

COMPSCI 111 / 111G

*Mastering Cyberspace:
An introduction to practical computing*

XHTML and CSS

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Slides: Andrew Luxton-Reilly

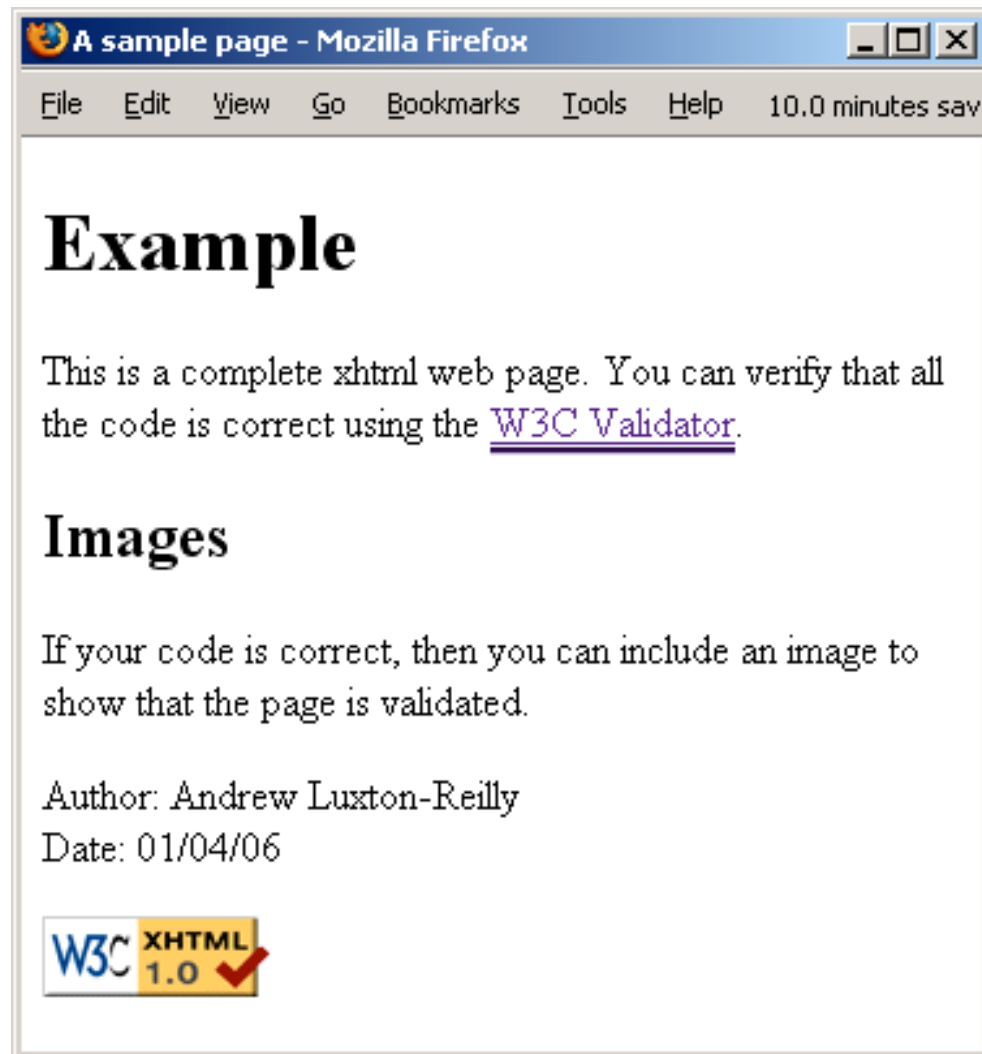
Example

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE html PUBLIC
"-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<html>
<head>
<title>A sample page</title>
</head>
<body>
<h1>Example</h1>
<p>This is a complete xhtml web page. You can verify that all the code is
correct using the <a href="http://validator.w3.org">W3C Validator</a>.</p>
<h2>Images</h2>
<p>If your code is correct, then you can include an image to show that the
page is validated.</p>

<p>
Author: Andrew Luxton-Reilly<br></br>
Date: 01/04/06<br></br>
</p>
<p></img></p>
</body>
</html>
```

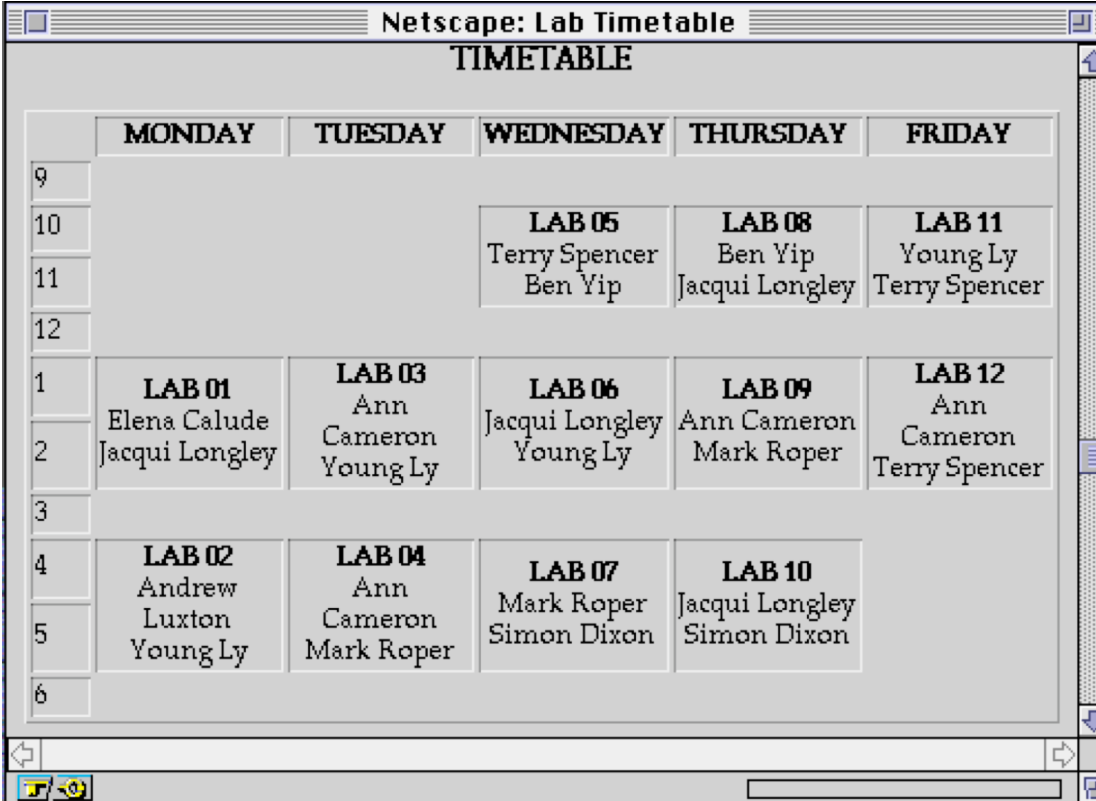
Example page



Tables

<table>

- Used to format tables of information
- By default, there are no borders shown



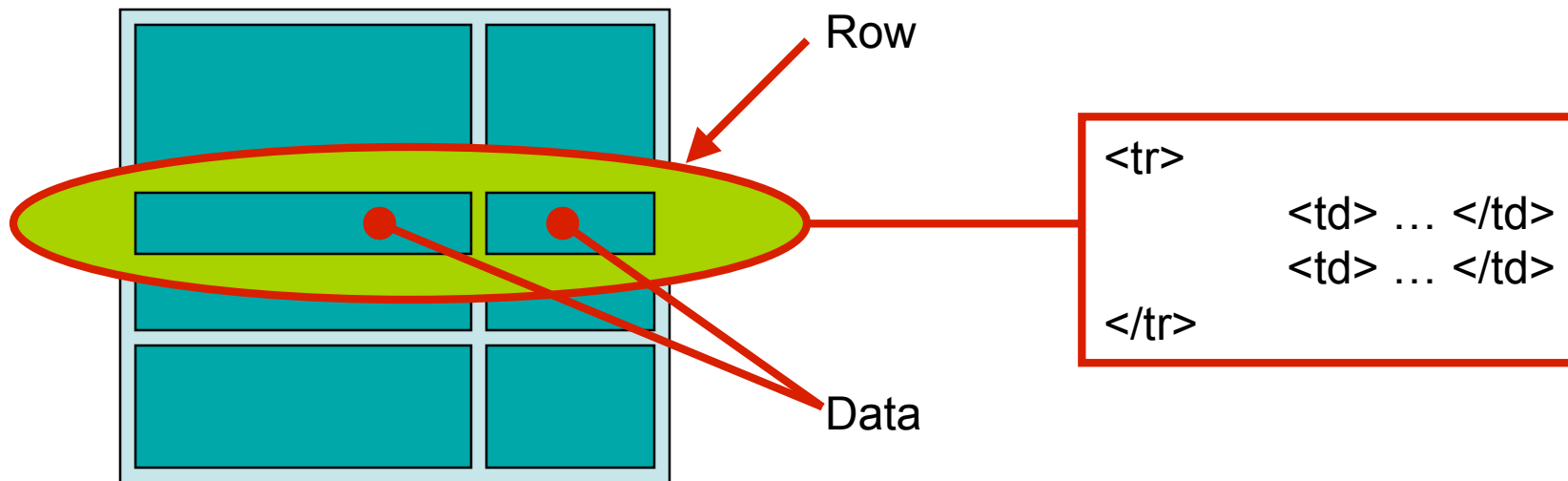
The screenshot shows a Netscape browser window titled "Netscape: Lab Timetable". The main content is a table titled "TIMETABLE" with columns for the days of the week (Monday to Friday) and rows for time slots (9, 10, 11, 12, 1, 2, 3, 4, 5, 6). The table contains information about lab sessions, including lab numbers and the names of the lab instructors.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9					
10			LAB 05 Terry Spencer Ben Yip	LAB 08 Ben Yip Jacqui Longley	LAB 11 Young Ly Terry Spencer
11					
12					
1	LAB 01 Elena Calude Jacqui Longley	LAB 03 Ann Cameron Young Ly	LAB 06 Jacqui Longley Young Ly	LAB 09 Ann Cameron Mark Roper	LAB 12 Ann Cameron Terry Spencer
2					
3					
4	LAB 02 Andrew Luxton Young Ly	LAB 04 Ann Cameron Mark Roper	LAB 07 Mark Roper Simon Dixon	LAB 10 Jacqui Longley Simon Dixon	
5					
6					

Tags required to format Tables

Tags

- `<table> ... </table>` Surrounds the entire table
- `<tr> ... </tr>` Identifies a row in the table
- `<td> ... </td>` Each element/cell of data in the row

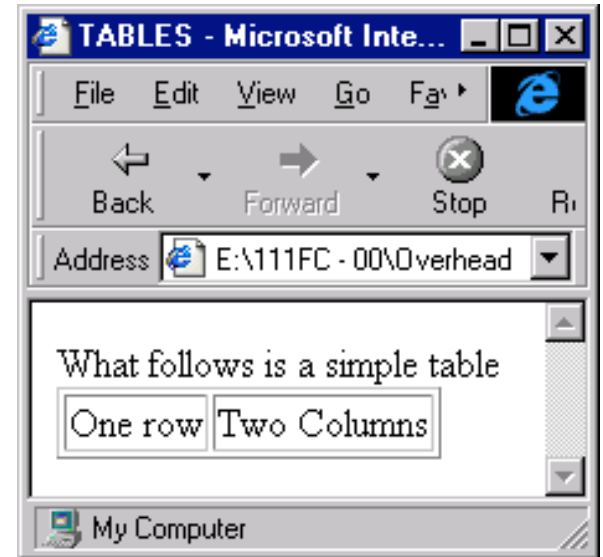


A simple table example

```
<html>
  <head>
    <title>TABLES</title>
  </head>
  <body>
    <p>What follows is a simple table</p>

    <table>
      <tr>
        <td>One row</td><td>Two Columns</td>
      </tr>
    </table>

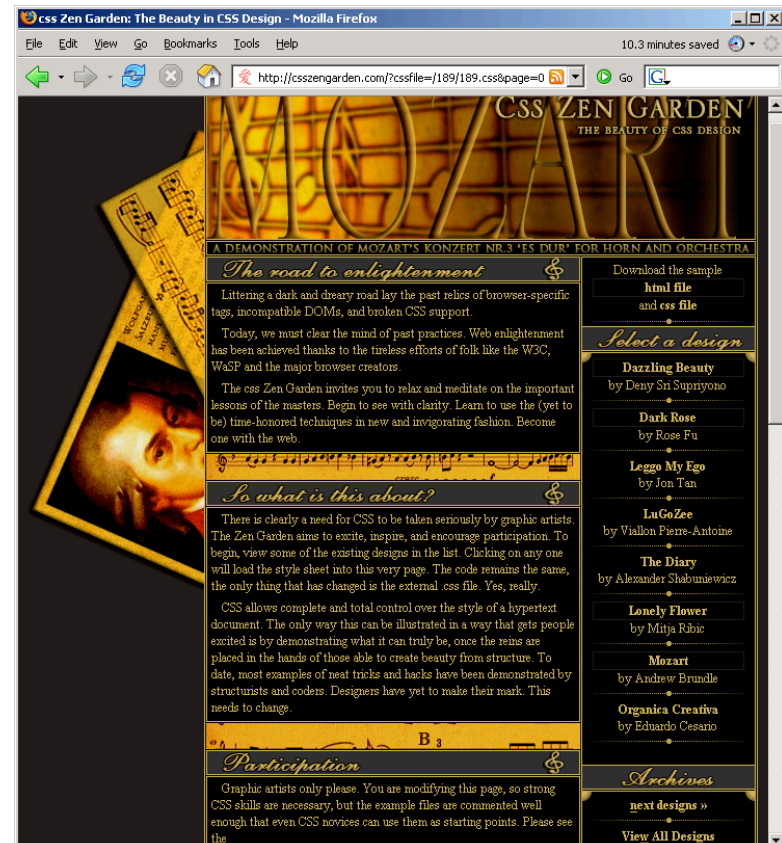
  </body>
</html>
```



Styles

A style changes the way the HTML code is displayed

- Same page displayed using different styles



<http://csszengarden.com>

Defining a style

Styles are defined using rules

- Selector – determines what the rule applies to
- Property – the thing that will be changed
- Value – the value that will be used

Property **Value**

h1 { **color**: **green**; }

Selector

The diagram shows a CSS rule: `h1 { color: green; }`. Red lines and text labels identify the parts of the rule. A vertical line with a horizontal bar at the top points from the word "Selector" below to the "h1" in the rule. Another vertical line with a horizontal bar at the top points from the word "Property" above to the "color:" in the rule. A third vertical line with a horizontal bar at the top points from the word "Value" above to the "green;" in the rule.

Grouping rules

Multiple tags that use the same rule

- `h1 { font-weight: bold }`
- `h2 { font-weight: bold }`

Same style defined for multiple selectors

- `h1, h2 { font-weight: bold }`

Grouping rules

Same tag using multiple rules

- `h1 { color: green }`
- `h1 { text-align: center }`

Apply multiple properties to the same selector

- `h1 {`
- `color: green;`
- `text-align: center;`
- `}`

Class selectors

Sometimes want to apply a style to specified tags

- Most paragraphs are normal
- Some paragraphs are quotes

Define a style that can be applied to a group of tags

- Class selector

```
.className { property: value; }
```

In XHTML source code

- Assign the tag to the class
- Use an attribute

```
<tag class="className"> ... </tag>
```

Example – class selector

Style defined as follows:

```
.quote
{
    text-align: center;
    font-style: italic;
}
```

Xhtml source code uses the style as follows:

```
<p class="quote">
Let's face it, the average computer user has
the brain of a Spider Monkey --- Bill Gates
</p>
```

Id selectors

Sometimes want to apply a style to a single tag

- E.g. Defining a special heading

Define a style that can be applied to a single tag

- Id selector

```
#idName { property: value; }
```

In XHTML source code

- Use an attribute to specify the id used for the tag

```
<tag id="idName"> ... </tag>
```

Example – id selector

Style defined as follows:

```
#footer
{
    text-align: center;
    font-style: italic;
}
```

Xhtml source code uses the style as follows:

```
<p id="footer">
Copyright 2006
</p>
```

Location of the styles

Three possible locations

- External
- Internal
- Inline

External Style Sheet

Styles are defined in a file

- Used when styles apply to more than one web page
- Entire site has a consistent visual theme

```
.quote { text-align: center; }  
h1 { color: green; }
```



Saved in a file
called theme.css

Web page must be told where to find the style sheet

- Use the following code

```
<head>  
<title> ... </title>  
<link rel="stylesheet" href="theme.css" type="text/css"></link>  
</head>
```


Internal Style Sheet

Styles are defined in the head of the page

- Used when styles apply to only the one web page
- Keeps all the visual formatting located in the same place

`<style>`

- Used in the head of the document to contain styles

```
<head>
<title>Example</title>

<style>
.quote { text-align: center; }

h1 { color: green; }
</style>

</head>
```

Inline styles

Styles are defined in the tag

- Used when style is applied only to that tag
- Can be required to override styles
- Rarely used (*why would you?*)

```
<p style="text-align: center;">  
This paragraph will be centred using  
an inline style.  
</p>
```

Cascading Style Sheets

CSS 1.0 / 2.0

- Support different properties
- No browser is currently CSS 2.0 compliant
- Internet Explorer is currently the least compliant browser

Order to apply styles

1. Browser Default
2. External Style
3. Internal Style
4. Inline Style



Increasing priority

http://en.wikipedia.org/wiki/Cascading_Style_Sheets

<div> and

Two additional tags used with CSS

- Allow a style to be applied to arbitrary group of elements

<div>

- Block-level tag
- May contain other block-level tags
- Invisible in XHTML, but can have styles applied

- Inline tag
- May contain other inline tags
- Invisible in XHTML, but can have styles applied

Examples

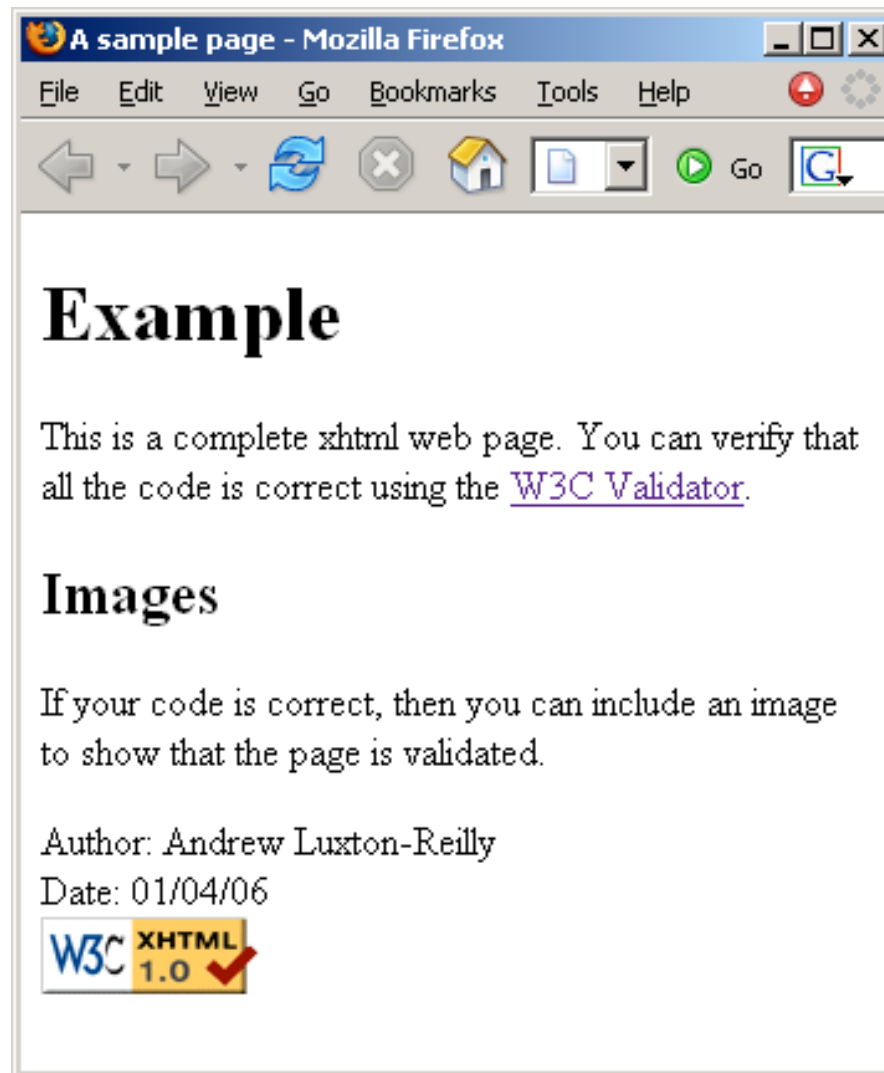
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<!DOCTYPE html PUBLIC
"-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<html>
<head>
<title>A sample page</title>
<link rel="stylesheet" href="theme.css" type="text/css"></link>
</head>

<body>
<h1>Example</h1>
<p>This is a complete xhtml web page. You can verify that all the code is
correct using the <a href="http://validator.w3.org">W3C Validator</a>.</p>
<h2>Images</h2>
<p>If your code is correct, then you can include an image to show that the
page is validated.</p>

<p class="footer">
<span class="catName">Author:</span> Andrew Luxton-Reilly<br></br>
<span class="catName">Date:</span> 01/04/06<br></br>
</img>
</p>
</body>
</html>
```

No CSS



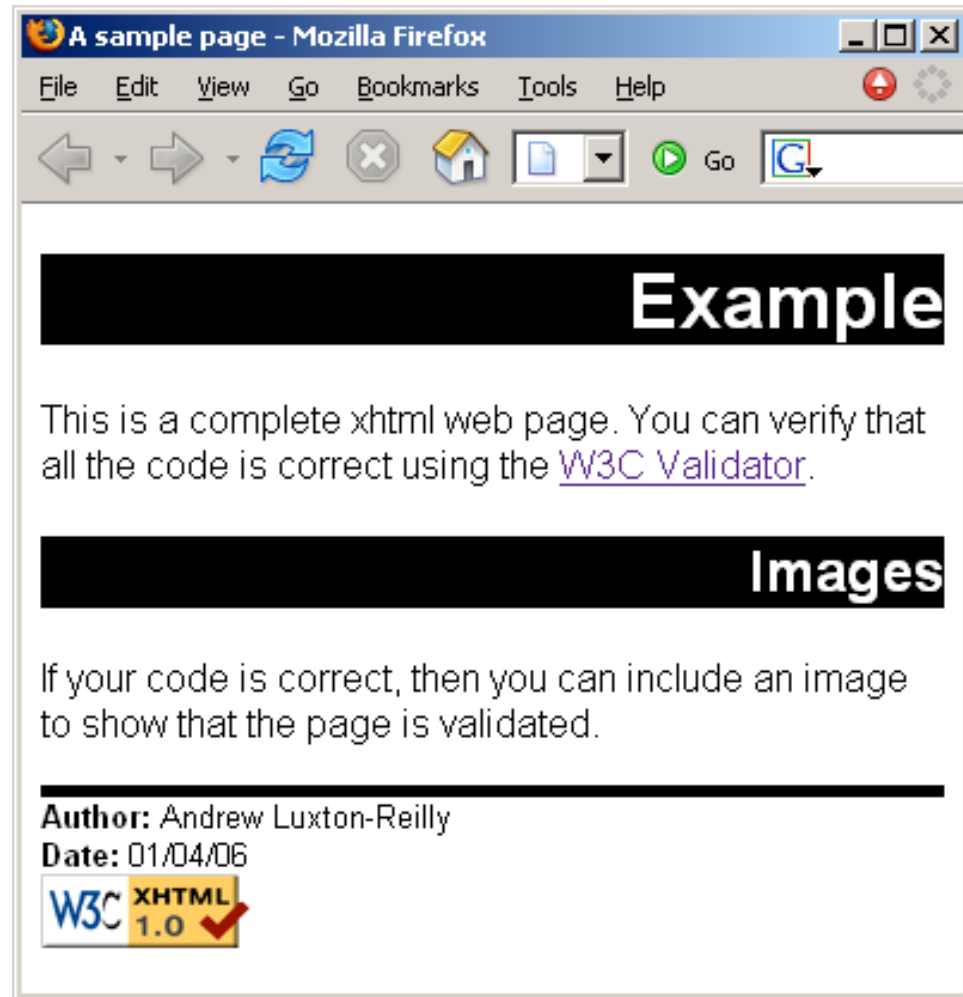
Same page with a style sheet

```
body
{
font-family: sans-serif;
}

h1, h2
{
text-align: right;
background-color: black;
color: white;
}

.footer
{
border-top-width: thick;
border-top-style: solid;
font-size: small;
}

.catName
{
font-weight: bold;
}
```



Same page, different style sheet

```
body { background-color: #eeffee; }

h1, h2
{
text-align: center;
border-bottom-color: black;
border-bottom-style: solid;
color: black;
text-transform: uppercase;
}

p:first-letter
{
font-size: x-large;
}

.footer
{
text-align: right;
font-size: small;
}

.catName { visibility: hidden; }
```

