# The <!DOCTYPE> declaration:

* The <!DOCTYPE> declaration represents the document type and helps browser to display web pages correctly. It must appear once at the top of the page (before html tags)
* The <!DOCTYPE> declaration is not case sensitive.
* The <!DOCTYPE> for HTML5 is **<!DOCTYPE html>**

# HTML headings:

* Html headings are defined with the **<h1>** to **<h6>**.  
  <h1> defines the most important heading, <h6> defines the least important heading.
* <h1> This is heading </h1>  
  <h2> This is heading </h2>  
  and so on.

# HTML paragraphs:

* HTML paragraphs are defined with **<p>** tag
* <p> This is paragraph. </p>  
  <p> This is another paragraph. </p>

# HTML Links:

* HTML links are defined with the **<a>** tag:

<a href="https://www.google.com">this is a link</a>

The link destination is specified in the **href** attribute.  
Attributes are used to provide additional information about HTML elements.

# HTML Images:

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

<img src="image file path" alt="text in case image doen’t load" width="104" height="142">

# HTML Elements:

* An HTML element is defined by a start tag, some content, and an end tag.
* The HTML element is everything from the start to the end tag.  
  <tagname> some contend </tagname>  
  Eg. of some HTML elements:  
  **Start tag Element content End tag**  
  <h1> My first heading </h1>  
  <p> My first paragraph </p>
* Some HTML elements have no content (like the **<br>** element). These elements are called empty elements. *Empty elements do not have an end tag!*

# NESTED HTML Elements:

* HTML elements can be nested (this means that elements can contain other elements).
* All HTML documents consist of nested HTML elements.

# HTML Attributes:

All HTML elements can have attributes

* The **href** attribute specifies the URL of the page page the link goes to.
* The **src:** specifies the path to the the image to be displayed
* The **<img>** tag should also contain the **width** and **height**, specifies the width and height of the image (in pixels).  
  <img src = “image.jpg” width = “500” height = “600”>
* The **alt** attribute for the <img> tag specifies an alternative text for an image, if the image for some reason cannot be displayed. The reason can be due to poor connection, or an error in the **src** attribute, or if the user uses a screen reader.  
  eg. <img src = “img.jpg” alt = “this is image”>
* The **style** attribute is used to add styles to an element, such as color, font, size, and more.  
  eg. <p style = ”color: red;”> This is red.</p>
* The **lang** attribute inside the <html> tag to declare the language of the web page.  
  This is meant to assist the search engines and the browsers.  
  Eg.

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

<head>

</head>  
<body>  
</body>  
</html>

The country code can also be added to the language code in the lang attribute, so the 1st two characters define the language of the HTML page and the last two characters define the country.

* The **title** attribute defines some extra information about an element.  
  The value of the tittle attribute will be displayed as a tooltip when you mouse over the element.

<p title="Whats this">This is a paragrapgh</p>

# HTML Headings:

* HTML headings are tittles or subtitles that you want to display on a webpage
* HTML headings are definend with the <h1> to <h6> tags.

<h1> defines the most important heading. **<h6>** defines the least important heading.  
Browser automatically add some white space(margin) before and after a heading.

* Headings are important, search engines uses the heading to index the structure and content of your web pages.  
  It’s important to use headings to show the document structure
* Use HTML headings for headings only. Don’t use headings to make text Big or bold.
* Bigger headings: Each HTML heading has a default size, we can specify the size for any heading with the **style** attribute and using the CSS **font-size** property.  
  <h1 style="font-size:100px;">This is heading</h1>

# HTML Paragraphs:

* The HTML <p> element defines a paragraph.  
  A paragraph always starts on a new line, and browsers automatically add some white space(margin) before and after a paragraph
* You cannot be sure how HTML will be displayed.

Large or small screens, and resized windows will create different results.  
With HTML you cannot change the display by adding extra space or extra lines in your HTML code.  
The browser will automatically remove any extra spaces and lines when the page is displayed.

* **HTML Horizontal Rule:** The **<hr>** tag defines the horizontal break in an HTML page and is most often used as Horizontal rule.  
  The **<hr>** element is used to separate content (or define a content) in HTML page.  
  The **<hr>** tag is an empty tag.
* **HTML Line Break:** The HTML **<br>** element defines a line break.

Use **<br>** if you want a line break (a new line) without using a new paragraph.

The **<br>** tag is an empty tag.

* **<pre> element**: The HTML **<pre>** element defines a preformatted text.

The text inside a **<pre>** element is displayed in a fixed width, font and it preserves both apaces and line breaks.

# HTML Styles:

* The HTML **style** attribute is used to add styles to an element, such as colour, font, size and more.  
  The HTML style property has following syntax:

<tagname style="property:value;">

The property is a CSS property. The value is CSS value

* **Background colour:** The CSS background-color property defines the background for an html element.

<body style="background-color:powerblue">

<h1 style="font-size:100px;">This is heading</h1>

<p style="background-color:grey;">This is some text</p>

* **Text colour:** The CSS color property defines the text color for an html element:

<p style="color:magenta;">Changing the color of text</p>

* **Fonts:** The CSS font-family property defines the font to be used for an HTML element.

<h2 style="font-family:verdana;">Learning HTML</h2>

<p style="font-family:broadway;" >Checking the font family</p>

* **Font size**: The CSS font-size property defines the text size for an HTML element

<p style="font-size:20px;">Changing the font size of text</p>

* **Text align:** The CSS text-align property defines the horizontal text alignment for HTML element.<h3 style="text-align:center;">Heading alignment</h3>  
  <p style="text-align:center;">Text alignment to center</p>

# HTML Text Formatting:

* **<b> - Bold text**: defines bold text, without any extra importance.
* **<strong> - Important text:** The <strong> element defines text with strong importance. The content inside is typically Bold.
* **<i> - Italic text:**  The content inside <i> is typically displayed in italic.
* **<em> - Emphasized text:** The <em> element defines the emphasized text. The content inside is typically displayed in italic.
* **<mark> - Marked text**: The <mark> element defines text that should be marked or highlighted.
* **<small> - Smaller text:** <small> element defines smaller text.
* **<del> - Deleted text**: The <del> element defines text that has been deleted from a document. Browser will usually strike a line through deleted text.
* **<ins> - Inserted text:** The <ins> element defines a text that has been inserted into a document. Browser will usually underline inserted text.
* **<sub> - Subscript text:** The <sub> element defines subscript text. Subscript text show half a character below the normal line and is sometime rendered in a smaller font. The subscript text can be used for chemical formulas like H2O.
* **<sup> - Superscript text:** The <sup> element defines superscript text. Superscript text appears half a character above the normal line and is sometime rendered in a smaller font, superscript text can be used for footnotes, like WWW[1]

<p style="font-size:20px"><b> Writing bold </b> and

<strong> with strong </strong> <br>

<i> trying some itallic </i>  
<em> and some emphasized in </em>

<mark style="font-size:40px;">marking it with big font size</mark><br>  
deleteing <del> Mohit </del> and inserting <ins> Dinesh </ins>

now creating subscripted<sub>mohit</sub> text and  
superscripted <sup>Mohit</sup> this is over now </p>

# HTML Quotations:

* **<abbr>**: Defines an abbreviation for an acronym, like “HTML”, “CSS”, “Dr.”, ”ATM”.  
  Marking <abbr> gives useful information to browsers, translation system and search-engines.  
  **Tip.** Use the global tittle attribute to show the description for the abbreviation/acronym when you mouse over the element.
* **<address>**: Defines contact information for the author/owner of a document or an article.  
  The contact information can be an email address, URL, physical address, phone number, social media handle, etc.  
  The text in the <address> element usually in italic, and browser will always add a line break before and after the <address> element.
* **<bdo>:** Bi-Directional Override. Is used to override the current text direction. Defines the text direction
* **<blockquote>:** Defines a section that is quoted from another source.   
  Browser usually Indent <blockquote> elements.
* **<cite>**: Defines the title of a creative work (eg. a book, a poem, a song, a movie, a painting, a sculpture, etc).  
  **Note:** A person’s name is not a tittle of work  
  The text in the <cite> element usually renders in italic.
* **<q>**: Defines a short inline quotation, Browser normally insert quotation marks around the quotation.

# HTML Colors:

* HTML Colors are specified with predefined color names, or with RGB, HEX, HSL, RGBA, or HSLA values
* Color names: In HTML color can be specified by using a color name.
* Background color: You can set the background color for HTML elements.
* Text color: You can set the color of text
* Border color: You can set the color of borders
* Color values: In HTML, colors can also be specified using RGB values, HEX values, RGBA values, and HSLA values

# HTML CSS:

* CSS- Cascading Style Sheets.
* CSS saves a lot of work. It can control the layout of multiple web pages all at once.
* CSS is used to format the layout of the webpage.  
  With CSS you can control the color, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background colors are to be used, different displays for different devices and screen sizes and much more.
* The word cascading means that the style applied to a parent element will also apply to all children elements within the parent. So if you set the color of the body text to ‘blue’ all headings, paragraph and the other text elements within the body will also get the same color (unless you specify something else)!
* CSS can be added to HTML document in 3 ways
  1. **Inline** – By using the <style> attribute inside the HTML element.
  2. **Internal** – By using <style> element in the <head> section
  3. **External** – By using a <link> element to link to an external CSS file.
* **INLINE CSS:**An Inline CSS is used to apply a unique style to a single HTML element  
  An inline CSS uses the **style** attribute of an HTML element.
* **Internal CSS:**An Internal CSS is used to define a style for a single HTML page.  
  An Internal CSS is defined in the <head> section of an HTML page, with in a <style> element.

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <style>  
 body{background-color:khaki;}  
 h1{color:red;  
 background-color:LightBlue;  
 text-align:center;  
 font-size:120px;}  
 p{color:black  
 background-color:ForestGreen;  
 font-size:20px;  
 font-family:calibri;  
 border:5px solid red;}  
 </style>  
</head>  
<body>  
<h1>Examination form</h1>  
<p>Submit form</p>  
</body>  
</html>

* **CSS padding**: the CSS **padding** defines a padding (space) between the text and the border.
* CSS margin: The css **margin** defines a margin (space) outside the border.

# HTML Links:

* Links are found in nearly all web pages. Links allow users to click their way from page to page
* **HTML links- Hyperlinks**