Web Technology

SHIV NADAR
UNIVERSITY
CHENNAI

HTML - Element

Department of Computer Science and Engineering
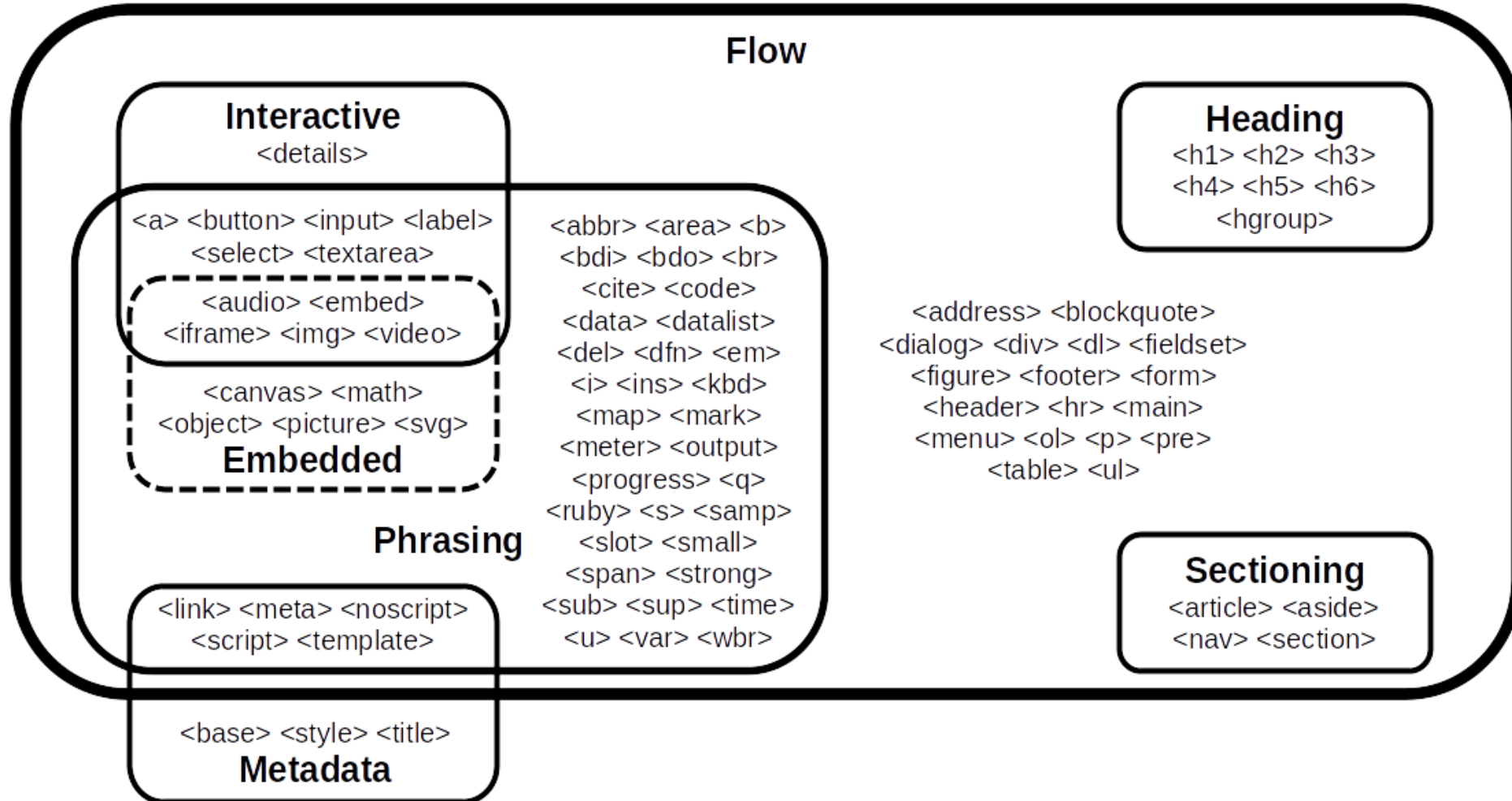**Shiv Nadar University**

Last Class Summary

- **Overview – Client-side Programming**
- **HTML, CSS, Javascript, Browsers**
- **Hypertext**
- **Markup**
- **Language**
- **HTML Elements**
- **HTML Tags**
- **HTML Attributes**
- **Best Practices**

K1

HTML Editing

- **HTML Files – Text Editor**
- **File extension - .html or .htm**
- **Best Practice - Filename to be based on functionality**
  - **Eg: Main web page (Homepage) - index.html**
- **HTML errors – Not fatal – They do not crash the program**

K2

HTML Elements

HTML element content categories

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Flow

Interactive
<details>

<a> <button> <input> <label>
<select> <textarea>

<audio> <embed>
<iframe> <img> <video>

<canvas> <math>
<object> <picture> <svg>
Embedded

Phrasing

<abbr> <area> <b>
<bdi> <bdo>
<cite> <code>
<data> <datalist>
<del> <dfn> <em>
<i> <ins> <kbd>
<map> <mark>
<meter> <output>
<progress> <q>
<ruby> <s> <samp>
<slot> <small>
<span> <strong>
<sub> <sup> <time>
<u> <var> <wbr>

<link> <meta> <noscript>
<script> <template>

<base> <style> <title>
Metadata

Heading
<h1> <h2> <h3>
<h4> <h5> <h6>
<hgroup>

<address> <blockquote>
<dialog> <div> <dl> <fieldset>
<figure> <footer> <form>
<header> <hr> <main>
<menu> <p> <pre>
<table>

Sectioning
<article> <aside>
<nav> <section>

<body> <caption> <col> <colgroup> <dd> <dt> <figcaption> <head>
<html> <legend> <optgroup> <option> <rp> <rt> <source>
<summary> <tbody> <td> <tfoot> <th> <thead> <tr> <track>

K1

HTML !DOCTYPE

- **Syntax for HTML5**

<!DOCTYPE html>

- **Indicates browser – HTML file**
- **Syntax may vary on version**
- **Empty element**
  - **No content**
  - **No ending tag**

K2

HTML <html>

- **Syntax**

<html>

   content

</html>

- **<html> - root element**
- **Contains all other elements – except !DOCTYPE**

HTML <head>

- **<head> element – between <html> and <body>**
- **<head> - metadata**
- **Information generally not rendered**
- **Metadata tags -** <title>, <style>, <meta>, <link>, <script>, <base>
- **Best Practice – When opening a tag, have a "tab space" for each line until you close the tag. It helps in the readability of your HTML document.**

K2

HTML <title>

- **<title> - Set the title of the webpage.**
- **Generally used in every HTML document.**
- **Must be placed inside <head>.**
- **One <title> per webpage.**

K2

HTML <body>, <p>, comments

- **<body> - document content**
- **Text, Paragraph, Formatting, Image, Hyperlinks, Tables, Lists, Frames**

- **Comment syntax - <!-- content -->**
- **Best Practice - Give a comment describing a web page as a first line of your HTML document.**

- **<p> - Paragraph**
- **Browser renders a new line before and after <p> element**

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HTML Text Formatting

- **<strong> or <b>** - Bold text
- **<u>** - Underline
- **<em> or <i>** - Emphasized text (Italic)
- **<mark>** - Marked text
- **<small>** - Smaller text
- **<del>** - Deleted text represented as strikethrough
- **<ins>** - Inserted text represented as underline
- **<sub>** - Subscript text
- **<sup>** - Superscript text

- **<i>** and **<b>** are deprecated

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HTML Headers

- Default text formatting
- **<h1> to <h6> elements**
- **h1** – Largest
- **h6** - Smallest
- Browser renders and decides the size
- Can vary significantly between browsers

K2

HTML Hyperlinks

- **\<a\> element (Anchor)**
- **Mandatory attribute - href**
- **Syntax:**
  - **\<a href="address"\>content\</a\>**
- **All links – underlined**
- **An unvisited link – blue**
- **A visited link – purple**
- **An active link - red**

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HTML Internal Linking

- **Linking to a location within a webpage**

1. **Set location to go**
   - **Syntax: **

2. **Refer using href as usual.**
   - **Syntax: content**

HTML Images, Special Character, <hr>,

- **<img> element**
- **Mandatory attribute - src**

- **Special characters like math characters**
  - **Added in code form**
  - **Syntax: &code;**

- **
 element**
- **Line break.**

- **<hr> element**
- **Adds a horizontal line/rule**
- **Both <hr> and
 - No closing tag**

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HTML Lists

- **List - element – Closing tag optional**
- **Unordered List - element - Bullets**
- **Ordered List - element – Numbers**
- **Each <ul> or <ol> elements consist of 'n' number of <li> elements**
- ** and <ol> elements can be nested**
- **Newline after every closed list**

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HTML Tables

- **<table> - table element**
  - **<caption> - caption element**
  - **<tr> - row element**
    - **<td> - data element**
  - **<colgroup> - column group element – styling group of columns**
    - **<col> - column to be styled**
  - **<thead> - table header element**
    - **<th> - table head element**
  - **<tbody> - table body element**
    - **<td> - data element**
  - **<tfoot> - table foot element**
    - **<td> - data element**

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HTML iFrames

- **Group multiple HTML files**

- **<iframe> element – inline frame**

- **Styling – Attributes/ CSS files**

- **Syntax:**

  `<iframe src="HTML file" title="Title for the HTML file"></iframe>`

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HTML Example

K3

Best Practices

1. Use HTML tags with the same case (preferably lower case).

2. Filename to be based on functionality.

3. When opening a tag, have a "tab space" for each line until you close the tag. It helps in the readability of your HTML document.

4. Give a comment describing a web page as a first line of your HTML document.

Summary

- **Editing HTML files**
- **List of HTML Element**
- **!DOCTYPE HTML**
- **\<html>, \<head>, \<title>, \<body>, \<p>, Comment Elements**
- **Text Formatting**
- **HTML Headers, and Hyperlinks**
- **HTML Images, Special Character, \<hr>, \
**
- **HTML Lists, Tables, iFrames**
- **Best practices**

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References

1. Paul J Deitel, Harvey M Deitel, and Abbey Deitel, "Internet and the world wide web: How to program," Pearson, Fifth Edition, 2012.

THANK YOU