

# HTML, CSS and BootStrap

Trainer: Jan G. Panado

# Web Evolution

## Static | Web 1.0

- **HTML** (Hypertext Markup Language)

- ✓ **Does not allow inputs**
- ✓ **No database integration**
- ✓ **Non-interactive**

### HTML for Dummies (HTML Generators)

- Microsoft Frontpage
- Macromedia Dreamweaver
- Adobe Go Live

## Dynamic | Web 2.0

- **PHP** (Hypertext Preprocessor) - MySQL|MariaDB
- **JSP** (Java Server Pages) - Oracle
- **ASP** (Active Server Pages) - MsSql

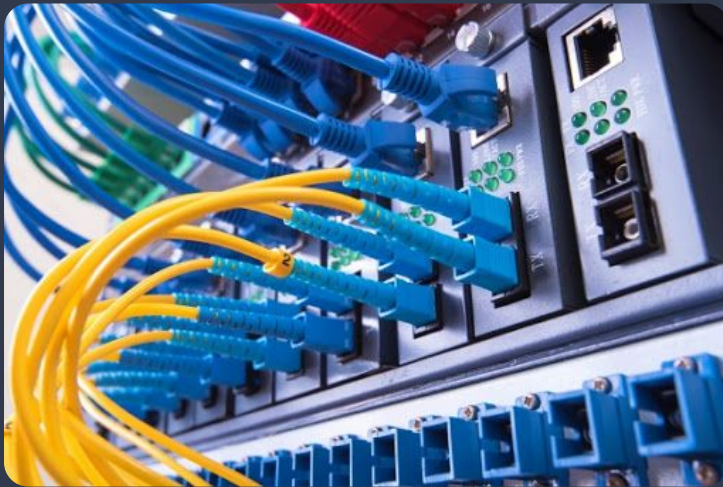
- ✓ **Allow inputs**
- ✓ **Database Integrated**
- ✓ **Interactive**

### PHP for Dummies (PHP Generators)

- Mambo CMS
- Joomla CMS
  - Medium
  - Medium - Large
- Drupal CMS
  - Hard
  - Medium - Large
- Wordpress CMS
  - Simple
  - Small - Medium

# The Internet

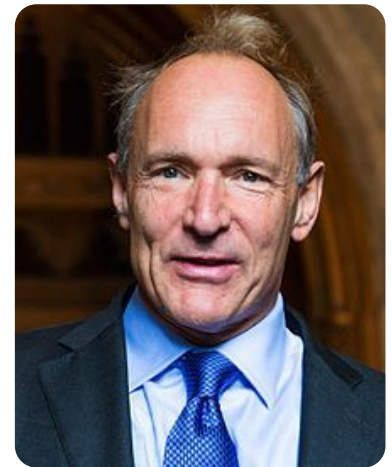
Conceptualized in 1960s by ARPANET



Refers to the Infrastructure of Interconnected Devices

# The World Wide Web

Conceptualized in 1989



Sir Timothy John Berners-Lee in 2014  
8 June 1955 (age 65)  
London, England

# Web Server

Hosting Provider



- Beefed-Up Computers That Run 24/7
- Stores Your Files For You
- Shares Files To Be Globally Available

# Domain Name Service

Domain Name | Computer Name



- The Name of a Computer Linked to an Address
- Human Readable Address Normal People Use
- URL | Uniform Resource Locator | Web Address

# Browser

Displays Web Pages



- ❖ Chrome
- ❖ Firefox
- ❖ Brave
- ❖ Safari
- ❖ Opera
- ❖ Internet Explorer

- Translates Code to Display Web Pages
- Linked to a Search Engine To Link URLs

# Web Pages

Made Up of Codes



- Displayed by the Browser
- Accessed by URLs
- The Translated Instructions From the Browser

Download VSCode at:

<https://code.visualstudio.com/>

# Text Editors

Tools of Convenience



- ❖ VSCode
- ❖ Atom
- ❖ Sublime
- ❖ Brackets
- ❖ Notepad++
- ❖ Text Mate

- ➔ Provides Line by Line Code Editing
- ➔ Minimizes Human Error
- ➔ Saves Time

# Codes

The Backbone of Webpages

```
1 <!doctype html>
2 <!--[if lt IE 7]> <html class="no-js ie6 oldie" lang="en-US"> <![e
3 <!--[if IE 7]> <html class="no-js ie7 oldie" lang="en-US"> <![e
4 <!--[if IE 8]> <html class="no-js ie8 oldie" lang="en-US"> <![e
5 <!--[if gt IE 8]><!--> <html lang="en-US"> <!--<![endif]>-->
6 <head>
7 <link rel="shortcut" href="https://www.inventivemedia.com/ph/wp-co
8 <link rel="shortcut icon" href="https://www.inventivemedia.com/ph/
9 <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
10 <meta charset="UTF-8" />
11 <meta name="viewport" content="width=device-width, minimum-scale=1
12 <link rel="pingback" href="https://www.inventivemedia.com/ph/xmlrp
13 <title>Computer Courses for Web, Graphics & Networking Philipp
14 <meta name='robots' content='max-image-preview:large' />
15
16 <meta name="description" content="Philippines Leading IT training
17 <meta name="robots" content="index, follow" />
18 <meta name="googlebot" content="index, follow, max-snippet:-1, max
```

- Instructions Told to the Browser
- Made by Developers Like You
- Typed and Coded Through Text Editors

# Filing / Directories

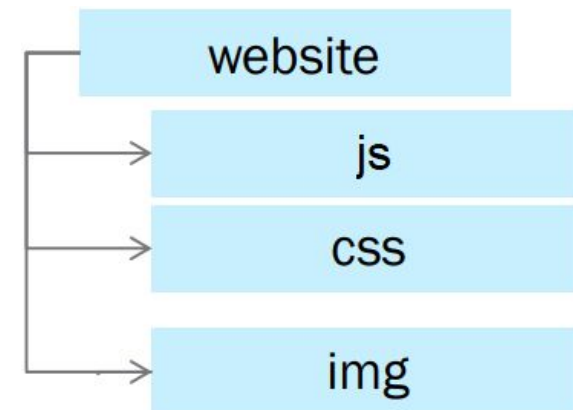


```

```

## Basic Rules in Naming

- **Don't use spaces (%20)**
  - Instead use underscore or hyphen (e.g. \_ , -)
  - Underscore and hyphens are acceptable characters.
- **Use descriptive and short names for your pages and folders**
- **Avoid using Upper-case letters**
  - Many servers are case-sensitive and you will have a difficult time bringing-up a site if you forgot which of the letters are capitalized
- **Avoid using special characters**
  - . " ", ! ? / \ ~ \* & % \$ # @ ( )





# What is HTML?



- Hyper Text Markup Language
- Uses the .html and .htm file extension
- HTML elements are the building blocks of a webpage







# Basic HTML Structure Tags

All HTML documents contains the following tags for structure:

- `<HTML> ... </HTML>`
- `<HEAD> ... </HEAD>`
- `<TITLE> ... </TITLE>`
- `<BODY> ... </BODY>`

```
<!DOCTYPE html>
<html>
  <head>
    <title> Title here </title>
  </head>
  <body>
    Web page content goes here.
  </body>
</html>
```

A diagram illustrating the nesting of HTML tags. Red brackets are used to group the elements: a large bracket on the left groups the entire document structure from <html> to </html>; a bracket on the right groups the <head> and </head> section; and a bracket on the right groups the <body> and </body> section. This visualizes how the body and head are nested within the main html document structure.

\* All HTML docs are nested



# <!DOCTYPE> Tag

## !DOCTYPE

- Rules/version for the Markup language
- Before <html> tag
- Not case sensitive

```
<!DOCTYPE html>
<html>

  <head>
    <title> Title here </title>
  </head>

  <body>
    Web page content goes here.
  </body>

</html>
```

### HTML 4.01 Strict

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

### HTML 4.01 Transitional

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

### HTML 5

```
<!DOCTYPE html>
```

# HTML Syntax

ELEMENT > ATTRIBUTE > VALUE

## SYNTAX:

```
<p title="text">paragraph</p>
```

Start tag

Attribute

Value

End tag

ELEMENTS = come in pairs

ATTRIBUTE = additional info  
placed in the start tag  
some have values, some don't



# Text Elements

- **Headers** `<h1> </h1>` (1 - 6 )
- **Paragraph** `<p> </p>`
- **Link** `<a> </a>`
- **Break** `<br/>`

```
<body>

    <h1>Heading</h1>

    <p>Lorem ipsum dolor
    <br> sit amet.</p>

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

</body>
```



# Empty HTML Elements

Empty HTML Elements - elements with no content

- `<br>`
- `<meta/>`
- `<hr>`
- `<img>`
- `<input/>`

# Lists

- Ordered Lists
- Unordered Lists

```
<body>  
  
    <ol>  
        <li>What</li>  
        <li>Where</li>  
        <li>When</li>  
    </ol>  
  
    <ul>  
        <li>What</li>  
        <li>Where</li>  
        <li>When</li>  
    </ul>  
  
</body>
```





# Global Attributes

Can be used on ANY element

title	=	Tooltip for an element
style	=	Inline CSS
class	=	To assign 1 or more classes to an element
id	=	To assign a unique identifier to an element



# <HEAD> Tag

- <style></style>
- <meta>

```
<head>  
    <title>Site Title</title>  
    <style> </style>  
    <meta name="keywords">  
  
</head>
```



# <META> Tag

- Character set
- Name
  - Description
  - Keywords
  - Author

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta name="description"  
content="Personal site">
```






```
<meta name="keywords"  
content="Profile, pictures,  
email">
```

```
<meta name="author"  
content="Your Name">
```

```
</head>
```



# <META> Tag

- <Title>  lodestar.ph ▾  
**Lodestar Engineering (Philippines)**
- Description  No information is available for this page.  
[Learn why](#)
- Keywords  www.bca.gov.sg › BCADirectory › Company › Details ▾  
**Index - BCA Directory**  
**LODESTAR ENGINEERING** PTE. LTD. UEN No. : 200410544W. Address : 31 BUKIT BATOK CRESCENT #01-04 THE SPLENDOUR Singapore 658070 ...  
 www.yellow-pages.ph › business › lodestar-engineering... ▾  
**Lodestar Engineering Supply in Mandaluyong City, Metro ...**  
Find contact information, products, services, photos, videos, branches, events, promos, jobs and maps for **Lodestar Engineering** Supply in Nueva Pebrero Street, ...  
 www.facebook.com › ... › Solar Energy Service ▾  
**Lodestar Tech. Enterprise - Home | Facebook**  
Lodestar Tech. Enterprise, Mandaluyong, Philippines. 489 likes · 29 were here. Official Facebook page of **Lodestar Engineering** - an electro-mechanical...



# Other Elements

- Horizontal Line    `<hr>`

```
<hr width="500px">  
<p>some text</p>
```



# Text Elements

- **Bold** `<b> </b>`
- *Italic* `<i> </i>`
- Underline `<u> </u>`
- Small `<small> </small>`
- *Emphasized* `<em> </em>`

`<p>`

`<b>Bold</b>`

`<i>Italicized</i>`

`<u>Underline</u>`

`<small>Small</small>`

`<em>Emphasized</em>`

`</p>`





# Text Elements

- **Strong**      `<strong> </strong>`
- Subscript      `<sub> </sub>`
- Superscript      `<sup> </sup>`
- Inserted text      `<ins> </ins>`
- ~~Deleted text~~      `<del> </del>`
- **Mark**      `<mark> </mark>`

`<p>`

```
<strong>Strong</strong>
Text w/ <sub>Subscript</sub>
Text w/ <sup>Superscript</sup>
<ins>Inserted</ins>
<del>Deleted</del>
<mark>Highlighted</mark>
```

`</p>`

# Special Characters

- Copyright      &copy;
- Registered    &reg;
- Trademark    &trade;
- Arrows
  - Left          &larr;
  - Right        &rarr;
  - Up            &uarr;
  - Down        &darr;

`< p >`

&copy;  
 &reg;  
 &trade;  
 &larr;  
 &rarr;  
 &uarr;  
 &darr;

`< / p >`



# Images

- Images
  - Source src
  - Alt alt
  - Height height
  - Width width
- Filetypes
  - JPG - Low Filesize
  - GIF - Low Colors
  - PNG - Supports Transparency
  - SVG - Scalable

```
<body>  
    <br>  
  
</body>
```

# Links

- Text Links
- Image Links
- Relative & Absolute
- Target
- Anchors
- Email Links
- Title

```
<body>

    <a
      href="http://url.com#anchor"
      target="_blank"
      title="description">
      Text Link</a>

    <a
      href="http://url.com#anchor"
      target="_blank"
      title="description">
      </a>

</body>
```

# Media



- Videos
  - Youtube
  - From file
- Audio
  - mp3

```
<body>
```

```
<video width="320" height="240" controls>  
  <source src="file.mp4" type="video/mp4">  
  Your browser does not support the video tag.  
</video>
```

```
<audio controls>  
  <source src="file.mp3" type="audio/mpeg">  
  Your browser does not support the audio tag.  
</audio>
```

```
</body>
```

# Tables

- Table `<table></table>`
  - Rows `<tr></tr>`
  - Columns `<td></td>`
  - Table Header `<th></th>`
  - Rowspan `rowspan`
  - Colspan `colspan`
  - thead `<thead></thead>`
  - tbody `<tbody></tbody>`

```
<body>

    <table>
    <tr>
    <th>Activity</th>
    <th colspan="2">Dates</th>
    </tr>
    <tr>
    <td>Self Defense Seminar</td>
    <td>5/12/15</td>
    <td>9/08/15</td>
    </tr>
    </table>

</body>
```





# Forms

- Form `<form></form>`
  - Input `<input>`
  - Textarea `<textarea></textarea>`
  - Select `<select></select>`
  - Button `<button>`

```
<form
action="MAILTO:someone@example.com"
method="post" enctype="text/plain">

  <select>
    <optgroup label="Group 1">
      <option value="Op1" selected>Option1</a>
      <option value="Op2">Option2</a>
    </optgroup>
    <optgroup label="Group 2">
      <option value="Op3">Option3</a>
    </optgroup>
  </select>

  <textarea name="message" rows="10"
  cols="30">
    Type your message here.
  </textarea>
  <label>Label</label>
  <input type="text" name="fullname">
  <button type="button">Click me!</button>

</form>
```

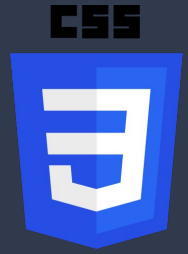
# Input

- Empty element
- Type
  - Button
  - Checkbox
  - Color
  - Date
  - Datetime
  - Email
  - File
  - Number
  - Password
  - Radio
  - Range
  - Reset
  - Search
  - Submit
  - Tel
  - Text
  - Time
  - URL

# Divs

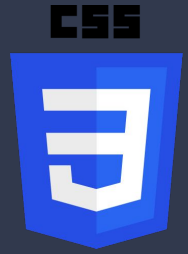
- Tool for divisions or selections
- Useful for applying CSS  
To a certain group of elements.
- Very useful for creating layouts

```
<body>  
    <div class="class">  
        <h3>Text</h3>  
        <p>Paragraph.</p>  
    </div>  
</body>
```



# What is CSS?

- Cascading Style Sheet
- How HTML elements will be displayed
- HTML shouldn't have formatting
- Changing style attributes (size, color, design)
- Saves a lot of work / time
- .css file extension



# Types of CSS Styling

- **Inline**

```
<h1 style="color:blue;margin-left:30px;">This is a heading.</h1>  
<span style="text-align: right;">Right aligned</span>
```

- **Internal**

```
<head>  
  <style>  
  
    body { background-color: linen;}  
  
    h1 { color: maroon; margin-left: 40px;}  
  
  </style>  
</head>
```

- **External**

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

# What is Bootstrap?



- Bootstrap is an open-source free front-end framework
- Bootstrap Includes HTML, CSS and Javascript based design templates for typography, forms, buttons, tables, navigation, etc.
- Lets you create responsive designs
- “Repurposes some tags”
- Save lots of time
- Responsive features
- Consistent design
- Easy to use
- Compatible with browsers