

HTML5

Basics

- ❖ Hyper Text Markup Language is a markup language for describing web pages.
- ❖ HTML is set of markup tags. It is described by HTML tags and each tag describes different document content.
- ❖ HTML is a language, in other word one computer speak with other computer over internet. It means HTML is spoken by two computers, first one is Client and second one is Server.
- ❖ Web browser are used to read HTML documents and display them. It does not display html tags but use them to determine how to display document.

Web Central

- Usage
 - *Accessed by billions*
 - *In many languages*
 - *Vital for information sharing, entertainment, education, commerce*
- Technology
 - *Common, pervasive, and interoperable*
 - *Internationalized*
 - *Widely used by developers*
 - *Linked sites and linked data*

HTML5: Cornerstone of the Platform

- Reach multiple devices
Desktop, mobile, tablet, TV
- Powerful and modular
Documents, multimedia, interactivity
- Multi-application
eBooks, user interfaces, games

The Open Web Platform

- **APIS:** Geolocation, gyroscopes, near-field communications (NFC), cameras, address book, linked data, ...
- **Rich media:** Audio and video, vectorial images, graphics, animations, high-quality typography, ...
- **Cross-device:** screens of all sizes, touch, keyboards, voice, vibrations, beeps, ...
- **Communications:** client-server, real-time, peer-to-peer, sockets, ...
- **Society:** privacy, security, multilingual, accessibility

Rapidly Growing Support Cross-Device, Cross-Platform

Major browsers

IE9+, FF4+, Safari5+, Opera11+, Chrome10+, Blackberry Browser, Silk

Platforms

iOS, Android, ChromeOS, BlackberryOS, Symbian, Windows Mobile 7.5+

Libraries

Webkit (Google, Apple, etc.), Gecko (Mozilla), Trident (Microsoft), Presto (Opera)

Semantic Markup

- What is “Semantic” markup
- Elements that have been added
- Elements that have been changed
- Elements that have been deprecated

What is “Semantic” Element

- A semantic element clearly describes its meaning to both the browser and the developer.
- Examples of **non-semantic** elements: <div> and - Tells nothing about its content.
- Examples of **semantic** elements: <form>, <table>, and - Clearly defines its content.

Getting Going

- Doctype greatly simplified

<DOCTYPE html>

Structural Elements

- `<header>`
- `<hgroup>`
- `<footer>`
- `<article>`
- `<section>`
- `<aside>`
- `<nav>`

<header> & <hgroup>

- Header theadertypically first element on page
- Fat? Use hgroup
- Header can be in Sections as well
- The <hgroup> element is used to group a set of <h1> to <h2> elements, when a heading has multiple levels

```
<hgroup>
<header>
<h1>The Matrix</h1>
<h2>Beyond Science Fiction</h2>
</header>
</hgroup>
```

<header> & <footer>

- Nearest ancestor sectioning content
- More than one per page
- Contains
- Info about the section
- Who wrote it
- Copyright
- Etc.

<article>

- Self-contained document, page, etc.
- In theory, could be independently distributed
 - Forum post
 - Blog post
 - Article
 - Individual email
 - Comments

<section>

- Sections page into subject areas
- Sections an article
- Does not create a stand alone document

```
<article>
<h1>The Matrix</h1>
<section>
<h2>The story</h2> <p>A man discovers....</p>
</section>
<section>
<h2>The Philosophy</h2> <p> The underlying theory of The Matrix is...</p>
</section>
</article>
```

<aside>

- Sidebars
- Navsections
- Pull quotes

<nav>

- Used to mark navigation sections
- Not
 - Every link
 - List of sponsored links
 - Search results

“Primarily intended for sections that consist of major navigation links.”

Additional Elements

- Mark
- Time

<mark>

- Used to highlight a section of text

“When used in the main prose of a document, it indicates a part of the document that has been highlighted due to its likely relevance to the user’s current activity”

<time>

- Used to demark time
- Used to provide unambiguous date/time in universal format

<time datetime=2013-07-10T13:30-05:00>1:30 pm on July 10, 2013</time>

Changed Elements

- <address>
- <cite>
- <dl>
-
- <hr>
-
- <s>
- <small>
-
- <u>

<address>

- For contact details of the author not for postal addresses
- New: multiple in one document –one for each <article>
- Can be email, postal, or any other address

<address>

Narendra Modi

@nmodi

nmodi@gmail.com

</address>

<cite>

- Technically, no longer used to mark up a name of a speaker
- Controversial
- The <cite> tag defines the title of a work (e.g. a book, a song, a movie, a TV show, a painting, a sculpture, etc.)

<dl>

- Now expended to cover any name/value groups

<dl>

<dt>Vinay</dt>

<dd>Vijay</dd>

<dt> Vaibhav</dt>

<dd>Vinu</dd>

</dl>

 & <i>

- Use when you are subtly changing the meaning of a statement
- It renders as emphasized text.
- Use <i> when you want a technical term, a ship name, a thought, or some other prose “whose typical typographic presentation is italicized”
- Emphasized text

`<hr>`

- Used to indicate a paragraph level thematic break
- Almost, but not quite, obsolete
- Used to create a horizontal rule

- The tag defines an ordered list. An ordered list can be numerical or alphabetical.
- You can now use type in the ol header
 - ```
<ol type="I">
 Coffee
 Tea
 Milk

```
- You can now use start in the ol header
  - ```
<ol start = 5>
```
- Reversed reverses the count
 - NB: Not yet implemented in any browser!

<S>

- Was used to indicate a strike through
- Still used to indicate content that is
 - no longer accurate
 - no longer relevant

<small>

- No longer means make the print small
- Now used for “small print” as in legal documents

- indicates importance
- indicates bold without indicating importance

The element “represents a span of text in which attention is being drawn for utilitarian purposes without conveying any extra importance and with no implication of an alternative voice or mood...”