## Web Development

Web Development consists of three main things: HTML, CSS and JavaScript. HTML is the basic building blocks of a website which describes things on a webpage. For example, bricks in a building. CSS is for styling and looks of elements in a webpage. For example, paint on the walls of a building. JavaScript is actions that can be performed on a webpage. For example, switching on and off a ceiling fan in a room of a building.

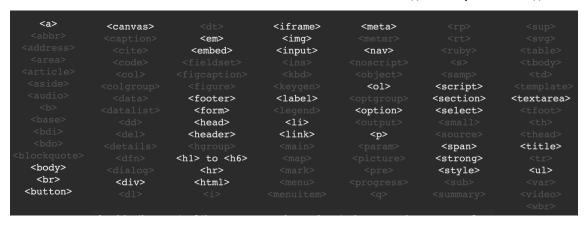
## HTML

- HTML stands for HyperText Markup Language.
- HyperText means some texts in a webpage are linked to other webpages in a website. These texts are called hyperlinks or hypertexts.
- Markup Language means we can markup web pages like setting a text as bold, button as red color, etc. Markup is done through HTML Tags.
- It defines the content and structure of a website.

These are all the tags that are available in HTML:

<a> <abbr> <address> <area/> <article> <aside></aside></article></address></abbr></a>	<canvas> <caption> <cite> <code> <col/> <coly< th=""><th><dt> <em> <embed/> <fieldset> <figcaption> <figure></figure></figcaption></fieldset></em></dt></th><th><iframe> <img/> <input/> <ins> <kbd> <keygen/></kbd></ins></iframe></th><th><meta/> <meta/> <meter> <nav> <noscript> <object> <ol></ol></object></noscript></nav></meter></th><th><rp> <rt> <rt> <ruby> <s> <samp> <script></th><th><sup> <svg></th></tr><tr><td></td><td><cite></td><td><embed></td><td><input></td><td><nav></td><td><ruby></td><td></td></tr><tr><td></td><td><code></td><td><fieldset></td><td><ins></td><td><noscript></td><td><s></td><td></td></tr><tr><td></td><td><col></td><td><figcaption></td><td><kbd></td><td><object></td><td><samp></td><td></td></tr><tr><td></td><td><colgroup></td><td><figure></td><td><keygen></td><td><ol></td><td><script></td><td><template></td></tr><tr><td><audio></td><td><data></td><td><footer></td><td><label></td><td><optgroup></td><td><section></td><td><textarea></td></tr><tr><td><b></td><td><datalist></td><td><form></td><td><legend></td><td><option></td><td><select></td><td><tfoot></td></tr><tr><td><base></td><td><dd></td><td><head></td><td><li><li><</td><td><output></td><td><small></td><td></td></tr><tr><td><bdi></td><td><del></td><td><header></td><td><li>k></td><td>></td><td><source></td><td><thead></td></tr><tr><td><bdo></td><td><details></td><td><hgroup></td><td><main></td><td><param></td><td><span></td><td><title></td></tr><tr><td>     </td><td><dfn></td><td><h1> to <h6></td><td><map></td><td><picture></td><td><strong></td><td></td></tr><tr><td><body></td><td><dialog></td><td><hr>></td><td><mark></td><td><pre></td><td><style></td><td><ul><li><ul></li></ul></td></tr><tr><td></td><td><div></td><td><html></td><td><menu></td><td><pre><pre><pre><pre><pre><pre><pre><pre></td><td><sub></td><td><var></td></tr><tr><td><button></td><td><dl></td><td><i>></td><td><menuitem></td><td><q>></td><td><summary></td><td><video> <wbr></td></tr></tbody></table></script></samp></s></ruby></rt></rt></rp></th></coly<></code></cite></caption></canvas>	<dt> <em> <embed/> <fieldset> <figcaption> <figure></figure></figcaption></fieldset></em></dt>	<iframe> <img/> <input/> <ins> <kbd> <keygen/></kbd></ins></iframe>	<meta/> <meta/> <meter> <nav> <noscript> <object> <ol></ol></object></noscript></nav></meter>	<rp> <rt> <rt> <ruby> <s> <samp> <script></th><th><sup> <svg></th></tr><tr><td></td><td><cite></td><td><embed></td><td><input></td><td><nav></td><td><ruby></td><td></td></tr><tr><td></td><td><code></td><td><fieldset></td><td><ins></td><td><noscript></td><td><s></td><td></td></tr><tr><td></td><td><col></td><td><figcaption></td><td><kbd></td><td><object></td><td><samp></td><td></td></tr><tr><td></td><td><colgroup></td><td><figure></td><td><keygen></td><td><ol></td><td><script></td><td><template></td></tr><tr><td><audio></td><td><data></td><td><footer></td><td><label></td><td><optgroup></td><td><section></td><td><textarea></td></tr><tr><td><b></td><td><datalist></td><td><form></td><td><legend></td><td><option></td><td><select></td><td><tfoot></td></tr><tr><td><base></td><td><dd></td><td><head></td><td><li><li><</td><td><output></td><td><small></td><td></td></tr><tr><td><bdi></td><td><del></td><td><header></td><td><li>k></td><td>></td><td><source></td><td><thead></td></tr><tr><td><bdo></td><td><details></td><td><hgroup></td><td><main></td><td><param></td><td><span></td><td><title></td></tr><tr><td>     </td><td><dfn></td><td><h1> to <h6></td><td><map></td><td><picture></td><td><strong></td><td></td></tr><tr><td><body></td><td><dialog></td><td><hr>></td><td><mark></td><td><pre></td><td><style></td><td><ul><li><ul></li></ul></td></tr><tr><td></td><td><div></td><td><html></td><td><menu></td><td><pre><pre><pre><pre><pre><pre><pre><pre></td><td><sub></td><td><var></td></tr><tr><td><button></td><td><dl></td><td><i>></td><td><menuitem></td><td><q>></td><td><summary></td><td><video> <wbr></td></tr></tbody></table></script></samp></s></ruby></rt></rt></rp>
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And these are the essential ones that we'll use most of the time:



<u>Tags vs. Elements:</u> There are two common terms in HTML that are Tags and Elements. Tags are a piece of a HTML element inside angle brackets (<>). For example, <h1> is a tag. Element consists of tags and its content. For example, <h1>Hello World</h1> is an element.

## **Basic HTML Tags:**

1. <u>Heading Tags (h1-h6)</u>: These are used to display headings in a webpage. Heading Tags can be written as:

<h1>Hello World</h1>

In this,  $\langle h1 \rangle$  is an opening tag and  $\langle /h1 \rangle$  is a closing tag. Note that the closing tag contains a forward slash i.e. " $\underline{/}$ ". Between these two tags is the content of that element.

There are 6 levels of heading starting from h1 (highest level) to h6 (lowest level). Each of these have their own default size. Note that there can only be 1 single h1 element in the whole HTML code.

2. <u>Paragraph Tag (p):</u> This tag is used to add paragraph or text content. This tag can be represented as:

Paragraph 1

3. <u>Void Elements (hr and br):</u> Void elements are those where we don't specify any content between tags. Above <h1>-<h6> and tags are non-void elements and are called <u>Container Tags</u>. <u>hr</u> and <u>br</u> are void elements and are called <u>Empty Tags</u>. <u>hr</u> stands for <u>horizontal rule</u> and <u>br</u> stands for <u>break</u>. These void elements are represented as:

<hr /> or <br />

<hr/> is used to separate different contents by providing a horizontal rule or line between them. <br/> is used to break a line into separate lines.