What is HTML?

* Stands for Hypertext Markup Language
* Used to create web pages

\*\* A website is a collection of web resources.

What is HTML’s role in modern web development?

* Structure and Content

ASPECTS OF A MODERN WEB PAGE

* Structure and Content
* Presentation or Aesthetics – layout, alignment, colors, fonts
* Behavioral – how it interacts with viewers

Who invented HTML?

* Time Berners Lee in 1989

Who oversees the development of HTML?

* W3C

What are the versions of HTML?

* HTML 1.0 1989
* HTML 2.0 1995
* HTML 3.0
* HTML 3.2
* HTML 4.0 1997
* HTML 4.1 1999
* HTML 5 2014, triggered by the rise of mobile devices
* HTML 5.1 2016

\*\* XHTML – Extensible Hypertext Markup Language

\*\* XML – was not prioritized by developers because of the very strict syntax

\*\* WHATWG (Ian Hickson)

Which documents specify the HTML standars?

* W3C

What is the syntax of HTML?

* HTML Syntax
* XHTML Syntax

Parts:

* Byte Order Mark (can be ignored)
* Any number of comments/space characters
* Doctype – it tells the browser to render the document using standard mode (which is the same for all browsers); if ignored, browsers will render the document using quirks mode (which is the non-standard mode)

e.g. <!DOCTYPE html>

Strict – for structure and content

Transitional – deprecated elements can be used

Framset – not used nowadays anymore, considered obsolete

* Any number of comments/space characters

e.g. <!------HTML Comment---->

* Root Element in the form of <html> element

- metadata (head)

- body

tag name

|

e.g. <title> Sample Document <title>

| | |

start tag content end tag

attribute

|

<meta charset = “UTF-8”>

|

attribute name

\*\*Alt attribute is required for images

* Character entity reference

e.g. &amp - ampersand

&lt - less than

&gt - greater than

&#1234

{instead of using **t < p > s**, use t&lt;p&gt;s}

\*\*Elements can be empty or void; it has no closing tag

e.g. <br>

HTML5 – collection of technologies

Strict – deprecated elements can’t be used

Loose/Transitional – deprecated elements can be used

Content Model – what it can contain

e.g. a paragraph cannot contain a paragraph inside

a paragraph cannot contain a list

Tag Omission

Content Attributes

Global Attributes – applicable to all elements

ARIA Role Attributes

DOM Interface – used to let a script gain access

e.g. interface HTMLParagraphElement : HTMLElement {}

Metadata Element – contain meta information about the document

Root Element – topmost element in the document

1. General Attributes

2. Element-Specific Attributes

3. Data-\* Attributes

4. Role, Aria-\* Attributes

WAI – Web Accessibility Initiative

WAI - ARIA

HTML Elements:

html

head

title, base, link, meta, style (title is for documentation; base is helpful when organizing)

body

article, aside, nav, section

header, footer

main

address

div (general division for large block)

h1, h2, h3, h4, h5, h6

p

hr (thematic break)

pre (pre-formatted text)

blockquote (citation of large blocks)

ol ul (numbers are automatically generated)

li

dl (description list)

figure

figurecaption

a

em, strong, small, s

citeq (citation of small blocks)

dfn, abbr (defining instance)

ruby, rb, rc, rtc, rp (for Asian languages)

data, time (machine-readable time)

code, var, samp, kbd

sup, sub (superscript and subscript)

i, b, u, mark

bdi, bdo (right to left, left to right)

span (generic divider for inline text)

br, wbr (break opportunity)

ins, del (for editing in the document)

table

caption

colgroup, col

thread

tr, td, th

form

label

input

button

select, datalist

fieldset

details, summary (interactive content)

picture

img

iframe

embed

object

param

audio, video

source, track (source is selected based on the characteristics of the device;

for responsiveness; track is for subtitles/description)

map

area

math (for mathematical notations)

svg (scalable vector graphics)

canvas

script, noscript

template (basically a model structure, not displayed automatically and

can be used for generating)