

# HTML Tutorial

Reference: [www.w3schools.com/html](http://www.w3schools.com/html)

For more tutorial, check the reference site

# HTML

show some properties for a text  
through some markups.

property: web page display property

- Hyper Text Markup Language

```
<!DOCTYPE html> markup
<html>
  <head>
    <title>This is document title</title>
  </head>
  <body>
    <h1>This is a heading</h1>
    <p>Document content goes here.....</p>
  </body>
</html>
```

# Markup Language

- Annotating a document in a way that is distinguishable from the text.
  - E.g.) XML (eXtensible Markup Language)

```

<recipe>
  <title>Kimchi</title>
  <ingredientlist>
    <ingredient>Lettuce</ingredient>
    <ingredient>Red Pepper
    Powder</ingredient>
  </indgredientlist>
  <preparation>
    Do something you need to do...
  <preparation>
</recipe>
    
```

# Html Documents

- All HTML documents must start with a document type declaration: <!DOCTYPE html>.
- The HTML document itself begins with <html> and ends with </html>.
- The visible part of the HTML document is between <body> and </body>.

# HTML Editing

- Web pages can be created and modified by using professional HTML editors.
- However, for learning HTML we recommend a simple text editor like Notepad (PC) or TextEdit (Mac).
- For syntax coloring, notepad+ will be another option for you.

# Use Notepad

- **Step 1: Open Notepad (PC)**
  - Windows 8 or later: type notepad on search box in the bottom left of your screen.
  - Windows 7: Open the **Start Screen** (the window symbol at the bottom left on your screen). Type **Notepad**.
- **Step 1: Open TextEdit (Mac)**
  - Open **Finder > Applications > TextEdit**
  - Also change some preferences to get the application to save files correctly. In **Preferences > Format > choose "Plain Text"**
  - Then under "Open and Save", check the box that says "Ignore rich text commands in HTML files".
- **Step 2: Then open a new document to place the code.**

# Practice #1

- Create a html document and show it with your web browser

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>My First Heading</h1>
```

```
<p>My first paragraph.</p>
```

```
</body>
```

```
</html>
```

# HTML Elements

- Starting from < and ending with >

```
<p>Hello World!</p>
```

```
<tag attribute1="value1"  
attribute2="value2">Hello World!</tag>
```



# HTML elements

- HTML elements use various tags to display contents.
- Elements start from `<tag_name>` and end with `</tag_name>`

Tag	Description
<code>&lt;!DOCTYPE...&gt;</code>	This tag defines the document type and HTML version.
<code>&lt;html&gt;</code>	This tag encloses the complete HTML document and mainly comprises of document header which is represented by <code>&lt;head&gt;...&lt;/head&gt;</code> and document body which is represented by <code>&lt;body&gt;...&lt;/body&gt;</code> tags.
<code>&lt;head&gt;</code>	This tag represents the document's header which can keep other HTML tags like <code>&lt;title&gt;</code> , <code>&lt;link&gt;</code> etc.
<code>&lt;title&gt;</code>	The <code>&lt;title&gt;</code> tag is used inside the <code>&lt;head&gt;</code> tag to mention the document title.

# HTML tags more

Tag	Description
<code>&lt;h1&gt;</code>	This tag represents the heading with biggest fonts. If you want smaller sized heading, then select <code>&lt;h2&gt;</code> .. <code>&lt;h6&gt;</code>
<code>&lt;p&gt;</code>	This tag represents a paragraph.
<code>&lt;br&gt;</code>	This tag insert a single line break.
<code>&lt;div&gt;</code>	This tag defines a block of a document and often used as a container for other HTML elements.
<code>&lt;pre&gt;</code>	This tag maintains preformatted text.
<code>&lt;span&gt;</code>	This tag used as a container for some text.
<code>&lt;center&gt;</code>	This tag centers contents in the display.

```

<!DOCTYPE html>
<html>
<body>
<h1>This is heading 1</h1>
<p>This is some text.
This is another paragraph.
</p>
<hr>
<h2>This is heading 2</h2>
<p>This is some other
text.</p>
<hr>
</body>
</html>

```

# Heading

- HTML headings are defined with the `<h1>` to `<h6>` tags.

```
<h1>This is heading 1</h1>
```

```
<h2>This is heading 2</h2>
```

```
<h3>This is heading 3</h3>
```

# Paragraph

- HTML paragraphs are defined with the **<p>** tag:

```
<p>This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

# HTML link

- HTML links are defined with the `<a>` tag:

```
<a href="https://www.w3schools.com  
>This is a link</a>
```

# Image

- HTML images are defined with the `<img>` tag.
- The source file (src), alternative text (alt), width, and height are provided as attributes:

```

```

# HTML Attributes

- Attributes provide additional information about HTML elements.

```
<!DOCTYPE html>  
<html lang="en-US">  
<body>  
  
<p title="I'm a tooltip">  
This is a paragraph.  
</p>  
  
</body>  
</html>
```

# HTML styling

- Setting the style of an HTML element
  - Use **background-color** for background color
  - Use **color** for text colors
  - Use **font-family** for text fonts
  - Use **font-size** for text sizes
  - Use **text-align** for text alignment

```
<h1 style="color:blue;">This is a heading</h1>
```

```
<h1 style="font-family:verdana;">This is a heading</h1>
```

```
<h1 style="font-size:300%;">This is a heading</h1>
```

```
<h1 style="text-align:center;">Centered Heading</h1>
```



## Practice #2

- Create a html document and show it with your web browser

```
<!DOCTYPE html>
<html>
<body>
<p style="color:blue;">This paragraph contains a
lot of lines in the source code, but the browser
ignores it.</p>
<p >This paragraph contains          a lot of
spaces in the source          code, but the
browser ignores it.</p>
<p style="text-align:center;">This paragraph
contains          a lot of spaces in the source
code, but the          browser ignores it.</p>

</body>
</html>
```

# HTML text formatting

- Define special elements for defining text with a special meaning

E.G. ) `<b>This text is bold</b>`

- `<b>` - Bold text
- `<strong>` - Important text
- `<i>` - Italic text
- `<em>` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Small text
- `<del>` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

# HTML Links

- Links allows users to click their way from page to page.

```
<a href="https://www.w3schools.com/html/">Visit our HTML  
tutorial</a>  
<a href="html_images.asp">HTML Images</a> <!-- local  
file link -->
```

# External Path Link

- You can link an external web pages through path link.
- By linking an URL, users can access any external web pages within a web page.
- Example
  - `<a href="https://www.w3schools.com/html/default.asp">HTML tutorial</a>`

# HTML image link

- Images are defined with <img> tag.

```
  

```

- src is name of image file name. alt is alternative text when image is not displayed correctly.
- To use an image as a link, nest <img> inside <a> tag.

```
<a href="default.asp">  
    
</a>
```

# HTML table

- Each table row is defined with `<tr>` tag and a table header is defined with `<th>`. Table data is defined with `<td>`.

```
<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>
</table>
```

## Practice #3

- Create a table below and show it to your web browser

Name	Student ID	Midterm Exam	Final Exam	Sum
John	20181111	80	90	170
Jane	20181101	85	95	180
Jimmy	20181122	70	75	145
James	20183321	65	60	125
Emily	20182231	60	40	100

# HTML Lists

- Unordered list starts with `<ul>` tag and ordered list starts with `<ol>` tag.

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

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



## Practice #4

- Create a list from the previous slide.

# HTML Comments

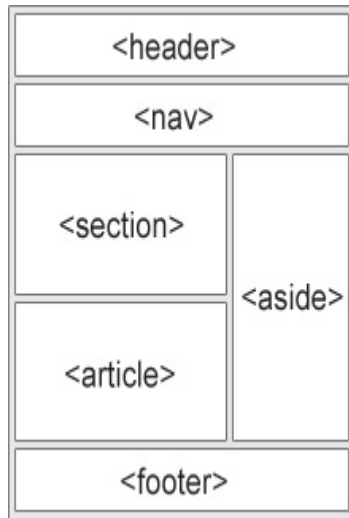
- HTML Comment Tags
- `<!-- Write your comments here -->`
- Example
- `<!-- This is a comment -->`

`<p>This is a paragraph.</p>`

`<!-- Remember to add more information here -->`



# HTML Layouts



- `<header>` - Defines a header for a document or a section
- `<nav>` - Defines a container for navigation links
- `<section>` - Defines a section in a document
- `<article>` - Defines an independent self-contained article
- `<aside>` - Defines content aside from the content (like a sidebar)
- `<footer>` - Defines a footer for a document or a section
- `<details>` - Defines additional details
- `<summary>` - Defines a heading for the `<details>` element

# HTML Styles (CSS)

- CSS stands for Cascading Style Sheets.
- Describes how HTML elements are to be displayed on screen.
  - Inline : Use style attribute in HTML elements
  - Internal : using `<style>` element in the `<head>` section.
  - External : use external css file.

# Inline CSS

- Use style attribute of an HTML element.

```
<h1 style="color:blue;">This is a Blue Heading</h1>
```

# Internal CSS

- Use <style> in <head> section.

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
    color: blue;
    font-family: verdana;
    font-size: 300%;
}
p {
    color: red;
    font-family: courier;
    font-size: 160%;
}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

# External CSS

- Use external style sheet.
  - You can change the look of an entire web site by changing one file.

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

  <h1>This is a heading</h1>
  <p>This is a paragraph.</p>

</body>
</html>
```

# HTML class attribute

- Class attribute makes it possible to define equal styles to a set of elements with giving the same name class.

```
<!DOCTYPE html>
<html>
<head>
<style>

```



```
<div class="cities">
```

```
<h2>London</h2>
```

```
<p>London is the capital of England. It is the most  
populous city in the United Kingdom, with a metropolitan  
area of over 13 million inhabitants.</p>
```

```
</div>
```

```
<div class="cities">
```

```
<h2>Paris</h2>
```

```
<p>Paris is the capital and most populous city of  
France.</p>
```

```
</div>
```

```
<div>
```

```
<h2>Tokyo</h2>
```

```
<p>Tokyo is the capital of Japan, the center of the  
Greater Tokyo Area,  
and the most populous metropolitan area in the world.</p>
```

```
</div>
```

```
</body>
```

```
</html>
```

## Practice #5

- Practice CSS creating a document from the example in the previous slides.

# HTML Iframes

- Used to display a web page within a web page.

```
<iframe src="demo_iframe.htm" style="border:2px solid  
grey;" height="200" width="300"></iframe>
```

# HTML forms

- HTML form is used for collecting user intpus.

- Text input

```
<form>
  First name:<br>
  <input type="text" name="firstname"><br>
  Last name:<br>
  <input type="text" name="lastname">
</form>
```

- Radio Button

```
<form>
  <input type="radio" name="gender" value="male" checked> Male<br>
  <input type="radio" name="gender" value="female"> Female<br>
  <input type="radio" name="gender" value="other"> Other
</form>
```

- Submit button

```
<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"><br><br>  
  <input type="submit" value="Submit">  
</form>
```

- Action attribute

- Defines the action to be performed when the form is submitted.

- Method attribute

- Specifies HTTP method (get or post)

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

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

## Practice #6

- Create a html form document using the example in the previous slides.

# Homework

- Capture your practice result and make a document that shows it.
- Write your resume with html format and capture your screen.
  - Your html file should be viewed from any web browser.
- You also have to submit your source code to eclass