

# HTML Programming Basic Skills (2)

Wen-Hsiang Lu (盧文祥)

Department of Computer Science and Information Engineering,  
National Cheng Kung University

2014/09/30

# Hyperlink Tag (1)

- A hyperlink (or link) is a word, group of words, or image that you can click on to jump to a new document or a new section within the current document.
- Syntax: `<a href="URL">...</a>`
- The `<a>` tag can be used in two ways:
  - Create a **link** to another document, by using the **href attribute**
  - Create a **bookmark** inside a document, by using the **name attribute**
- Legal URL formats: **[scheme]://[host]:[port]/[path]/[filename]**
  - `http://myweb.ncku.edu.tw:80/wap/HTML/part7-1.htm`
  - `mailto:whlu@main.ncku.edu.tw`
  - `ftp://wmmks.csie.ncku.edu.tw/`
- [Example] [part7-1.htm](#)

# Hyperlink Tag (2)

- Hyperlink to a specific position inside a webpage
  - `<a href="#destination">...</a>`
  - Name tag: `<a name="destination">...</a>`
  - [Example] [part7-1.htm](#)
- Hyperlink's color settings
  - `<body link="red" vlink="green" alink="yellow">...</body>`
  - link: Hyperlink's color before browsing
  - vlink: Hyperlink's color after browsing
  - alink: Hyperlink text's color when clicked by the mouse
  - [Example] [part7-2.htm](#)

# Image Tag (1)

- ``
  - Types of image file: \*.gif , \*.jpg , \* .png
- `<img border="3">`
- `<img alt="Description text">`
- `<img height="120" width="690">`
- `<img align="top">` [middle, bottom, left, right]
- [Example] [part8-1.htm](#)

# Image Tag (2)

- Integration of an image and a hyperlink
  - `<a href="http://wmmks.csie.ncku.edu.tw/">  </a>`
- Integration of an image and several hyperlinks

```

<map name="planetmap">
  <area shape="rect" coords="0,0,82,126" alt="Sun" href="sun.htm" />
  <area shape="circle" coords="90,58,3" alt="Mercury" href="mercur.htm" />
  <area shape="circle" coords="124,58,8" alt="Venus" href="venus.htm" />
</map>
```

- Note: attribute `shape="poly"` `coords="x1, y1, ..., xn, yn"`  
(n vertices coordinates)
- [Example] <part8-1.htm>

# Images Tag (3)

- Image split and integration
  - Big images have slow transmission.
  - Big images are divided into several small images , and then show small images slowly.
  - The attributes border, cellspacing, and cellpadding should be set to 0.

# Frame Design (1)

- Set the URL of a page to show in a frame
- Use <frameset> and <frame> tags

```
<frameset rows="50%,50%">  
  <frame src="part6-1.htm">  
  <frame src="part7-1.htm">  
</frameset>
```

– [Example] [part9-1.htm](#)

```
<frameset cols="20%,*">  
  <frame src="part6-1.htm">  
  <frame src="part7-1.htm">  
</frameset>
```

– [Example] [part9-2.htm](#)

# Frame Design (2)

- border width
  - `<frameset border="10">`
- margins
  - `<frame src="part9-1.htm" marginwidth="30" marginheight="30">`
- frame resizing
  - `<frame src="part9-1.htm" noresize>`
- scrollbars
  - `<frame src="part9-1.htm" scrolling="auto">` [yes, no]
- [Example] [part9-2.htm](#)



# Frame Design (3)

- Nested frame

```
<frameset rows="10%,*">  
  <frame src="part8-1.htm" name="main">  
  <frameset cols="30%,*">  
    <frame src="part9-3-links.htm" name="links">  
    <frame src="part6-1.htm" name="display">  
  </frameset>  
</frameset>
```

- Target attributes

- Frame name : [Ex] target="display"
- Reserved Keywords : \_new (\_blank), \_self , \_parent, \_top  
[Ex] target="\_self"

- [Example] [part9-3.htm](#)

# Frame Design (4)

- An `<iframe>` is used to display a web page within a web page
  - `<iframe src="URL frameborder="1">`
  - `<iframe height="300" width="400">`

```
<iframe src="http://www.ncku.edu.tw" name="display" width="400" height="300"
frameborder="1">
</iframe>
<p>
<a href="http://www.ncku.edu.tw" target="display">NCKU</a>
<a href="http://www.csie.ncku.edu.tw" target="display">NCKU CSIE</a>
</p>
```

- [Example] [part9-4.htm](#)

# CSS (Cascading Style Sheet)

- Styles define how to display HTML tags (elements)
- When a browser reads a style sheet, it will format the document according to it.
- Complement the shortage of HTML's styles
- Use <style> tag and “type” attribute
  - `<style type="text/css">`
- CSS reference:
  - <http://www.w3schools.com/css/default.asp>
  - <http://css.1keydata.com/tw/syntax.php>

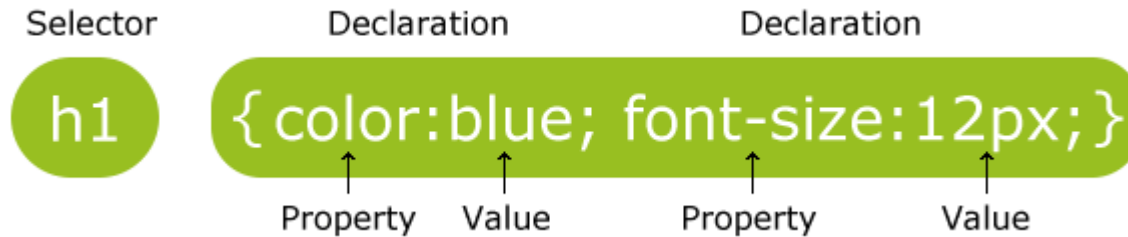
# Three Ways to Insert CSS

- There are three ways of inserting a style sheet:

External style sheet	<pre>&lt;head&gt; &lt;link rel="stylesheet" type="text/css" href="mystyle.css" /&gt; &lt;/head&gt;</pre>
Internal style sheet	<pre>&lt;head&gt; &lt;style type="text/css"&gt;   p {color:blue;}   body {background-image:url("images/back40.gif");} &lt;/style&gt; &lt;/head&gt;</pre>
Inline style	<pre>&lt;p style="color:blue;margin-left:20px"&gt; This is a paragraph. &lt;p&gt;</pre>

# CSS Syntax

- A CSS rule has two main parts: a **selector**, and one or more **declarations**:



- The selector is normally the **HTML element (tag)** you want to style.
- Each declaration consists of a **property** and a **value**.
- The property is the **style attribute** you want to change. Each property has a value.

# CSS Tag Example (1)

```
<head>
<title> Set the attributes and values to tags directly </title>
<style type="text/css">
  h1{color:blue; font-size:50}
  p {color:green; font-size:30}
</style>
</head>

<body>
<h1> Redefine the style of "h1" tag</h1>
<p> Redefine the style of "p" tag
</body>
```

- [Example] [part10-1.htm](#)

# Three Types of Selectors

- The **selector** is normally the **HTML tag (element)** you want to style.
  - `h1{color:blue;font-size:50}`
- CSS also allows you to specify **your own selectors** called **"id"** and **"class"**.

# The id Selector

- The id selector is used to specify a style for a **single, unique element**.
- The id selector uses the id attribute of the HTML element, and is defined with a "#".
- The style rule below will be applied to the element with id="para1":
- Example
  - **#para1** {text-align:center; color:red;}



# CSS Tag Example (2)

```
<head>
<title> Use id attributes to set tag styles </title>
<style type="text/css">
  #b1{color:blue;font-size:50}
  #g1{color:green;font-size:30}
</style>
</head>
<body>
<h1 id="b1"> Use id to assign the b1 style of h1 tag </h1>
<h2 id="g1"> Use id to assign the g1 style of h2 tag </h2>
<h1 id="g1"> Use id to assign the g1 style of h1 tag </h1>
<p id="b1"> Use id to assign the b1 style of p tag
</body>
```

- [Example] [part10-2.htm](#)

# The class Selector

- The class selector is used to specify a style for a group of elements. Unlike the id selector, the class selector is most often used on several elements.
- This allows you to set a particular style for many HTML elements with the same class.
- The class selector uses the HTML class attribute, and is defined with a "."

# CSS Tag Example (3)

```
<head>
<title> Use class attributes to set tag styles </title>
<style type="text/css">
  .b1{color:blue;font-size:10}
  .g1{color:green;font-size:15}
</style>
</head>
<body>
<table border="1" width="600">
<tr> <th class="b1"> Use class to assign the b1 style  to "th" tag</th>
      <td class="g1"> Use class to assign the g1 style  to "td" tag </td>
</tr>
<tr> <th class="g1"> Use class to assign the g1 style  to "th" tag</th>
      <td class="b1"> Use class to assign the b1 style  to "td" tag </td>
</tr>
</body>
```

- [Example] [part10-3.htm](#)

# <div> & <span> Tags

- The <span> and <div> tags are very useful when dealing with **Cascading Style Sheets**.
- The <div> tag defines **logical divisions** (defined) in your Web page. It acts a lot like **a paragraph tag**, but it divides the page up into **larger sections**.
- The <span> tag has very similar properties to the <div> tag, in that it changes the style of the text it encloses.
  - The <span> tag is an **inline-level** element.
  - The <span> tag can only contain other inline elements like abbr, strong, or tt.
  - The <span> tag can be inside <p> tags or <div> tags.

# Usage: `<div>` & `<span>` Tags

- Practical usage
  - The primary attributes of the `<div>` and `<span>` tags
    - `style`, `class`, and `id`
    - `<div style="text-align: center;">`
    - `<span style="color : #f00;">2ndWord</span>`
  - When they are labeled with `class` or `id` attributes, `span` and `div` elements can denote types of information otherwise indescribable with HTML.
    - `<div id="byline">Fred Smith</div>` may be used to indicate the **author's name** in a document
    - `<span class="date">10th Feb 2010</span>` may be used specifically to indicate **a date**

# Difference: <div> & <span> Tags

- People tend to use the two tags in a similar fashion, but they serve different purposes.
  - In standard HTML, a **div** is a **block-level** element whereas a **span** is an **inline** element. The div block visually isolates **a section of a document** on the page, in the same way as **a paragraph**. The span element contains a piece of information inline with the surrounding text.
  - The primary difference between the <span> and <div> tags is that <span> doesn't do any formatting of it's own. The <div> tag acts includes a **paragraph break**, because it is defining a logical division in the document. The <span> tag simply tells the browser to apply the style rules to whatever is within the <span>.