



## **BCSE203E- Web Programming**

### **Activity -4**

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*Trace the output for the following elements and infer the similarities and differences*

#### 1. Div and span

Screenshot code	Screenshot output
<pre>&lt;!DOCTYPE html&gt; &lt;html&gt; &lt;head&gt;   &lt;title&gt;Div and Span Example&lt;/title&gt;   &lt;style&gt;     .div-box {       border: 2px solid blue;       padding: 10px;       margin: 10px;     }     .span-highlight {       color: red;       font-weight: bold;     }   &lt;/style&gt; &lt;/head&gt; &lt;body&gt;   &lt;div class="div-box"&gt;     This is a div container.     &lt;span class="span-highlight"&gt;This is a span element inside a div.&lt;/span&gt;   &lt;/div&gt;   &lt;div class="div-box"&gt;     Another div container.     &lt;span&gt;This span has no styling applied.&lt;/span&gt;   &lt;/div&gt; &lt;/body&gt; &lt;/html&gt;</pre>	<div>This is a div container. <b>This is a span element inside a div.</b></div> <div>Another div container. This span has no styling applied.</div>

Div – Block-level element used for structuring and sectioning content.  
 Span – Inline element used for styling or grouping small portions of text  
 Inference - Divs organize layouts; spans apply styles within existing text flow.

## 2. Div and section

Screenshot code	Screenshot output
<pre> &lt;!DOCTYPE html&gt; &lt;html&gt; &lt;head&gt;   &lt;title&gt;Div vs Section&lt;/title&gt;   &lt;style&gt;     .container {       border: 2px solid blue;       padding: 10px;       margin: 10px;     }     .thematic {       border: 2px solid green;       padding: 10px;       margin: 10px;     }   &lt;/style&gt; &lt;/head&gt; &lt;body&gt;   &lt;div class="container"&gt;     &lt;h2&gt;Div Example&lt;/h2&gt;     &lt;p&gt;This is a generic block container for grouping content.&lt;/p&gt;   &lt;/div&gt;   &lt;section class="thematic"&gt;     &lt;h2&gt;Section Example&lt;/h2&gt;     &lt;p&gt;This defines a thematic grouping of content, such as a chapter or topic.&lt;/p&gt;   &lt;/section&gt; &lt;/body&gt; &lt;/html&gt; </pre>	 <p>The screenshot shows the rendered HTML. It features two distinct sections. The first section, titled 'Div Example', is enclosed in a blue border and contains the text 'This is a generic block container for grouping content.' The second section, titled 'Section Example', is enclosed in a green border and contains the text 'This defines a thematic grouping of content, such as a chapter or topic.'</p>
<p>Div – Generic block-level element for grouping content without semantic meaning.          Section– Block-level element specifically used to define thematic or logical sections of content.          Inference - Use div for styling or generic grouping; use section for semantically meaningful divisions of a document.</p>	

## 3. Paragraph and article

Screenshot code	Screenshot output
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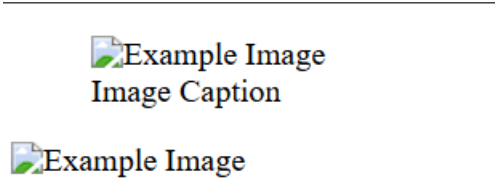
<pre> &lt;!DOCTYPE html&gt; &lt;html&gt; &lt;head&gt;   &lt;title&gt;Paragraph vs Article&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;p&gt;This is a single paragraph,       part of the document's main content.&lt;/p&gt;   &lt;article&gt;     &lt;h2&gt;Article Example&lt;/h2&gt;     &lt;p&gt;This is the first paragraph       of an article.&lt;/p&gt;     &lt;p&gt;This is the second paragraph,       expanding on the topic.&lt;/p&gt;   &lt;/article&gt; &lt;/body&gt; &lt;/html&gt; </pre>	<p>This is a single paragraph, part of the document's main content.</p> <h2>Article Example</h2> <p>This is the first paragraph of an article.</p> <p>This is the second paragraph, expanding on the topic.</p>
<p>Paragraph– Used for grouping a block of text into smaller, readable units.  Article– Represents a self-contained, standalone piece of content like an article, blog post, or news story.  Inference - Use p for individual paragraphs. Use article for self-contained, reusable content blocks.</p>	

#### 4. Navigation and anchor

Screenshot code	Screenshot output
<pre> &lt;!DOCTYPE html&gt; &lt;html&gt; &lt;head&gt;   &lt;title&gt;Navigation vs Anchor&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;nav&gt;     &lt;a href="home.html"&gt;Home&lt;/a&gt;     &lt;a href="about.html"&gt;About&lt;/a&gt; </pre>	<p><a href="#">Home</a> <a href="#">About</a> <a href="#">Contact</a></p> <p>Learn more on our <a href="#">FAQ page</a>.</p>

<pre>         &lt;a href="contact.html"&gt;Contact&lt;/a&gt;       &lt;/nav&gt;       &lt;p&gt;Learn more on our &lt;a href="faq.html"&gt;FAQ page&lt;/a&gt;.&lt;/p&gt; &lt;/body&gt; &lt;/html&gt; </pre>	
<p>Navigation– Groups multiple navigation links and adds semantic meaning for menus or navigation bars.</p> <p>Anchor – Represents individual hyperlinks to navigate between pages, sections, or resources.</p> <p>Inference - Use &lt;nav&gt; for organizing navigation links; use &lt;a&gt; for creating individual links.</p>	

## 5. Figure and image

Screenshot code	Screenshot output
<pre> &lt;!DOCTYPE html&gt; &lt;html&gt; &lt;head&gt;   &lt;title&gt;Figure vs Image&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;figure&gt;     &lt;img src="example.jpg" alt="Example Image"&gt;     &lt;figcaption&gt;Image Caption&lt;/figcaption&gt;   &lt;/figure&gt;   &lt;img src="example.jpg" alt="Example Image"&gt; &lt;/body&gt; &lt;/html&gt; </pre>	
<p>Figure– A container for media content (images, videos, charts, etc.) along with its caption.</p> <p>Image– Represents an image or graphic within a webpage.</p> <p>Inference - Use &lt;figure&gt; to group media with a caption (&lt;figcaption&gt;). Use &lt;img&gt; to embed a standalone image without additional semantic structure.</p>	

## 6. Label and legends

Screenshot code	Screenshot output
<pre> &lt;!DOCTYPE html&gt; &lt;html&gt; &lt;head&gt;   &lt;title&gt;Label vs Legend&lt;/title&gt; </pre>	

<pre> &lt;/head&gt; &lt;body&gt;   &lt;form&gt;     &lt;label for="username"&gt;Username:&lt;/label&gt;     &lt;input type="text" id="username" name="username"&gt;   &lt;/form&gt;   &lt;form&gt;     &lt;fieldset&gt;       &lt;legend&gt;Personal Information&lt;/legend&gt;       &lt;label for="fname"&gt;First Name:&lt;/label&gt;       &lt;input type="text" id="fname" name="fname"&gt;       &lt;br&gt;       &lt;label for="lname"&gt;Last Name:&lt;/label&gt;       &lt;input type="text" id="lname" name="lname"&gt;     &lt;/fieldset&gt;   &lt;/form&gt; &lt;/body&gt; &lt;/html&gt; </pre>	
<p>Label – Used to associate text with a specific form input (e.g., text fields, checkboxes).</p> <p>Legends– Provides a caption or title for a group of related form elements, grouped using a &lt;fieldset&gt;.</p> <p>Inference - Use &lt;label&gt; to describe individual inputs. Use &lt;legend&gt; to caption grouped inputs within a &lt;fieldset&gt;.</p>	

## 7. Strong vs bold vs emphasis tag

Screenshot code	Screenshot output
<pre> &lt;!DOCTYPE html&gt; &lt;html&gt; &lt;head&gt;   &lt;title&gt;Strong vs Bold vs Emphasis&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;p&gt;This text is &lt;b&gt;bold&lt;/b&gt; for styling.&lt;/p&gt;   &lt;p&gt;This text has &lt;strong&gt;strong importance&lt;/strong&gt; in meaning.&lt;/p&gt; </pre>	<p>This text is <b>bold</b> for styling.</p> <p>This text has <b>strong importance</b> in meaning</p> <p>This text is <i>emphasized</i> for stress in context.</p>

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<p>This text is  
<em>emphasized</em> for stress in  
context.</p>  
</body>  
</html>
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Strong– Emphasizes text with semantic meaning, indicating importance or seriousness.

Emphasis– Adds semantic emphasis to text, indicating stress or importance in context.

Bold- Makes text visually bold without implying importance or context

Inference - Use <b> for styling, <strong> for semantic importance, and <em> for contextual stress or emphasis.