Module II: Basic web elements
Basic HTML Document Object Model (DOM) and its Components

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TLO-5, TLO-6

✓ Identify the HTML Document Object Model (DOM) and its components.

Session Activity

✓ HTML DOM and its components
✓ Apply html tags, formatting, attributes in web page
✓ Apply html List, iframe and Tables in web page
✓ Apply html Links, and Div in web page
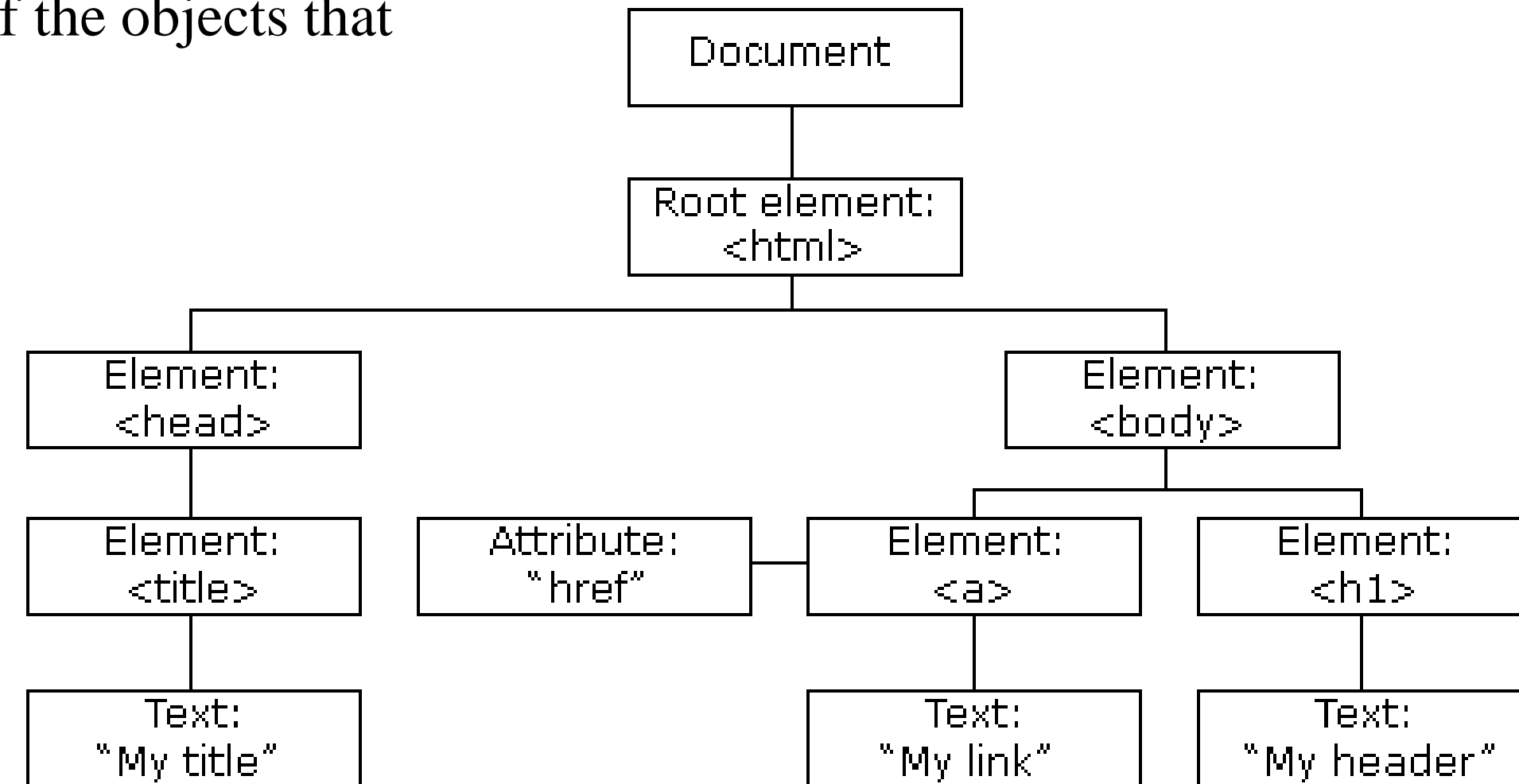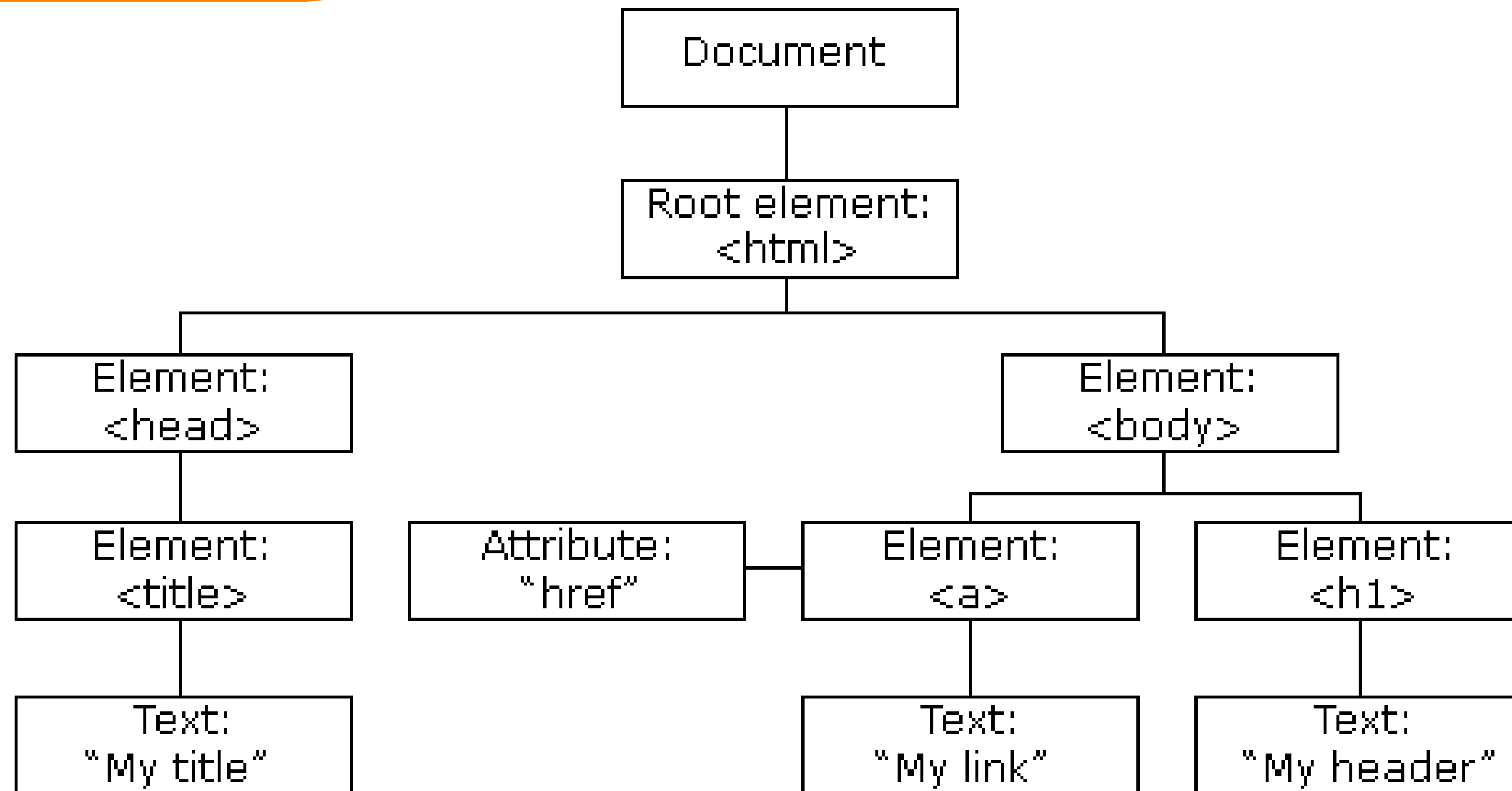✓ Create a basic web page using html tags

Keywords

HTTP, DNS, Web Hosting, Domain Name, Get, Post.

The Document Object Model (DOM) is the data representation of the objects that comprise the structure and content of a document on the web.

The HTML DOM is an Object Model for HTML. It defines:

✓ HTML elements as objects
✓ Properties for all HTML elements
✓ Methods for all HTML elements
✓ Events for all HTML elements

When a web page is loaded, the browser creates a Document Object Model of the page. The HTML DOM model is constructed as a tree of Objects:

An HTML element is defined by a start tag, some content, and an end tag.
Syntex:-

<tagname>Content goes here...</tagname>

 Example:
        <h1> HTML Elements </h1>
        <p> An HTML element is defined by a start tag, some content, and an end tag.</p>

Nested HTML Elements: The HTML element is use inside the another HTML Element is called nested HTML elements.
Example:
        <html> tag contains the <head> and <body>. The <head> and <body> tag contains another elements so it is called nested element.

EXPLORE

https://www.geeksforgeeks.org/html-elements/

Following tags and elements used in the HTML.

1 . <h1> ,<h2> ,<h3> to <h6>
2. <p>
3. <div> and <span>
4. , <i> and<u>
5. ,<ul>and<ol>.
6. <img> , <audio> , <video> and<iframe>
7. <table> <th> , <thead>and<tr>.
8. <form>
9. <label> and <input> [For More details Click Here](#)

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https://www.geeksforgeeks.org/html-introduction/

✓ The <h1> - <h6> tags display headings of different sizes.
✓ The <h1> tag is the largest heading, and <h6> is the smallest.

h1 = heading level 1
h2 = heading level 2
h3 = heading level 3
h4 = heading level 4
h5 = heading level 5
h6 = heading level 6

Example:

<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>

EXPLORE

https://www.dofactory.com/html/h1h6

Formatting elements were designed to display special types of text:

- - Bold text
- - Important text
- <i> - Italic text
- - Emphasized text
- <mark> - Marked text
- <small> - Smaller text
- <del> - Deleted text
- <ins> - Inserted text
- <sub> - Subscript text
- <sup> - Superscript text

Example:-

 - Bold text
 - Important text
<i> - Italic text </i>
 - Emphasized text
<mark> - Marked text </mark>
<small> - Smaller text </small>
<del> - Deleted text </del>
<ins> - Inserted text </ins>
_{- Subscript text}
^{- Superscript text}

EXPLORE

https://www.w3schools.com/html/html_formatting.asp

HTML Attributes

- All HTML elements can have **attributes**
- Attributes provide **additional information** about elements
- Attributes are always specified in **the start tag**
- Attributes usually come in name/value pairs like: **name="value"**

- All HTML elements can have **attributes**
- The href attribute of <a> specifies the URL of the page the link goes to
- The src attribute of <img> specifies the path to the image to be displayed
- The width and height attributes of <img> provide size information for imagesThe alt attribute of <img> provides an alternate text for an image
- The style attribute is used to add styles to an element, such as color, font, size, and more
- The lang attribute of the <html> tag declares the language of the Web page
- The title attribute defines some extra information about an element

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https://www.w3schools.com/html/html_formatting.asp

HTML attributes are the modifier of the HTML elements or tags. Attributes are special words that provide additional information about the elements or attributes.

Syntax:-

<tag attribute_name="attribute_value">Some content...</tag>

Example

✓ Visit MSU Website

href Attribute
We use the <a> tag to define a hyperlink. In the <a> tag, the href attribute specifies the URL of the page the link goes to

EXPLORE

https://www.shiksha.com/online-courses/articles/html-attributes-explained-with-examples/

<img src="img_girl.jpg" width="500" height="600" alt="Girl with a jacket">

src Attribute

We use the <img> tag add an image in an HTML page. The src attribute specifies the image path. We can specify the address of the image inside the double quotes.

src Attributes
src, height, width, alt attribute
style Attribute

The style attribute helps us set the style, such as font, size, color, etc. of the HTML element.
Example:
<p style=" background:lightblue; color:navy;"> Style attribute in HTML .</p>

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https://www.shiksha.com/online-courses/articles/html-attributes-explained-with-examples/

The <div> tag defines a division or a section in an HTML document.

The <div> tag is used as a container for HTML elements - which is then styled with CSS or manipulated with JavaScript.

The <div> tag is easily styled by using the class or id attribute.

Any sort of content can be put inside the <div> tag!

Note: By default, browsers always place a line break before and after the <div> element.

```
<html>
<head>
</head>
<body>
   <div>
      <h2>Introduction to Div tag</h2>
      <p>Div tag is the most commonly used tag for creating layout in HTML.</p>
   </div>
</body>
</html>
```

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HTML div tag (w3schools.com)

The <iframe> tag specifies an inline frame.

An inline frame is used to embed another document within the current HTML document.

Tip: Use CSS to style the <iframe> (see example below).

Tip: It is a good practice to always include a title attribute for the <iframe>. This is used by screen readers to read out what the content of the <iframe> is.

<iframe src="https://www.w3schools.com" title=" W3Schools Free Online Web Tutorials"></iframe>

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HTML iframe tag (w3schools.com)

Implement the below task using html tags in webpage.

1. Design IT Time Table using Table tag.

2. Design a Registration form of at least 10 various input Controls.

Reference

1. *https://www.geeksforgeeks.org/html-course-structure-of-an-html-document/*

2. *https://www.geeksforgeeks.org/html-introduction/*

3. *https://www.w3schools.com/tags/tag_meta.asp*

Thank You

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