

Chapter 8: Extra Markup

Introduction

This chapter focuses on helpful topics that do not easily fit into groups. You will learn about:

- The different versions of HTML and how to indicate which version you are using
- How to add comments to your code
- Global attributes, including the `id` and `class` attributes
- Elements used to group parts of the page where no other element is suitable
- How to embed a page within a page using iframes
- How to add information about the web page using the `<meta>` element
- Adding characters such as angled brackets and copyright symbols

The Evolution of HTML

Since the web was created, there have been several versions of HTML, each designed to improve upon the last by adding new elements and attributes while removing outdated code.

- **HTML 4 (Released 1997):**
 - Included presentational elements like `<center>`, ``, and `<strike>`, which are now deprecated in favor of CSS.
 - Most elements in this book (except some HTML5 additions) were available in HTML 4.
- **XHTML 1.0 (Released 2000):**
 - Reformulated HTML 4 to follow XML rules, enforcing stricter syntax:
 - * Every element needed a closing tag (except empty elements like ``).
 - * Attribute names in lowercase.
 - * All attributes required a value, in double quotes.
 - * Deprecated elements were discouraged.
 - * Nested elements had to be properly closed.
 - Benefits included compatibility with XML-based formats like SVG, MathML, and CML.
 - Variants:
 - * **Strict XHTML 1.0:** Required strict adherence to rules.
 - * **Transitional XHTML 1.0:** Allowed use of deprecated presentational elements.
 - * **XHTML 1.0 Frameset:** Supported partitioning a browser window into frames (now rarely used).
- **HTML5 (Released 2000, Ongoing Development):**
 - Relaxes some XHTML strictness (e.g., not all tags need closing).
 - Introduces new elements and attributes, many already implemented by major browsers.

- Safe to use new features if fallback content ensures older browsers can still view pages.

DOCTYPES

A DOCTYPE declaration at the start of a web page tells browsers which HTML version is used, aiding correct rendering. Examples include:

- **HTML5:**

```
<!DOCTYPE html>
```

- **HTML 4 Transitional:**

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "
http://www.w3.org/TR/html4/loose.dtd">
```

- **Transitional XHTML 1.0:**

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

- **Strict XHTML 1.0:**

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

- **XML Declaration** (Optional for XHTML):

```
<?xml version="1.0"?>
```

Must be the first line, with no preceding content.

Comments in HTML

Comments are added between `<!--` and `-->` markers to document code without affecting the page display. They are useful for:

- Marking sections of code (e.g., start/end of introduction).
- Temporarily disabling code for testing.

```
<!-- start of introduction -->
<h1>Current Exhibitions</h1>
<h2>Olafur Eliasson</h2>
<!-- end of introduction -->
<!-- start of main text -->
<p>Olafur Eliasson was born in Copenhagen, Denmark in 1967 to Icelandic
  parents.</p>
<p>He is known for sculptures and large-scale installation art
  employing elemental materials such as light, water, and air
  temperature to enhance the viewer's experience.</p>
<!-- end of main text -->
<!--
  <a href="mailto:info@example.org">Contact</a>
-->
<a href="mailto:info@example.org">Contact</a>
```

ID Attribute

The `id` attribute uniquely identifies an element on a page, with a value starting with a letter or underscore (not a number). No two elements on the same page should share the same `id`.

- Used in CSS to style specific elements uniquely.
- Used in JavaScript to interact with specific elements.
- A global attribute, applicable to any HTML element.

```
<p>Water and air. So very commonplace are these substances, they hardly  
attract attention - and yet they vouchsafe our very existence.</p>  
<p id="pullquote">EVERY TIME I VIEW THE SEA I FEEL A CALMING SENSE OF  
SECURITY, AS IF VISITING MY ANCESTRAL HOME; I EMBARK ON A VOYAGE OF  
SEEING.</p>  
<p>Mystery of mysteries, water and air are right there before us in the  
sea.</p>
```

CSS can make the `pullquote` paragraph uppercase.

Class Attribute

The `class` attribute identifies multiple elements as belonging to the same group, with values describing the group. Multiple classes can be applied to an element, separated by spaces.

- Used in CSS to apply styles to all elements with a specific class.
- A global attribute, applicable to any HTML element.

```
<p class="important">For a one-year period from November 2010, the  
Marugame Genichiro-Inokuma Museum of Contemporary Art (MIMOCA) will  
host a cycle of four Hiroshi Sugimoto exhibitions.</p>  
<p>Each will showcase works by the artist thematically contextualized  
under the headings "Science," "Architecture," "History" and "  
Religion" so as to present a comprehensive panorama of the artist's  
oeuvre.</p>  
<p class="important admittance">Hours: 10:00 - 18:00 (No admittance  
after 17:30)</p>
```

CSS can make `important` elements uppercase and `admittance` elements red.

Block Elements

Block-level elements start on a new line in the browser. Examples include `<h1>`, `<p>`, ``, and ``.

```
<h1>Hiroshi Sugimoto</h1>  
<p>The dates for the ORIGIN OF ART exhibition are as follows:</p>  
<ul>  
  <li>Science: 21 Nov - 20 Feb 2010/11</li>  
  <li>Architecture: 6 Mar - 15 May 2011</li>  
  <li>History: 29 May - 21 Aug 2011</li>  
  <li>Religion: 28 Aug - 6 Nov 2011</li>  
</ul>
```

Inline Elements

Inline elements continue on the same line as their neighbors. Examples include `<a>`, ``, ``, and ``.

```
<p>Timed to a single revolution of the planet around the sun at a 23.4
degrees tilt that plays out the rhythm of the seasons, this <em>
Origins of Art</em> cycle is organized around four themes: <b>
science, architecture, history</b> and <b>religion</b>.</p>
```

Grouping Text & Elements in a Block

The `<div>` element groups elements into a block-level box, starting on a new line. It has no visual effect unless styled with CSS using `id` or `class` attributes.

- Useful for organizing sections like headers or comments.
- Comments after closing `</div>` tags clarify structure.

```
<div id="header">
  
  <ul>
    <li><a href="index.html">Home</a></li>
    <li><a href="biography.html">Biography</a></li>
    <li><a href="works.html">Works</a></li>
    <li><a href="contact.html">Contact</a></li>
  </ul>
</div><!-- end of header -->
```

Grouping Text & Elements Inline

The `` element is an inline equivalent of `<div>`, used to:

- Mark text with no other suitable element.
- Group inline elements for CSS styling.

```
<p>Anish Kapoor won the Turner Prize in 1991 and exhibited at the <span
class="gallery">Tate Modern</span> gallery in London in 2003.</p>
```

Iframes

The `<iframe>` element embeds another HTML page within a page, like a window. Common uses include embedding Google Maps.

- **Attributes:**
 - `src`: URL of the page to display.
 - `height, width`: Size in pixels.
 - `frameborder` (HTML 4/XHTML): 0 (no border) or 1 (border). Not supported in HTML5.
 - `scrolling` (HTML 4/XHTML): `yes`, `no`, or `auto`. Not supported in HTML5.
 - `seamless` (HTML5): Removes scrollbars and borders (not widely supported in older browsers).

```
<iframe width="450" height="350" src="http://maps.google.co.uk/maps?q=manhattan+new+york&output=embed"></iframe>
```

```
<iframe src="http://maps.google.co.uk/maps?q=manhattan+new+york&output=embed" width="450" height="350" frameborder="0" scrolling="no"></iframe>
```

Information About Your Pages

The `<meta>` element, placed in the `<head>`, provides metadata about the page, invisible to users but used by search engines and browsers.

- **Common Attributes:**

- **name and content:**

- * **description:** Page summary (max 155 characters) for search engines.
 - * **keywords:** Comma-separated search terms (less impactful today).
 - * **robots:** `noindex` (exclude from search results) or `nofollow` (exclude linked pages).

- **http-equiv and content:**

- * **author:** Specifies the page author.
 - * **pragma:** Prevents browser caching (`no-cache`).
 - * **expires:** Sets page expiration date (e.g., `Fri, 04 Apr 2014 23:59:59 GMT`).

```
<!DOCTYPE html>
<html>
  <head>
    <title>Information About Your Pages</title>
    <meta name="description" content="An Essay on Installation Art" />
    <meta name="keywords" content="installation, art, opinion" />
    <meta name="robots" content="nofollow" />
    <meta http-equiv="author" content="Jon Duckett" />
    <meta http-equiv="pragma" content="no-cache" />
    <meta http-equiv="expires" content="Fri, 04 Apr 2014 23:59:59 GMT" />
  </head>
  <body>
  </body>
</html>
```

Escape Characters

HTML reserves characters like `<`, `>`, and `&`, requiring escape codes to display them. Special symbols (e.g., copyright, currency) also use escape codes.

- **Examples:**

- `<`: `<`; or `<`;
 - `>`: `>`; or `>`;
 - `&`: `&`; or `&`;

Table 1: Escape Codes for Common Symbols

Symbol	Description	Escape Code
<	Less-than sign	< or <
>	Greater-than sign	> or >
&	Ampersand	& or &
"	Quotation mark	" or "
©	Copyright symbol	© or ©
€	Euro sign	€ or €

– ©: © or ©

– €: € or €

Check browser rendering, as some fonts may not support all characters.

Example: Extra Markup

This example uses HTML 4.01 Transitional with metadata, `div` and `span` for grouping, an `iframe` for a Google Map, and a copyright escape code.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://
www.w3.org/TR/html4/loose.dtd">
<html>
  <head>
    <meta name="description" content="Telephone, email and directions
      for The Art Bookshop, London, UK" />
    <title>Contact The Art Bookshop, London UK</title>
  </head>
  <body>
    <div id="header">
      <h1>The Art Bookshop</h1>
      <ul>
        <li><a href="index.html">home</a></li>
        <li><a href="index.html">new publications</a></li>
        <li class="current-page"><a href="index.html">contact</a></li>
      </ul>
    </div><!-- end header -->
    <div id="content">
      <p>Charing Cross Road, London, WC2, UK</p>
      <p><span class="contact">Telephone</span> 0207946 0946</p>
      <p><span class="contact">Email</span> <a href="mailto:
        books@example.com">books@example.com</a></p>
      <iframe width="425" height="275" frameborder="0" scrolling="no"
        marginheight="0" marginwidth="0" src="http://maps.google.co.uk
        /maps?f=q&source=s_q&hl=en&geocode=&q=charing+
        cross+road+london&output=embed"></iframe>
    </div><!-- end content -->
    <p>&copy; The Art Bookshop</p>
  </body>
</html>
```

Summary

- DOCTYPEs specify the HTML version.

- Comments (`<!-- -->`) document code.
- `id` and `class` attributes identify elements.
- `<div>` and `` group block and inline elements.
- `<iframe>` embeds external pages.
- `<meta>` provides page metadata.
- Escape characters display reserved or special symbols.