

## 2. HTML Tutorial I

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# HTML(5) Tutorial

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- ❏ Will teaches you everything about HTML
- ❏ HTML is easy to learn – You will enjoy it
- ❏ Examples in Every Chapter *Try it!*
  - With our online HTML editor, you can edit the HTML, and click on a button to view the result

# HTML Introduction

## What is HTML? *Try it!*

- Markup language for describing web documents (web pages)
- **H**yper **T**ext **M**arkup **L**anguage
- A markup language is a set of markup tags
- HTML documents are described by HTML tags
- Each HTML tag describes different document content

# HTML Introduction (cont'd)

## HTML Tags

- Keywords (tag names) surrounded by angle brackets

`<tagname> content </tagname>`

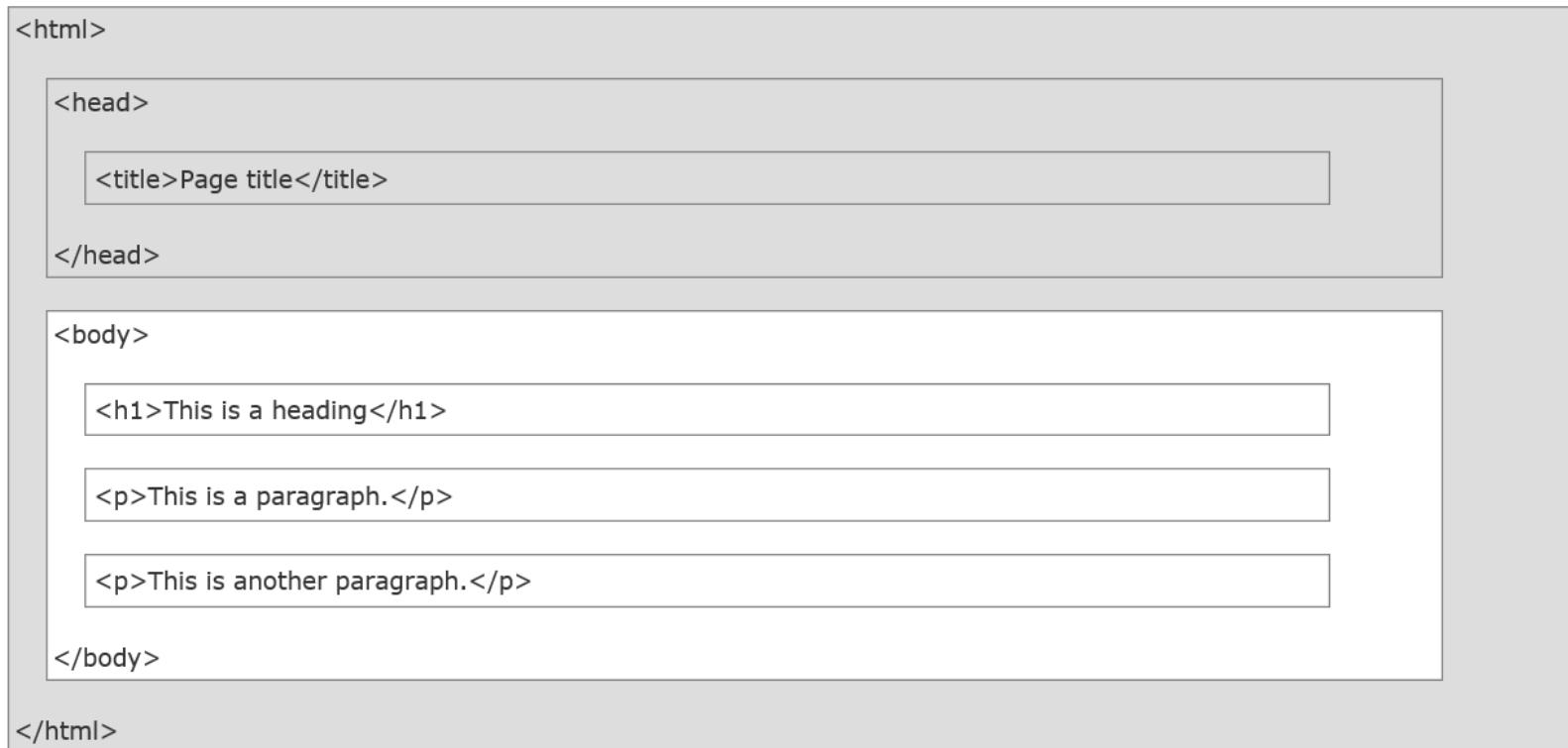
- HTML tags normally come in pairs like `<p>` and `</p>`
- The first tag in a pair is the **start tag**, the second tag is the **end tag**
- The end tag is written like the start tag, but with a **slash** before the tag name

## Web Browsers

- Chrome, IE, Firefox, Safari..
- To read HTML documents and display them
- Not display the HTML tags, but uses them to determine how to display the document

# HTML Introduction (cont'd)

## HTML Page Structure



- Only the `<body>` area (the white area) is displayed by the browser.

# HTML Introduction (cont'd)

## ■ The <!DOCTYPE> Declaration

- Helps the browser to display a web page correctly
  - To display a document correctly, the browser must know both type and version

- Not case sensitive

- HTML5

```
<!DOCTYPE html>
```

- HTML4.01

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

- XHTML 1.0

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

- All tutorials and examples at W3Schools use HTML5

# HTML Introduction (cont'd)

## HTML Versions

Version	Year
HTML	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML5	2014

# 실습 수업을 위한 환경 설정

## ❖ 추천 브라우저

- Chrome 설치 URL

- <http://www.google.co.kr/chrome/browser/desktop/>

## ❖ Notepad를 이용하여 HTML 작성

- 전문적인 HTML 에디터

- Adobe Dreamweaver, Microsoft Expression Web, CoffeeCup HTML Editor

- W3schools에서는 Notepad(PC)와 같은 텍스트 에디터를 추천 *Try it!*

- 단순한 텍스트 에디터를 이용하는 것은 HTML을 배우는 좋은 방법임.

- 설치 URL

- <http://notepad-plus-plus.org/>



# 실습 수업을 위한 환경 설정(cont'd)

## ❖ 브라우저를 위한 사전 플러그인 프로그램

- 수업이나 Codecademy.com 사이트를 이용하여 학습을 할 때, 궁금한 영어 단어의 뜻을 알려주는 사전 프로그램
- Tooltip Dictionary  
<https://chrome.google.com/webstore/detail/tooltip-dictionary-englis/hcidimjcobcnahiceedndikkenbibpop?hl=ko>
- Google Dictionary  
<https://chrome.google.com/webstore/detail/google-dictionary-by-goog/mgijmajocgfcbeboacabfgobmjgjcoja?hl=ko>

## ❖ 각 프로그램의 구체적인 설치 과정

- '웹프로그래밍 수업을 위한 환경 설정 방법'.ppt 참고

# HTML Elements

- Written with a start tag, with an end tag, with the content

**<tagname>** content **</tagname>**

**<p>**My first HTML paragraph.**</p>**

Start tag	Element content	End tag
<h1>	My First Heading	</h1>
<p>	My first paragraph.	</p>

- Nested HTML Elements** *Try it!*

- Elements can contain elements

# HTML Elements (cont'd)

## ❏ Don't Forget the End Tag

- Some HTML elements will display correctly, even if you forget the end tag  
*Try it!*
- Never rely on this. It might produce unexpected results and/or errors if you forget the end tag

## ❏ Empty HTML Elements

- HTML elements with no content
- `<br>` : Empty element without a closing tag
- `<br/>` = `<br></br>` Empty element with a closing tag

## ❏ HTML Tip : Use Lowercase Tags

- HTML5 standard does not require lowercase tags, but W3 recommends lowercase in HTML4, and demands lowercase for stricter document types like XHTML

# HTML Attributes

## HTML Attributes

- HTML elements can have **attributes**
- Attributes provide **additional information** about an element
- Attributes are always specified in **the start tag**
- Attributes come in name/value pairs like : **name="value"**

# HTML Attributes (cont'd)

## The lang Attribute

- Declared in the **<html>** tag
- The language is declared in the **lang** attribute
- Important for accessibility applications (screen readers) and search engines

```
<!DOCTYPE html>
<html lang="en-US">
<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>
</html>
```

# HTML Attributes (cont'd)

## Single or Double Quotes?

- In some situations, when the attribute value itself contains double quotes, it is necessary to use single quotes.

```
<p title='John "ShotGun" Nelson'>
```

or

```
<p title="John 'ShotGun' Nelson">
```

## HTML Attributes

Attribute	Description
alt	Specifies an alternative text for an image
disabled	Specifies that an input element should be disabled
href	Specifies the URL (web address) for a link
id	Specifies a unique id for an element
src	Specifies the URL (web address) for an image
style	Specifies an inline CSS style for an element
title	Specifies extra information about an element (displayed as a tool tip)
value	Specifies the value (text content) for an input element.

# HTML Headings

## ❖ Headings are defined with the <h1> to <h6> tags. *Try it!*

- <h1> defines the most important heading.
- <h6> defines the least important heading.

## ❖ Headings Are Important

- Use HTML headings for headings only. Don't use headings to make text **BIG** or **bold**.
- Search engines use your headings to index the structure and content of your web pages
- h1 headings should be main headings, followed by h2 headings, then the less important h3, and so on.

## ❖ HTML Horizontal Rules

- <hr> tag : a horizontal line in an HTML page. *Try it!*
- Can be used to separate content.

# HTML Paragraphs

## HTML Paragraphs

- `<p>` element defines a **paragraph**. *Try it!*
- Browsers automatically add an empty line before and after a paragraph.

## HTML Display

- With HTML, you cannot change the output by adding extra spaces or extra lines in your HTML code *Try it!*
  - The browser will remove extra spaces and extra lines when the page is displayed.
  - Any number of spaces, and any number of new lines, count as only one space.



# HTML Styles

## HTML Styling

- Changing the default style of an HTML element, can be done with the **style attribute**. *Try it!*

## The HTML Style Attribute

`style="property:value"`

- Property** : CSS property, **value** : CSS value

# HTML Styles (cont'd)

## HTML Text Color

- The **color** property defines the text color. [Try it!](#)

## HTML Text Fonts

- The **font-family** property defines the font. [Try it!](#)

## HTML Text Size

- The **font-size** property defines the text size. [Try it!](#)

## HTML Text Alignment

- The **text-align** property defines the horizontal text alignment. [Try it!](#)

# HTML Text Formatting Elements

**This text is bold**

*This text is italic*

This is <sup>superscript</sup>

## HTML Formatting Elements

- To display special **types of text**.
- Bold text, important text, italic text, emphasized text, marked text, small text, deleted text, inserted text, subscripts, superscripts

## HTML Bold and Strong Formatting

- `<b>` element defines bold text, without any extra importance. Try it!
- `<strong>` element defines strong text, with added semantic “strong” importance. Try it!

## HTML *Italic* and *Emphasized* Formatting

- `<i>` element defines *italic* text, without any extra importance. Try it!
- `<em>` element defines *emphasized*, with added semantic importance. Try it!

# HTML Comments

## HTML Comment Tags

```
<!-- Writ your comments here -->
```

- Comments are not displayed by the browser, but they can help document your HTML. *Try it!*
- Comments are also great for debugging HTML, because you can comment out HTML lines of code, one at a time, to search for errors.

## Conditional Comments

- Defines HTML tags to be executed by Internet Explorer only.

```
<!-- [ if IE 8]>  
.... some HTML here...  
<![endif] -->
```

# HTML Styles - CSS

## ❏ Styling HTML with CSS

- ❏ Cascading Style Sheets
- ❏ Styling can be added to HTML elements in 3 ways.
  - Inline – using a **style attribute** in HTML elements
  - Internal– using a **<style> element** in the HTML **<head>** section
  - External – using one or more **external CSS files** (the most common way)

❏ In this tutorial, we use internal styling, because it is easier to demonstrate, and easier for you to try it yourself.

# HTML Styles – CSS (cont'd)

## ❏ CSS Syntax

*element { property : value ; property : value }*

- ❏ **element** : HTML element name, **property** : CSS property, **value** : CSS value
- ❏ Multiple styles are separated with semicolon.

## ❏ Inline Styling (Inline CSS) Try it!

- ❏ Useful for applying a unique style to a single HTML element.
- ❏ Use the **style attribute**.

## ❏ Internal Styling (Internal CSS) Try it!

- ❏ Can be used to define a common style for all HTML elements on a page.
- ❏ Defined in the **<head>** section of an HTML page, using a **<style>** element.

# HTML Styles – CSS (cont'd)

- ❏ **External Styling (External CSS)** *Try it!*
  - Ideal when the style is applied to many pages.
  - Defined in the **<head>** section of an HTML page, in the **<link>** element.
  - **In our class, this way is recommended!**

# HTML Links

❏ Links allow users to click their way from page to page.

## ❏ HTML Links – Hyperlinks

- An element, a text, or an image that you can click on, and jump to another document.

## ❏ HTML Links – Syntax *Try it!*

```
<a href = "url" > link text</a>
```

- **href** attribute specifies the destination address
  - Can be absolute(to another web site) or relative(to another page on this site)
- **link** text is the visible part



# HTML Links (cont'd)

## 📘 HTML Links – The target Attribute *Try it!*

- Specifies where to open the linked document
  - In a new browser window or in a new tab

Target Value	Description
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
<i>framename</i>	Opens the linked document in a named frame

# HTML Images

## HTML Images Syntax

- Defined with the `<img>` tag.
- `<img>` tag is empty, it contains attributes only, and does not have a closing tag.
- `src` attribute defines the url of the image.

```
<img src = "url" alt = "some_text" >
```

## The alt Attribute

- Specifies an alternate text for the image, if it cannot be displayed.

```
<img src = "html5.gif" alt = "The official HTML5 Icon" >
```

- Required**
- Screen readers can read the **alt** attribute

# HTML Images (cont'd)

## ❏ Image Size – Width and Height

- ❏ Can use the **style** attribute to specify the **width** and **height** of an image. Try it!
- ❏ Alternatively, you can use width and height attributes. Try it!

❏ << *Here is the end of "INTRODUCTION TO HTML" in Codecademy.com.* >>