**MIDTERMS**

**HyperText Markup Language (HTML)**

**-** by Tim Burners Lee

- is the standard markup language for creating web pages and web applications.

- takes document using markup.

- Structure & Content (Main focus)

-Presentational / aesthetic (old format)

**Website**- is a collection of web resources such as wen pages and web applications.

- it is being host.

**World Wide Web Consortium (W3C) –** Tim Burners Lee

* + - Is an international community that develops open standards to ensure the long-term growth of the web.

Not already recommended codes in HTML:

* Character entities:
  + &nbsp –tab
  + &lt – less than
  + &gt – greater than
* <br>
* Tables –for tabular presentation.

**HTML versions:**

Current – 5.1

HTML 1.0 – 1989

2.0 – Nov 1995 RFC18661L

3.0 – superseded by 3.2

4.0 – December, 1997

4.1 – 1999

**Extensible HyperText Markup Language (XHTML)**

Version: 1.0 – January 26, 2000

Revised August 1, 2002

* + - It is used for data interchange
    - Wrappers up structure of a document

**Ian Hidson** – proposed to go back to HTML

**-** WHATWG

- later becomes HTML5 that is standardized in 2014

HTML 4.0

* **Transitional** – depreciated
* **Strict**
* **Frameset**

**The Elements of HTML**

**Index of Attributes**

Grouping

Categories

Flow:

* Heading
* Sectioning
* Interaction
* Phrasing
* Embedded
* Metadata

Content

* + - Flow content is expected
  + Content Model
    - Phrasing Content
  + Content Attribute
    - Global Attribute

Ex. Id, title, long, alt, src

**ARIA state and property attributes**

* + Global ARIA – attributes

**DOM interface**

* + - interface HTML Paragraph Element : HTML Element

Paragraph in HTML is Thematic a content

Content in w/c this element can be used: Embedded Content

Tag Omission in text HTML: No end tag

**Summary of HTML Elements**

Html  
 head  
 title, base, link, meta, style

Body  
 article, aside, nav, section

header, footer

main

address

div

h1, h2, h3, h4, h5, h6

p

hr

pre

blockquote

ol, ul

li

dl

dt, dd

figure

figcaption

a

em, strong, small

cite, q

dfn, abbr

ruby, rb, rt, rtc, rp --→ ruby anotations

data, time

code, vaar, samp, kbd

sup, sub

l, b, u, mark

bai, bdo

span

table

caption

colgroup, col

**CASCADING STYLE SHEET (CSS)**

CSS

* language used to specify the presentational aspects
* Developed by Hakon Wium Lie (CHSS) and Bert Bos (SSP)

Versions

* css 1 , css 2.1, css3

CSS Preprocessors, CSS Frameworks

* Sass, Less, 960 Grid System, Bootstrap, Foundation, Materializa, etc

**===HTML/XHTML STYLESHEETS===**

* author styles (external stylesheets,embedded styles, inline styles)
* user style
* user agent styles (example default css 2.1 stylesheet for HTML 4)

\* Reset CSS – overide the default stylesheet

**===CSS Statements===**

* At-Rules
  + @charset, @font-face @import ‘global.css’
* css rule sets (a.k.a CSS rules, style rules)
  + consults of a selector, followed by a declaration block.

**===CSS Selectors===**

* Simple Selector
  + either a type selector or universal selector followed by zero or more attribute selector , ID selectors or pseudo classes.
* Selector
  + chain of simple selector separated by combinators.
* Type selector
  + matches the name of a document language element type.
* Universal selector
  + written "\*", matches the name of any element type.
* Attribute selector

[att]

[att=val]

[att~=val]

[att|=val]

* ID selector

- match an element instance based on its identifier.

-A CSS ID selector contains a "#" followed by ID value.

* Pseudo classes
  + classify elements on characteristic other than their name, attributes or content.
  + there's is implicit class associated with.
* Dynamic pseudo class
  + ink pseudo class
  + link - link that have not yet visited.
  + visited - link that have been visited.
  + user action pseudo class
    - * hover
      * action - active a link
      * focus - move particular element
      * target pseudo classes
      * language pseudo classes

:lang()

* UI element states pseudo classes

-:enabled

-:disabled

-:checked

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* Structural

-:root

-:first-child

-:last-child

-only-child

-:nth-child

-:nth-last-child

-:first-of-type

-:last-of-type

-:only-of-type

-:nth-of-type

-:nth-last-type

-:empty

negation

:not() - negates the logic of the selector.

* Combinators
  + descendant combinator (whitespace i.e. space, tab, line feed, carriage return, form feed)

--child combinator(>)

adjacent sibling combinator (+)

general sibling combinator (~)

Pseudo elements

::first-letter :first-letter

::first-line :first-line

::before :before

:: after :after

**===CSS Rule Precedence===**

* **by origin and importance**
  + user agent important declarations
  + user important declarations
  + author important declarations
  + author normal declarations
  + user normal declarations
  + user agent nor mal declarations
* **by specificity**
  + inline – more specific
  + number of ID selectors
  + number of class selectors, attribute selectors and pseudo selectors
  + number of type selectors and pseudo elements
* **by order**

**===CSS Declarations===**

* **short hand properties**
  + background , font
* **vendor specific extension (aka vendor prefixes)**
* **values**
* **keywords**
  + **inherit,**
* **numbers**
* **measurements**
  + length units
    - font relative
      * em, ex, ch, rem
    - viewport percentage
      * vw, vh,vmin, vmax
    - absolute lengths
      * cm,mm,q, in pt, pc, px
  + angle units
    - deg, grad, rad, turn
  + duration units
    - s, ms
  + frequency units
    - hz, khz
  + resolution units
    - dpi, dpcm, dppx
* **percentages**
* **URLs and URIs**
* **Colors**
  + Rgb( , , ), #rgb,rgba, hsl, hsla
* **Strings**
* **Functions**
  + calc(), attr(), count(), linear-gradient(), translate(), scale(), rotate(), etc.

# JAVASCRIPT CLIENT SIDE SCRIPTING

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