

# Week 2

## ❖ What's the HyperText Markup Language

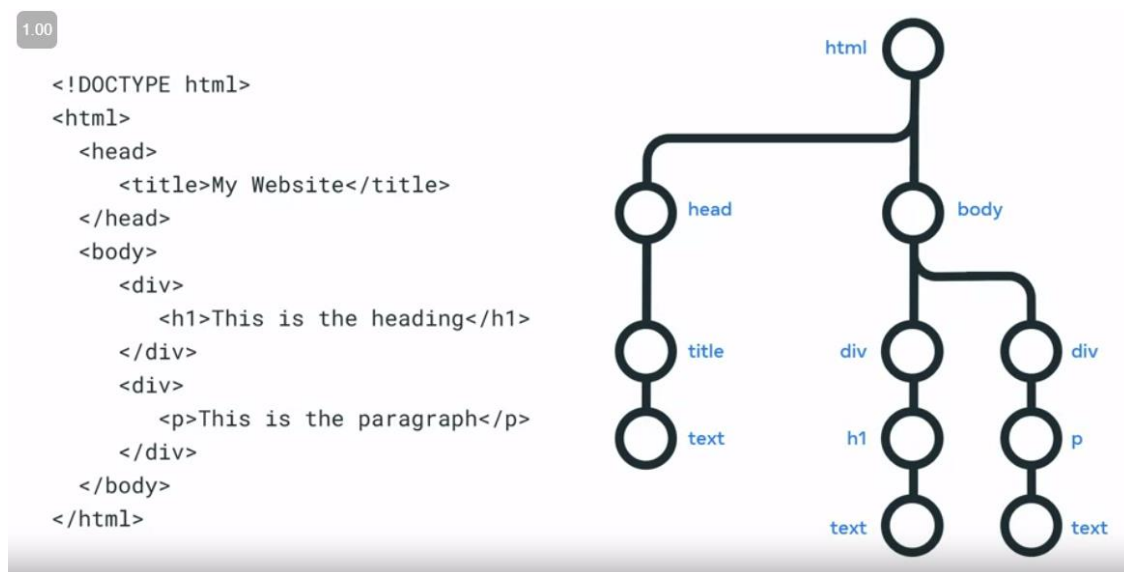
- HTML is simply a text file with a specific structure that consists of elements and tags
- HTML elements : is where the html code written
  - consists of an opening tag enclosed in angle brackets
    - ✓ EX: <p>
  - Most elements have opening tag and closing tag
    - ✓ EX: <p> this is an example </p>
  - You can also put element inside the other
    - ✓ EX: <p> element <br> inside the other </p>
- HTML specifications ruled by World Wide Web Consortium (W3C)
- The current version of html is HTML5
- The first HTML element which is standard for HTML is <!Doctype html>
- Emphasize tag (em) usually used for stressing the text contained in them
  - ✓ EX: I <em>really</em> want ice cream.
- Italics represent off-set text and should be used for technical terms, titles, a thought or a phrase from another language
  - ✓ EX: My favourite book is <i>Dracula</i>.
- Forms are the most used html element
  - It has many types
  - It enables user to enter his own data
  - It also used to save this data and send it to the backend to be processed

# Week 2

## ❖ Introduction to the DOM :

- DOM (Document Object Model) :
  - it is simply a tree, structure or model of the objects in your HTML file
  - it lets the html to interact with JavaScript so it can make a dynamic sites
  - consists of series of object each of it represents the html tags

✓ Ex :



- Dom objects can control the html elements using JavaScript like :
  - Update the tag or change it
  - Delete it for a particular feature
  - And another related to libraries and frameworks is to animate the html element

## ❖ Web Accessibility :

- Rule enables people with disabilities to understand navigate and interact with websites

# Week 2

- Created specifications and supportive tools by W3C until it be needed in every web industry
- Provide assistive technology that aid people with disabilities browsing :
  - Screen Readers
  - Speech recognition software
  - subtitles and video scripts and videos provide assistance
- problem : the structure of html has a major role in accessibility when you don't use any tag it may affect on the assistive technology
- Solution: The WAI provided one of its tasks is the accessible rich internet application or aria Specification
  - the aria specification outlines different techniques to improve accessibility for complex web apps

## ❖ CSS Basics :

- CSS consists of five elements :
  - Declaration block : the content of CSS code
  - Selector : the html element you want to change
  - Declaration : consists of property and value
  - Property : is the thing you want to add
  - Value : is the type of property you will add
- Selector can be variant :
  - Element selectors
  - Id selectors
  - Class selectors
  - Element class selector
  - Descendant selector
  - Child selector
  - Hover pseudo class

# Week 2

- Colours :

- Types :

- By RGB value

- RGB is a color model that adds the colours red (R), green (G) and blue (B) together to create colours. This is based on how the human eye sees colours.
      - Each value is defined as a number between 0 and 255, representing the intensity of that color.
      - The color black then would be 0,0,0 and the color white 255,255,255.

- By RGBA value

- RGBA is an extension of RGB that add an alpha (A) channel. The alpha channel represents the opacity, or transparency, of the color.

- By HSL value

- Hue, Saturation and lightness
      - The aim of the model is to simplify mental visualization of the color that the value represents.
      - Think of it like a circle
        - ◆ Hue is the degree value red is 0 ,green is 120 and blue is 240
        - ◆ Saturation is the distance from the centre to the edge of circle
        - ◆ Lightness think of it as a cylinder where the bottom of the shape is black and the top of it is white

# Week 2

- By hex value
  - Colours being specified by hexadecimal system (0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F)
  - Colours specified using hexadecimal are prefixed with a # symbol followed by the RGB value in hexadecimal format
    - ✓ Ex :#FF0000 =(255,0,0)
- By predefined color names.
  - Easiest color declaration
  - Many web browsers today support 140 predefined color
    - ✓ Ex : red , green , blue , aqua , lime
- Text specification :
  - Text color
  - Text font and size
  - Text transform
  - Text Decoration
- ◆ **Note : the code explanation for the colour and font in CSS rules file**

## ❖ Box model introduction

- Box model : the way that you tell the browser to display the HTML tags and CSS rules
- Box model consists of four parts
  - Content : the actual content of the element
  - Padding : extends the content size
  - Border : goes around the padding and content
  - Margin : extends the border area to separate the element from its neighbouring elements

# Week 2

## ❖ Document flow

- Block Elements:
  - Block elements are HTML elements that create a block-level box on a web page.
  - They typically start on a new line and occupy the full width available.
  - Examples of block elements include `<div>`, `<p>`, `<h1>` to `<h6>`, `<ul>`, `<ol>`, `<li>`, and `<section>`.
  - Block elements can contain other block elements and inline elements.
- Inline Elements:
  - Inline elements are HTML elements that do not create a new line and only occupy the space they need.
  - They flow within the text and do not force a line break.
  - Examples of inline elements include `<span>`, `<a>`, `<strong>`, `<em>`, `<img>`, `<input>`, and `<button>`.
  - Inline elements can only contain other inline elements or text but not block elements.

## ❖ Alignment Basics

- Text alignment: is the way that you change the alignment of element in HTML and it consists of :
  - Centre
  - Left : the default alignment
  - Right
  - Justify : spreads the text out so that every line of the text has the same width
- Html alignment :is an alignment built on the document flow and the box model