...>

A brief history of HTML

- In 1989, Tim Berners-Lee wrote a memo proposing an Internet-based hypertext system
 - Berners-Lee specified HTML and wrote the browser and server software in late 1990 and released it in 1991 (it had 18 elements/tags)
 - HTML 2.0 was published as RFC 1866 in 1995
 - <https://tools.ietf.org/html/rfc1866>
 - A Request for Comments (RFC) is a publication from the Internet Society (ISOC)
 - The Internet Society (ISOC) is an American nonprofit organization founded in 1992 to provide leadership in Internet-related standards, education, access, and policy.

A brief history of HTML

- HTML 3.2 was published as a W3C Recommendation in January 1997
- The World Wide Web Consortium (W3C) is the international standards organization for the World Wide Web, founded in 1994 by Tim Berners-Lee after he left the European Organization for Nuclear Research (CERN).
 - It was founded at the Massachusetts Institute of Technology Laboratory for Computer Science (MIT/LCS) with support from the European Commission and the Defense Advanced Research Projects Agency (DARPA)
- HTML 4.0 was published as a W3C Recommendation in December 1997
- HTML 4.01 was published in 2001
- HTML 5 was published as a W3C Recommendation in 2014

A brief history of HTML

- XHTML is a separate language that began as a reformulation of HTML 4.01 using XML 1.0.
 - XHTML 1.0 was published as a W3C Recommendation on January 26, 2000
 - It is no longer being developed as a separate standard.

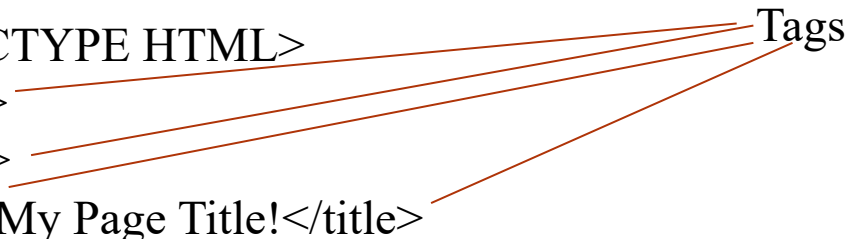
HTML 5

- HTML5 was first released in on 22 January 2008, with a major update and "W3C Recommendation" status in October 2014
- The current specification is known as the **HTML Living Standard** and is maintained by a consortium of the major browser vendors (Apple, Google, Mozilla, and Microsoft), the Web Hypertext Application Technology Working Group (WHATWG)
 - On 28 May 2019, the W3C announced that WHATWG would be the sole publisher of the HTML and DOM standards

HTML – Simple HTML web page

```
<!DOCTYPE HTML>  
<html>  
  <head>  
    <title>My Page Title!</title>  
  </head>  
  <body>  
  
    <h1>Introduction</h1>  
    <p>This is a simple HTML web page. The content here is part of  
    a 'paragraph'. Web browser will lay out this text and introduce  
    line breaks so the text fits nicely in the browser window.</p>  
  
  </body>  
</html>
```

Tags



HTML – Basic Tags

- `<html></html>` - Surround entire document
- `<head></head>` - Surround header material (titles, css info, etc.)
- `<body></body>` - Contains the main content of the page
- `<p></p>` - Hold a single paragraph that the browser will typeset.
- `<h1></h1>`, `<h2></h2>`, ... - Hold a heading line that is used to mark sections of a document for the reader

HTML – More basic tags

- Links – These mark a hyperlink around link text. When click by user, browser loads the page in the HREF attribute.
 - Format `Text for link`
 - Only 'Text for link' will show up on page.
 - Target attribute, indicates which window/tab should be used for the linked page
 - **target="_self"** – Default. Place the content in the current tab
 - **target="_blank"** – Place the content in a newly created tab

HTML – More basic tags

- `` - Will display an image
 - Image file must be in a popular graphics format (gif, jpg, png, etc)
 - Format :

``

HTML – More on Links

- *href* attribute
 - This can be any URI or local file
 - URI should include protocol, server, and path
 - Local file can be specified with an absolute or relative path
- Content can be text OR an image. Ex:

```
<A HREF=http://target.com/path/file.html>
```

```
<IMG src="small_pic.jpg">
```

```
</A>
```

- *title* attribute
 - Used to provide descriptive text.
 - Text is displayed when cursor is hovered over link

HTML – More on Links

- Links can target ‘bookmarks’ created with the *id* attribute on a tag
- Will scroll to the section marked with the named id

some_web_page.html:

```
...  
<h2 id="MoreStyles">  
...
```

Inner link:

```
<A HREF="#MoreStyles">Go to MoreStyles section"</A>
```

From another_web_page.html:

```
...  
<A HREF=http://someserver.com/some\_web\_page.html#MoreStyles>See info on Styles</A>
```

HTML - Lists

- Supports:
 - `` - Unordered List
 - `` - Ordered List
 - `` - Encloses a single list item

HTML – Example: Lists

```
<!DOCTYPE html>
<html>
<body>
```

```
<h2>Unordered List</h2>
```

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

```
<h2>Ordered List</h2>
```

```
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

```
</body>
</html>
```

Unordered List

- Coffee
- Tea
- Milk

Ordered List

1. Coffee
2. Tea
3. Milk

HTML – Adding styles to lists

- UL takes a style attribute to customize the list
 - list-style-type
 - circle
 - square
 - disc
 - none

HTML – Example: Styled lists

```
<!DOCTYPE html>
<html>
<body>
<h2>Unordered List with Disc Bullets</h2>
<ul style="list-style-type:disc;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
</body>
</html>
```

Unordered List with Disc Bullets

- Coffee
- Tea
- Milk

```
<!DOCTYPE html>
<html>
<body>
<h2>Unordered List with Square Bullets</h2>
<ul style="list-style-type:square;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
</body>
</html>
```

Unordered List with Square Bullets

- Coffee
- Tea
- Milk

HTML – Formatting Tags

- `` - Bold text
- `` - Important text (similar to bold)
- `<i></i>` - Italic text
- `` - Emphasized text (similar to Italic)
- `<mark></mark>` - Marked text
- `<small></small>` - Small text
- `` - Deleted text (stroked text)
- `<ins></ins>` - Inserted text
- `` - Subscript text
- `` - Superscript text

HTML – Example: Formatting Tags

```
<!DOCTYPE html>
<html>
<body>
```

```
<p>This text is normal.</p>
<p><b>This text is bold.</b></p>
<p><i>This text is italic.</i></p>
<p><em>This text is emphasized.</em></p>
<p><strong>This text is strong.</strong></p>
<p><mark>This text is marked.</mark></p>
<p><small>This text is small.</small></p>
<p><del>This text is deleted.</del></p>
<p><ins>This text is inserted.</ins></p>
<p>This text is <sup>superscripted.</sup></p>
<p>This text is <sub>subscripted.</sub></p>
```

```
</body>
</html>
```

This text is normal.

This text is bold.

This text is italic.

This text is emphasized.

This text is strong.

This text is marked.

This text is small.

~~This text is deleted.~~

This text is inserted.

This text is ^{superscripted}.

This text is _{subscripted}.

HTML - Comments

- Comments are contained in '`<!-- -->`'
- Example:

`<!-- This is a comment and does not affect
rendering of the page at all -->`

HTML - Styles

- Style information can be included in tags with the 'style=' attribute
- Format : `<tag style="attr1:value1; attr2:value2"> text text text </tag>`
 - attr1 and attr2 are style property names
 - value1 and value2 are values to attach to the properties
- Most common style attributes:
 - **background-color** for background color
 - **color** for text colors
 - **font-family** for text fonts
 - **font-size** for text sizes
 - **text-align** for text alignment

`<p style="background-color:red; color=black">Paragraph text. </p>`

- Using CSS (Cascading Style Sheets) is actually much easier and less error prone

HTML – Tables

- HTML Supports creating tables
 - Tags:
 - `<table></table>` - Encloses the entire contents of the table
 - `<tr></tr>` - These bracket a 'row' of data cells
 - `<th></th>` - These tags support a row used specifically for column headings
 - `<td></td>` - These tags go around data for a specific cell
 - `<caption>` - This defines a table caption

HTML – Example: Tables

```
<html>
<body>

<h2>Basic HTML Table</h2>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>

  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>

  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>

  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
</body>
</html>
```

Basic HTML Table

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

HTML – Forms

- Forms can be used to collect data and respond to queries
- Tags:
 - **<form></form>** - This encases the entire form
 - Forms contain a number of input elements as well as text fields
 - There is at least one input to indicate when to submit a form to the back end.
- Form tag attributes
 - **action=** - This indicates the script on the server to run when the submit action is selected
 - **method=** - This indicates what 'HTTP method' to use (i.e. "GET", "PUT", "POST", etc)
- Input Tags within a form:
 - **<input></input>** This encloses input fields of various types based on attributes in the tag

HTML – Example: Forms

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2>HTML Forms</h2>
```

```
<form action="/action_page.php">
```

```
  First name:<br>
```

```
  <input type="text" name="firstname" value="Mickey">
```

```
  <br>
```

```
  Last name:<br>
```

```
  <input type="text" name="lastname" value="Mouse">
```

```
  <input type="text" name="age" value="0"><br>
```

```
  <input type="radio" name="gender"> Female<br>
```

```
  <input type="radio" name="gender"> Male<br>
```

```
  <input type="radio" name="gender"> Unspecified<br>
```

```
  <br><br>
```

```
  <input type="submit" value="Submit">
```

```
</form>
```

```
<p>If you click the "Submit" button, the form-data will be sent to a page called "/action_page.php".</p>
```

```
</body>
```

```
</html>
```

HTML Forms

First name:

Last name:

☐ Female

☐ Male

☒ Unspecified

If you click the "Submit" button, the form-data will be sent to a page called "/action_page.php".

HTML – Miscellaneous Tags

- **<pre></pre>** - Pre-formatted text Browser will render content as it is written in the html file.
- **
** - Add a line break here. There is no **</br>**
- **<hr>** - Add a 'horizontal rule' (horizontal line).
There is no **</hr>**

CSS

- CSS = Cascading Style Sheets
- Greatly simplifies styling HTML
- Easy to keep consistent styling
- Instructions are written as a *rule-set*

A brief history of CSS

- CSS was first proposed by Håkon Wium Lie on October 10, 1994, and W3C CSS Recommendation (CSS1) was released in 1996.
- CSS level 2 specification was developed by the W3C and published as a recommendation in May 1998.
- CSS2.1 as finally published as a W3C Recommendation on 7 June 2011.

A brief history of CSS

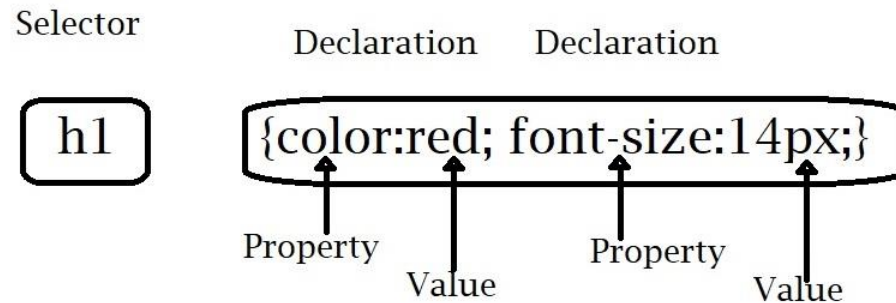
- CSS 3 is divided into several separate documents called "modules" and its notes are posted on W3C:
 - `css3-background` CSS Backgrounds and Borders Module Level 3 Candidate Rec. Oct 2017
 - `css3-box` CSS basic box model Working Draft Jul 2018
 - `css-cascade-3` CSS Cascading and Inheritance Level 3 Candidate Rec. May 2016
 - `css3-color` CSS Color Module Level 3 Recommendation Jun 2018
 - `css3-content` CSS3 Generated and Replaced Content Module Working Draft Jun 2016
 - `css-fonts-3` CSS Fonts Module Level 3 Recommendation Sep 2018
 - `css3-gcpm` CSS Generated Content for Paged Media Module Working Draft May 2014
 - `css3-layout` CSS Template Layout Module Note Mar 2015
 - `css3-mediaqueries` Media Queries Recommendation Jun 2012
 - `mediaqueries-4` Media Queries Level 4 Candidate Rec. Sep 2017
 - `css3-multicol` Multi-column Layout Module Level 1 Working Draft May 2018
 - `css3-page` CSS Paged Media Module Level 3 Working Draft Mar 2013
 - `selectors-3` Selectors Level 3 Recommendation Nov 2018
 - `selectors-4` Selectors Level 4 Working Draft Feb 2018
 - `css3-ui` CSS Basic User Interface Module Level 3 (CSS3 UI) Recommendation Jun 2018

A brief history of CSS

- There is no single, integrated CSS 4 specification
 - The CSS Working Group sometimes publishes "Snapshots", a collection of whole modules and parts of other drafts that are considered stable enough to be implemented by browser developers in 2007, 2010, 2015, 2017, and 2018.

CSS rule-sets

- CSS rule-sets have the following format:



- Selectors indicate the tag or other element
- Property/value pairs give the attribute to define and the value of the attribute
- Property/value pairs are separated with a semicolon ;

CSS - Selectors

- Selectors can be
 - A tag name (i.e. `<p>`) – This will apply to all tags of that type in the document
 - An id (`<h2 id="foo">`) – The style will apply to ANY tag with the named id.
 - A class (`<p class="LargeRed">`) The style will apply to ANY element with the named class)

CSS – Examples: Selectors

<pre>p { text-align: center; color: blue; }</pre>	Applies to all paragraphs in the document
<pre>#C4 { text-align: left; color: red; }</pre>	Applies to any tag marked with <i>id</i> = "C4"
<pre>.center { text-align: center; color: green; }</pre>	Applies to any tag marked with <i>class</i> = "center"

CSS – Selector Grouping

- Selectors for elements with the same style can be grouped and use a common style description

```
h1, h2, p {  
    text-align: center;  
    color: red;  
}
```

CSS – Placement of CSS Information

- CSS style information can be put in one of three places:
 - External sheet
 - Can be used for an entire website
 - Each .html file must reference same sheet
 - Internal sheet
 - Can be used to consistently style 1 html page
 - Inline styles

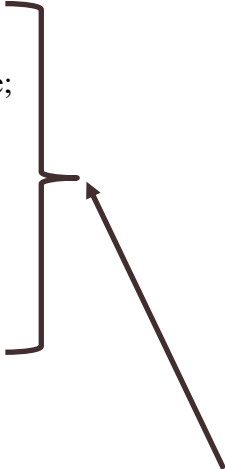
CSS – External Style Sheets

my_site_style.css:


```
body {  
  background-color: lightblue;  
}  
  
h1 {  
  color: navy;  
  margin-left: 20px;  
}
```

a_web_page.html:

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



Separate file
holding style
information



References the file
with style
information

CSS – Internal Style Sheets

```
<html>
<head>
<style>
body {
  background-color: linen;
}

h1 {
  color: maroon;
  margin-left: 40px;
}
</style>
</head>
<body>
...
</body>
</html>
```



All style information
enclosed in <style> tag within
the <head> of an html
document

CSS – Local Inline styles

- Style info can be placed inside any tag (as has been seen earlier)
- Ex: `<h1 style="color:red; text-size:14px;">`

CSS – Cascading Order

- With a mix of internal, external, and inline style information, the styles will be applied by building a ‘virtual’ style sheet considering each style specification in the following priority order:
 - Inline style (inside an HTML element)
 - External and internal style sheets (in the head section using order of links/style sections in the head)
 - More specific selectors are selected
 - For example, if we have a style for `<p>` and a style for `id1`, then the style of `<p id=id1>` will be the style of `id1`

CSS – Style Attributes

- Colors
- Backgrounds
- Borders
- Margins
- Padding
- Height/Width

CSS - Colors

- Colors can be specified as:
 - A color name like 'red', 'lightblue', etc
 - HTML supports 140 standard color names
 - A hex value : #ff0000, #000066, etc.
 - Rgb values
 - 2 hex 'nibbles' per color giving ranges of 0-255 for each
 - An RGB value like: rgb(255,0,0)
 - Same as hex values but with decimal numbers
- Example:
 - `h1 {color:green;}`
 - `p {color: red;}`

CSS – Backgrounds

- Elements can have different backgrounds
 - Colors
 - Images

CSS – Background Color

- Attribute: background-color
- Value: description of colors
 - `h1 {background-color: green;}`
 - `div {background-color: #777700;}`
 - div is just used to divide the page into subsections - no other structural effect on the page

CSS – Background Images

- Attribute: background-image
- Value is usually a URL of a graphic file
- Example:
 - `body {background-image: URL("mountain.jpg")}`
- Images can be positioned within an element
 - Attribute: background-position:
 - Value: (horizontal and vertical positioning (left, center, right, bottom, center, top))
 - Example:
 - `<!--place image starting in the upper right corner of the page's body -->`
 - `body {background-image: URL("mountain.jpg"); background-position: right top}`

CSS – Background Images

- Images can be repeated if too small to cover an area
 - Attribute: background-repeat
 - Values:
 - **repeat-x** – repeat horizontally across area
 - **repeat-y** – repeat vertically down area
 - **no-repeat** – do not repeat image
- Images can scroll with page:
 - background-attachment:scroll
- Can specify all attributes using **'background:'**
 - Values for background must be in this order:
 - background-color
 - background-image
 - background-repeat
 - background-attachment
 - background-position
 - Example:
body {background: URL("mountain.jpg") repeat-x scroll right top}

CSS - Borders

- CSS allows specification of the style, width and color of element borders
- Attributes:
 - **border-style** : style keyword – includes dotted, dashed, solid, double, groove, ridge, inset, outset, none, hidden}
 - One value – Applies to all 4 sides
 - Two values – 1st applies to top and bottom, 2nd applies to left and right
 - Three values – 1st applies to top, 2nd applies to left and right, 3rd applies to bottom
 - Four values – Values applied as top, right, bottom, left
 - **border-width** :
 - Value can be specified in **pt, px, cm, em**
 - Value can use one of 3 keywords: **thin, medium, thick**
 - **border-color**
 - Values: See Colors earlier in this talk

CSS - Borders

- Shorthands:
 - **border-left-style**, **border-right-style**, **border-top-style**, **border-bottom-style**
 - Same for **border-x-width** and **border-x-color**
 - **border**: handles all 3 attributes in order:
 - width
 - style (required)
 - color
 - Example:
 - `h1 {border: 5px solid orange}`

CSS - Borders

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
h2 { border: 10px dashed green;}
```

```
p { border: 5px solid red;}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>The border Property</h2>
```

```
<p>This property is a shorthand property for border-width, border-style, and  
border-color.</p>
```

```
</body>
```

```
</html>
```

The border Property

This property is a shorthand property for border-width, border-style, and border-color.

CSS - Margins

- Attribute: **margin**
- Margin gives spacing outside the ‘border’ of an element
- Similar to **border**, margin has separate attributes for left, top, bottom, and right sides
- Values:
 - **auto** – browser calculates margin
 - A length in px, pt, cm, etc
 - % - margin is a percentage of the width of the containing element
 - **Inherit** – Margin is inherited from parent element
- **margin** can also have 4, 3, 2, or 1 value(s). Application pattern similar to **border**.

CSS – Example: Margin

```
<!DOCTYPE html>
<html>
<head>
<style>
div {
  border: 1px solid black;
  margin: 25px 50px;
  background-color: lightblue;
}
</style>
</head>
<body>
<h2>The margin shorthand property - 2 values</h2>
<div>This div element has a top and bottom margin of 25px, and a right and left margin of 50px.</div>
<hr>
</body>
</html>
```

The margin shorthand property - 2 values

This div element has a top and bottom margin of 25px, and a right and left margin of 50px.

CSS - Padding

- Padding generates space around an element but within its border
- Attributes: padding, padding-left, padding-top, padding-bottom, padding-right
- Values:
 - Length — A length value in pt, px, cm, em, etc
 - % - A percentage of the width of the element
 - **inherit** — The padding is inherited from parent element

CSS – Example: Padding

```
<!DOCTYPE html>
<html>
<head>
<style>
div { border: 1px solid black;
      padding: 25px;
      background-color: lightblue; }
</style>
</head>
<body>
<h2>The padding shorthand property - 1 value</h2>
<div>This div element has a top, bottom, left, and right padding of 25px.</div>
</body>
</html>
```

The padding shorthand property - 1 value

This div element has a top, bottom, left, and right padding of 25px.

CSS – Height/Width

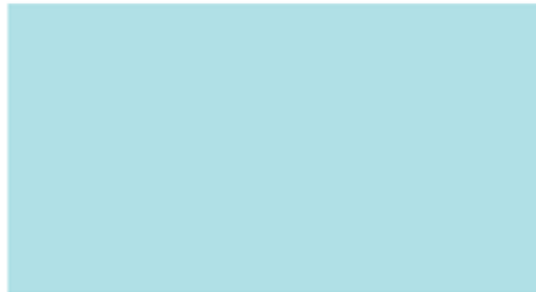
- These attributes give the height and width of an element
- Default value is **auto** which lets the browser figure out the best size
- Values can be specified as:
 - A length – in pt, px, cm, etc.
 - A percentage of the containing block

CSS – Example: Height/Width

```
<!DOCTYPE html>
<html>
<head>
<style>
div { height: 200px;
      width: 50%;
      background-color: powderblue; }
</style>
</head>
<body>
<h2>Set the height and width of an element</h2>
<p>This div element has a height of 200px and a width of 50%:</p>
<div></div>
</body>
</html>
```

Set the height and width of an element

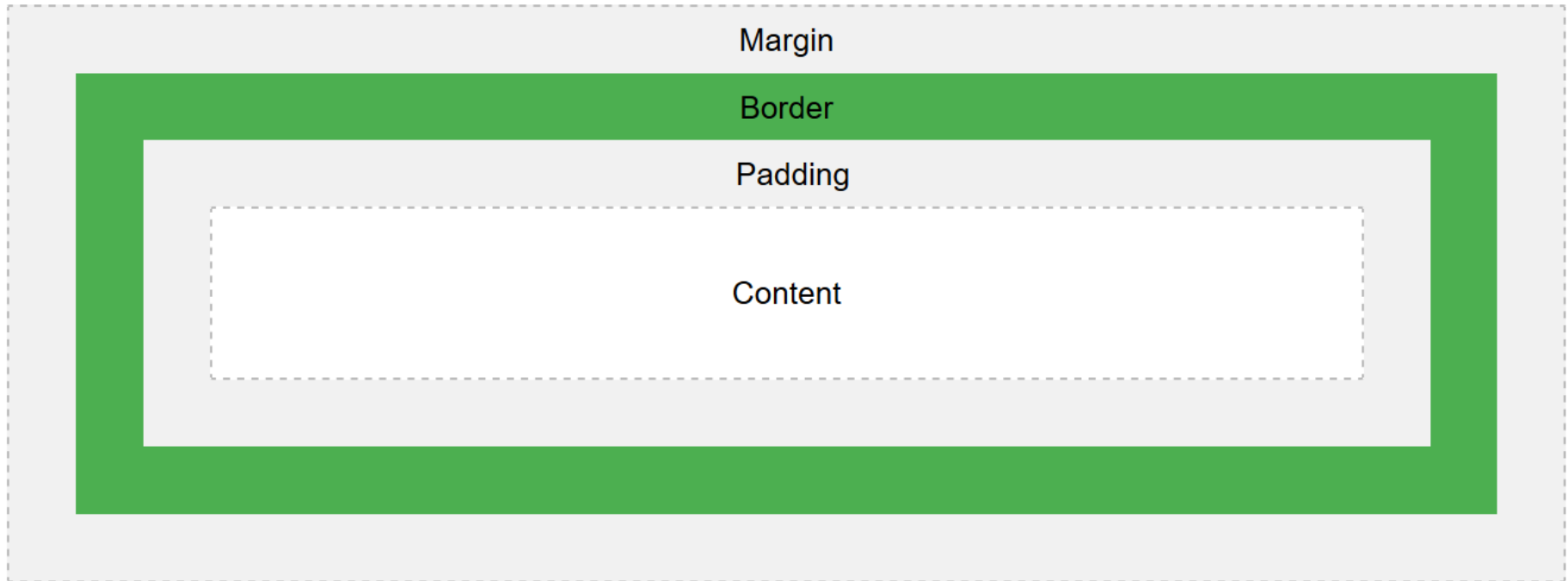
This div element has a height of 200px and a width of 50%:



CSS – The Box Model

- CSS Box Model refers to the layout of an element including margin, borders, padding, and content
 - **Content:** The content of the element
 - **Padding:** area around the content and within the border. Padding is transparent
 - **Border:** A border that surrounds the element and padding
 - **Margin:** Area outside the border. Margin is transparent.

CSS – Box Model



CSS – Example: Box Model

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
div { background-color: lightgrey;
```

```
  width: 300px;
```

```
  border: 15px solid green;
```

```
  padding: 50px;
```

```
  margin: 20px; }
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>Demonstrating the Box Model</h2>
```

```
<p>The CSS box model is essentially a box that wraps around every HTML element. It consists of: borders, padding, margins, and the actual content.</p>
```

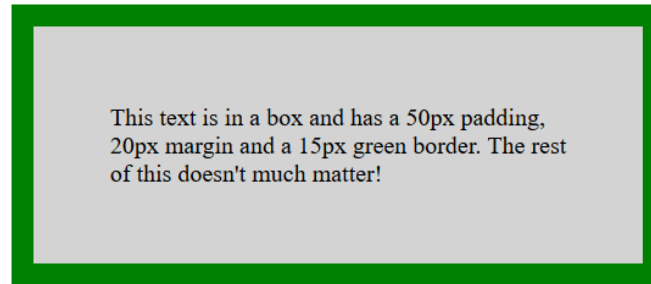
```
<div>This text is in a box and has a 50px padding, 20px margin and a 15px green border. The rest of this doesn't much matter!</div>
```

```
</body>
```

```
</html>
```

Demonstrating the Box Model

The CSS box model is essentially a box that wraps around every HTML element. It consists of: borders, padding, margins, and the actual content.



CSS – Styles for Links

- Links can be styled using any CSS attributes (color, background-color, text-decoration, font-family, font-size, background, etc)
- *Links can have different styling based on their 'state'. 4 states are:*
 - **:link** – An unvisited link
 - **:visited** – A link that has been visited
 - **:hover** – A link when the cursor is hovering over it
 - **:active** – A link when the left mouse button is depressed over it
- *Ordering is important! If all 4 states have styles*
 - **hover** must be after **link** and **visited**
 - **active** must follow **hover**

CSS – Example: Link Styles

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
a:link { text-decoration: none; }
```

```
a:visited { text-decoration: none; color: green; }
```

```
a:hover { text-decoration: underline; color: red; }
```

```
a:active { text-decoration: underline; color: hotpink; }
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<p><b><a href="default.asp" target="_blank">This is a link</a></b></p>
```

```
<p>Misc other text</p>
```

```
</body>
```

```
</html>
```

When left button depressed on link

This is a link

Just some other text. Doesn't much matter.

After visiting link

This is a link

Just some other text. Doesn't much matter.

CSS – Styles for Lists

- *Unordered list: list-style-type*
 - Circle
 - Square
 - Disc
- *Ordered list: list-style-type*
 - Upper-roman
 - Lower-roman
 - Upper-alpha
 - Lower-alpha
 - Other: https://www.w3schools.com/cssref/pr_list-style-type.asp

CSS – Styles for Lists

- *Attribute: list-style-position (shorthand attribute: list-style)*
 - Inside – bullet or marker is pulled in with text (so inside border)
 - Outside – bullet or marker is left outside element's border (out-hanging)

CSS – Example: Styles for Lists

```
<!DOCTYPE html>
<html>
<head>
<style>
li {border: solid;}
ul.a { list-style-position: outside; background: #ff9999; }
ul.b { list-style-position: inside; background: #9999ff; }
</style>
</head>
<body>
<h1>The list-style-position Property</h1>
<h2>list-style-position: outside (default):</h2>
<ul class="a">
  <li>Coffee - A brewed drink</li>
  <li>Tea - An aromatic beverage </li>
  <li>Coca Cola - A carbonated soft drink</li>
</ul>
<h2>list-style-position: inside:</h2>
<ul class="b">
  <li>Coffee - A brewed drink</li>
  <li>Tea - An aromatic beverage </li>
  <li>Coca Cola - A carbonated soft drink</li>
</ul>
</body>
</html>
```

The list-style-position Property

list-style-position: outside (default):

- Coffee - A brewed drink
- Tea - An aromatic beverage
- Coca Cola - A carbonated soft drink

list-style-position: inside:

- Coffee - A brewed drink
- Tea - An aromatic beverage
- Coca Cola - A carbonated soft drink

CSS – Styles for Tables

- Various table elements can take on properties like border, padding, text-align, width, height and others
 - border
 - width
 - text-align
 - border-collapse

border-collapse: separate (default):

Firstname	Lastname
Peter	Griffin
Lois	Griffin

border-collapse: collapse:

Firstname	Lastname
Peter	Griffin
Lois	Griffin

CSS – Example: Table Styling

```
<!DOCTYPE html>
<html>
<head>
<style>
table, td, th {
  border: 1px solid black;
}
table {
  border-collapse: collapse;
  width: 100%;
}
th {
  text-align: center;
}
</style>
</head>
<body>
<h2>The text-align Property</h2>
<p>This property sets the horizontal alignment (like left,
right, or center) of the content in th or td:</p>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Savings</th>
  </tr>
```

```
<tr>
  <td>Peter</td>
  <td>Griffin</td>
  <td>$100</td>
</tr>
<tr>
  <td>Lois</td>
  <td>Griffin</td>
  <td>$150</td>
</tr>
<tr>
  <td>Joe</td>
  <td>Swanson</td>
  <td>$300</td>
</tr>
<tr>
  <td>Cleveland</td>
  <td>Brown</td>
  <td>$250</td>
</tr>
</table>
</body>
</html>
```

The text-align Property

This property sets the horizontal alignment (like left, right, or center) of the content in th or td:

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

Summary

- **HTML** – Hyper Text Markup Language
 - Used to describe most web page content
 - Static – no ‘execution’ semantics
- **CSS** – *Cascading Style Sheets*
 - Help customize look and feel of web pages
 - Numerous ways to address elements and groups of elements
 - Varied properties to produce rich styling
- *Next Lecture:*
 - JavaScript