HTML

**Hypertext Markup Language**

* Language used to mark up documents(ie web pages) in the world wide web
* HTML was used to specify the STRUCTURE and CONTENT of web pages as well as their PRESENTATION
* Modern web development practice, however, uses HTML solely for semantic specification of web page structure and content, with presentational aspects being delegated to style sheets
* Initially developed at CERN then the IETF then the W3C, and then also the WHATWG

Version history

* Pre-standardization
  + HTML Tags, by Tim Berners-Lee, late 1991
  + HTML Internet Draft, by Tim Berners – Lee and Dan Connolly, published by IETF in mid-1993
  + HTML + (Hypertext Markup Format) Internet Draft, by Dave Raggett, late 1993
* Standards
  + HTML 2.0(RFC 1866,November 1995)
    - Supplemental RFCs
      * Form Based File Upload (RFC 1867,Nov 1995)
      * HTML Tables(RFC 1942, May 1996)
      * Client-Side Image Maps (RFC 1980, Aug 1996)
      * Internationalization(i18n) of HTML (RFC 2070,Jan 1997)
  + HTML 3.2(W3C Recommendation Jan 1997)
  + HTML 4.0(W3C Recommendation Dec 1997)
  + HTML 4.01(W3C Recommendation Dec 1999)
    - Introduced deprecation of Presentational elements and attributes in favor of style sheets
    - Strict, Transitional, Frameset DTDs
  + XHTML
    - 1998 standardized
    - Reformulation of HTML in XML(extensible Markup language)
      * Intended to facilitate the introduction of new HTML elements and/or attributes, provide interoperability between HTML and XML-based systems, and leverage the use of XML tools in creating, editing and parsing HTML
      * Sought to move the Internet content-development community from the days of malformed, non-standard HTML markup into the well-formed, valid world of XML
    - XHTML 1.0(W3C Recommendation Jan 2000)
    - XHTML 1.1 Module Based XHTML(W3C Recommendation May 2001)
  + HTML 5
    - Arose from the effort to evolve HTML (instead of replacing it) to address backward compatibility issues that hindered the adoption of XHTML, as well as to address the emerging needs of modern web applications
    - Work on HTML 5 was initially undertaken by the WHATWG (led by Apple, Mozilla and Opera) in 2004, with the W3C signifying interest to participate in the effort in 2006, the first draft of HTML 5 was published in 2008 ( edited by Ian Hickson)
    - HTML 5 incorporated specifications from HTML 4 , XHTML, and DOM(Document Object Module), and included various extensions of existing APIs and introduced new APIs as well.
  + HTML 5(W3C Recommendation, October 2014)
  + HTML 5.1(W3C Recommendation, November 2016)
  + HTML 5.2(W3C Recommendation, December 2017)
  + HTML Living Standard (WHATWG)
  + Differences Between HTML 4 and HTML 5
    - (Changed elements, new attributes…)

**HTML Document Structure**

* Version Information (i.e. DOCTYPE)
* Root element ( html )
  + Declarative header section containing document meta data, delimited by the head element
    - head, title, base, link, meta, style, styling and scripting
  + document body containing the document actual content delimited by either body element or the frameset element (obsolete)

HTML Document Components

* DOCUMENT TYPE DECLARATION (DOCTYPE)
  + HTML 4.01 DOCTYPES
    - Taste
      * Strict
      * Transitional
      * Frameset
  + XHTML 1.0 DOCTYPES
  + HTML 5 DOCTYPE
* Elements (HTML 4.01, XHTML 1.0,HTML 5)
  + Tags
  + Content
    - Content Models
      * Flow content
      * Heading content
      * Palpable content
    - Void Elements
      * No content
      * Images, input, link
  + Attributes and Attribute Values ( HTML 4.01,XHTML 1.0,HTML 5)
    - Global Attributes
      * Note: All attribute names on HTML elements in the HTML documents get ASCII-lowercase and automatically so the restriction on ASCII uppercase letters doesn’t affect such documents
    - Custom Non-visible Data Attributes
      * Bootstrap
    - WAI-ARIA Attribute
    - Element-Specific Attributes
  + MathMC(Mathematical Markup language),SVG(Scalable Vector Graphics)
* Character Reference
  + Representation of characters that are not available on keyboard
* COmments