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

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

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
| ```html
<!DOCTYPE html>
<html>
<head>
    <title>Div vs Section</title>
    <style>
        .container {
            border: 2px solid blue;
            padding: 10px;
            margin: 10px;
        }
        .thematic {
            border: 2px solid green;
            padding: 10px;
            margin: 10px;
        }
    </style>
</head>
<body>
    <div class="container">
        <h2>Div Example</h2>
        <p>This is a generic block
container for grouping content.</p>
    </div>
    <section class="thematic">
        <h2>Section Example</h2>
        <p>This defines a thematic
grouping of content, such as a chapter
or topic.</p>
    </section>
</body>
</html>
``` | **Div Example**<br><br>This is a generic block container for grouping content.<br><br>**Section Example**<br><br>This defines a thematic grouping of content, such as a chapter or topic. |

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.

3. Paragraph and article

Screenshot code	Screenshot output

```
<!DOCTYPE html>
<html>
<head>
    <title>Paragraph vs
Article</title>
</head>
<body>
    <p>This is a single
paragraph,
        part of the document's
main content.</p>
    <article>
        <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>
    </article>
</body>
</html>
```

This is a single paragraph, part of the document's main content.

Article Example

This is the first paragraph of an article.

This is the second paragraph, expanding on the topic.

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.

4. Navigation and anchor

Screenshot code	Screenshot output

<pre><!DOCTYPE html>
<html>
<head>
    <title>Navigation vs
Anchor</title>
</head>
<body>
    <nav>
        <a
href="home.html">Home
        <a
href="about.html">About</pre>
	Home About Contact
	
	Learn more on our FAQ page.

```
        <a
href="contact.html">Contact</a>
    </nav>
    <p>Learn more on our <a
href="faq.html">FAQ page</a>.</p>
</body>
</html>
```

Navigation– Groups multiple navigation links and adds semantic meaning for menus or navigation bars.

Anchor – Represents individual hyperlinks to navigate between pages, sections, or resources.

Inference - Use <nav> for organizing navigation links; use <a> for creating individual links.

5. Figure and image

Screenshot code	Screenshot output
``<!DOCTYPE html>
<html>
<head>
<title>Figure vs Image</title>
</head>
<body>
<figure>
<img src="example.jpg"
alt="Example Image">
<figcaption>Image
Caption</figcaption>
</figure>
<img src="example.jpg"
alt="Example Image">
</body>
</html>```	Example Image Image Caption Example Image

Figure– A container for media content (images, videos, charts, etc.) along with its caption.

Image– Represents an image or graphic within a webpage.

Inference - Use <figure> to group media with a caption (<figcaption>). Use <img> to embed a standalone image without additional semantic structure.

6. Label and legends

Screenshot code	Screenshot output
``<!DOCTYPE html>
<html>
<head>
<title>Label vs Legend</title>```	

Screenshot code	Screenshot output
| ```html
</head>
<body>
    <form>
        <label
for="username">Username:</label>
        <input type="text"
id="username" name="username">
    </form>
    <form>
        <fieldset>
            <legend>Personal
Information</legend>
            <label
for="fname">First Name:</label>
            <input type="text"
id="fname" name="fname">
            <br>
            <label
for="lname">Last Name:</label>
            <input type="text"
id="lname" name="lname">
        </fieldset>
    </form>
</body>
</html>
``` | Username: [_____]<br>┌─ Personal Information ──────<br>First Name: [_____]<br>Last Name: [_____] |
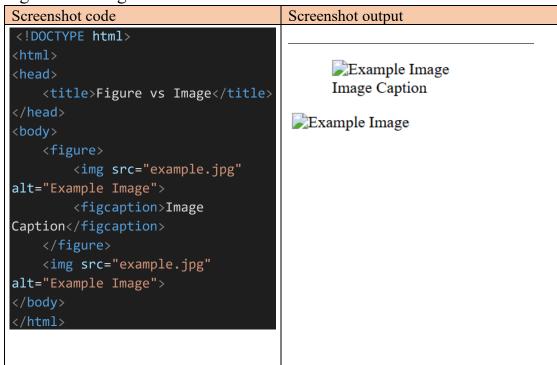
Label – Used to associate text with a specific form input (e.g., text fields, checkboxes).

Legends– Provides a caption or title for a group of related form elements, grouped using a <fieldset>.

Inference - Use <label> to describe individual inputs. Use <legend> to caption grouped inputs within a <fieldset>.

7. Strong vs bold vs emphasis tag

Screenshot code	Screenshot output
| ```html
<!DOCTYPE html>
<html>
<head>
    <title>Strong vs Bold vs
Emphasis</title>
</head>
<body>
    <p>This text is <b>bold</b> for
styling.</p>
    <p>This text has <strong>strong
importance</strong> in meaning.</p>
``` | This text is **bold** for styling.<br><br>This text has **strong importance** in meaning<br><br>This text is *emphasized* for stress in context. |

```
    <p>This text is
<em>emphasized</em> for stress in
context.</p>
</body>
</html>
```

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.