

HTML

# What is HTML?

- HTML is a language for describing web pages. With
- HTML you can create your own Web site.
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- HTML is a **markup** language
- A markup language is a set of markup **tags**
- The tags **describe** document content
- HTML documents contain HTML **tags** and plain **text**
- HTML documents are also called **web pages**

# HTML Versions

Version	Year
HTML	1991
HTML+	1993
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML 1.0	2000
HTML5	2012
XHTML5	2013

# HTML Tags

- HTML markup tags are usually called HTML tags
- HTML tags are keywords (tag names) surrounded by **angle brackets** like <html>
- HTML tags normally **come in pairs** like <b> and </b>
- The first tag in a pair is the **start tag**, the second tag is the **end tag**
- The end tag</> is written like the start tag<>, with a **forward slash** "/" before the tag name
- Start and end tags are also called **opening tags** and **closing tags**

# Example Explained

- `<tagname>content </tagname>`
- OR
- The DOCTYPE declaration defines the document type
- The text between `<html>` and `</html>` describes the web page
- The text between `<body>` and `</body>` is the visible page content
- The text between `<h1>` and `</h1>` is displayed as a heading
- The text between `<p>` and `</p>` is displayed as a paragraph

# What Is XHTML?

- XHTML stands for Extensible **Hypertext Markup Language**
- XHTML is almost identical to HTML 4.01
- XHTML is a stricter and cleaner version of HTML 4.01
- XHTML is HTML defined as an XML application
- XHTML is supported by all major browsers.

# The Most Important Differences from HTML

- Document Structure
- XHTML DOCTYPE is **mandatory**
- The XML namespace attribute in <html> is **mandatory**
- <html>, <head>, <title>, and <body> is **mandatory**
- XHTML Elements
- XHTML elements must be **properly nested**
- XHTML elements must always be **closed**
- XHTML elements must be in **lowercase**
- XHTML documents must have **one root element**
- XHTML Attributes
- Attribute names must be in **lower case**
- Attribute values must be **quoted**
- Attribute minimization is **forbidden**

# XHTML Elements Must Be Properly Nested

- In HTML, some elements can be improperly nested within each other, like this:
- `<b><i>This text is bold and italic</b></i>`
- In XHTML, all elements must be properly nested within each other, like this:
- `<b><i>This text is bold and italic</i></b>`



# XHTML Elements Must Always Be Closed

- This is wrong:

`<p>This is a paragraph`

`<p>This is another paragraph`

- This is correct:

`<p>This is a paragraph</p>`

`<p>This is another paragraph</p>`

# Empty Elements Must Also Be Closed

- This is wrong:

A break: `<br>`

A horizontal rule: `<hr>`

An image: ``

- This is correct:

A break: `<br />`

A horizontal rule: `<hr />`

An image: ``

# XHTML Elements & Attribute Names Must Be In Lower Case

- This is wrong:  
`<html><body>`  
`<table WIDTH="100%">`  
`</HTML></BODY>`
- This is correct:  
`<html><body>`  
`<table width="100%">`  
`</html></body>`

# Attribute Values Must Be Quoted & Minimization Is Forbidden

- This is wrong:  
    <table width=100%>  
    <input checked>  
    <input readonly>  
    <input disabled>  
    <option selected>
- This is correct:  
    <table width="100%">  
    <input checked="checked">  
    <input readonly="readonly">  
    <input disabled="disabled">  
    <option selected="selected">

# How to Convert from HTML to XHTML

- Add an XHTML `<!DOCTYPE>` to the first line of every page
- Add an `xHTML` attribute to the `html` element of every page
- Change all element names to lowercase
- Close all empty elements
- Change all attribute names to lowercase

# HTML5

What's new in html5

- ✓ New Elements
- ✓ New Attributes
- ✓ Full CSS3 Support
- ✓ Video and Audio
- ✓ 2D/3D Graphics
- ✓ Local Storage
- ✓ Local SQL Database
- ✓ Web Applications

# What is HTML5?

- HTML5 will be the new standard for HTML.
- The previous version of HTML, HTML 4.01, came in 1999. The web has changed a lot since then.
- HTML5 is still a work in progress. However, the major browsers support many of the new HTML5 elements and APIs.

# HTML5 - New Features

Some of the most interesting new features in HTML5:

- HTML5 - New Features
- Some of the most interesting new features in HTML5:
- The <canvas> element for 2D drawing
- The <video> and <audio> elements for media playback
- Support for local storage
- New content-specific elements, like <article>, <footer>, <header>, <nav>, <section>
- New form controls, like calendar, date, time, email, url, search



# Browser Support for HTML5

- HTML5 is not yet an official standard, and no browsers have full HTML5 support.
  - But all major browsers continue to add new HTML5 features to their latest versions.
1. Safari
  2. Chrome
  3. Firefox
  4. Opera
  5. Internet Explorer

