Introduction in HTML

Topics

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Introduction to Hypertext

- HTML: Hypertext Markup Language
- Hypertext …
  - The hypertext pages are interconnected by hyperlinks, typically activated by a mouse click, keypress sequence or by touching the screen.
  - links within and among Web documents
  - connect one document to another
- Hypertext is not just flat text with highlights or paragraphs omitted during display, but rather, the text is hyper-structured with hyperlinks or other structures embedded inside a page, including hidden search words, to control the display and connection with other pages or hypertext nodes.

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Origins of HTML

- HTML is based on SGML (Standardized General Markup Language)
- HTML standards are developed under the authority of the World Wide Web Consortium (W3C)
  - http://www.w3c.org
- HTML is the set of "markup" symbols or codes inserted in a file intended for display on a World Wide Web browser.
- The markup tells the Web browser how to display a Web page's text, images, sound and video files for the user.

HTML Documents

- HTML documents are text documents
  - We use simple ASCII text files
  - Html file extensions: .html or .htm
- HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like <html>).
  - HTML tags most commonly come in pairs like <h1> and </h1>
  - although some tags represent empty elements and so are unpaired, for example <img>
- We can create html documents using:
  - Text editor software
  - We can also use HTML Editors - "WYSIWYG"

HTML Document Structure

- The HTML document is divided into two major parts:
  - HEAD: contains information about the document:
    - Title of the page (which appears at the top of the browser window)
    - Meta tags: used to describe the content (used by Search engines)
    - JavaScript and Style sheets generally require statements in the document Head
  - BODY: Contains the actual content of the document
    - This is the part that will be displayed in the browser window
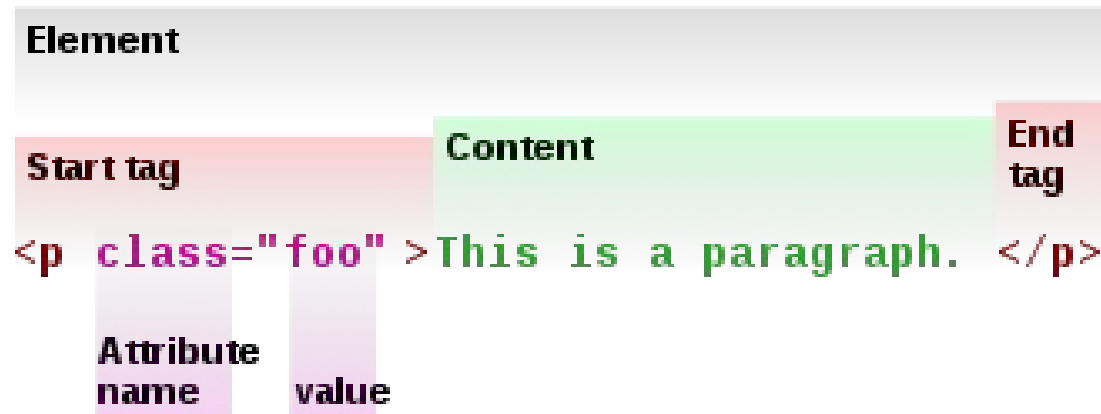
Sample HTML Document

- <HTML>

  <HEAD>
     <TITLE> My web page </TITLE>
  </HEAD>

  <BODY>
  Content of the document
  </BODY>

  </HTML>

HTML Tags

- All HTML tags are made up of a tag name and sometimes they are followed by an optional list of attributes which all appear between angle brackets < >

- Nothing within the brackets will be displayed by the browser (unless the HTML is incorrectly written and the browser interprets the tags as part of the content)

- Attributes are properties that extend or refine the tag's functions

Basic Syntax

- Most (but not all!) HTML tags have a start tag and an end tag:
  - <H1>Hello, world!</H1>
- Basic Document Structure
  - header: information about the page, e.g. the title.
  - body: the actual content of the page.
- Document starts with
  - <HTML> and ends with </HTML>
- Standalone tags
  - There are a few HTML tags which do not use an end tag and are used for standalone elements on the page:
  - <img>   to display an image
  -
          Line break

HTML Tags Attributes

- Attributes are added within a tag to extend a tag's action.
- You can add multiple attributes within a single tag.
- Attributes belong after the tag name; each attribute should be separated by one or more spaces.
- Most attributes take values, which follow an equal sign "=" after the attribute's name.
- Values are limited to 1024 characters in length.
  - <body bgcolor="khaki" text="#000000" link="blue" vlink="brown" alink="black" >

Free space in HTML document

- This is Information which the browser will ignore:
  - Tabs
  - multiple spaces will appear as a single space
  - multiple new lines will appear as a single space
  - Example:
    - "Hello,
      How are you?"

      The browser will ignore the blanks and new line:

      Hello, How are you?
  - When we want to do multiple space or empty lines we need to you special tags.

HTML comments

- Browser will NOT display text in between
  - `<!--  This is a comment        -->`
  - `<!--  This is another`
  - ` comment`

    `-->`
  - I. E. uses the following tag as a comment:
    - `<comment>   this a comment    </comment>`

HTML Versions

- HTML is an evolving language. It doesn't stay the same for long before a revised set of standards and specifications are brought in to allow easier creation of prettier and more efficient sites.
- Since the early days of the web, there have been many versions of HTML:
  - HTML, HTML 2.0, HTML 3.2, HTML 4.01, XHTML, HTML5
- W3C announced that it would not be creating new versions of HTML, and would begin to focus on extensible HTML or XHTML. They recommend Web designers use HTML 4.01 for their HTML documents.

HTML Document Type

- The HTML !DOCTYPE tag is the first thing that every correct HTML document should contain. The objective of this tag is to tell the browser what kind of document it is about to process.

- A valid HTML document declares what version of HTML is used in the document. The document type declaration names the document type definition (DTD) in use for the document.

- The <!DOCTYPE> declaration must be the very first thing in your HTML document, before the <html> tag.

- Some examples for DOCTYPE
  - There are three different <!DOCTYPE> declarations in HTML 4.01. In HTML5 there is only one: <!DOCTYPE html>
  - HTML 4.01 Strict - <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
  - XHTML 1.0 Transitional - <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

- Table of all HTML elements, and what Doctype each element appears in : http://www.w3schools.com/tags/ref_html_dtd.asp

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Thank You