**WEB DEVELOPEMENT**

**HTML**

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| Fundamentals/ Basic HTML, Text formatting on Web Pages, incorporate images, Creating hyperlinks, complex image maps, tables and nested tables, Inserting web page, Setting & modifying field properties, Validating HTML |

**OVERVIEW:**

In this virtual internship program, we will learn basics of HTML, Basics of CSS and Basics of Java script with the help of one click kandi kit.

**LEARNING OBJECTIVE**

*1.Able to develop static and dynamic web pages by own.*

*2. Can understand different HTML tags.*

**LEARNING OUTCOME**

1. *Apply the knowledge of web development into working web pages.*
2. Demonstrate various page elements and form elements.

**Fundamentals/ Basic HTML**

HTML is the foundation of every web page on the Internet. It stands for "Hypertext Markup Language" and is used to create the structure and content of web pages. HTML works by using a system of tags to define the different elements of a page.

Here are some fundamental HTML elements:

**Document Type Declaration (DTD):**

At the beginning of an HTML document, you should include the Document Type Declaration to specify the version of HTML you are using. For modern web pages, use the following

**<!DOCTYPE html>**

**HTML Document Structure:**

The basic structure of an HTML document consists of <html>, <head>, and <body> elements. The <html> element wraps the entire document, while the <head> element contains meta-information about the page (e.g., title, character set, etc.). The <body> element contains the visible content of the page.

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| <!DOCTYPE html>  <html>  <head>  <!-- Meta-information and links to CSS and JavaScript files go here -->  <title>Page Title</title>  </head>  <body>  <!-- Page content goes here -->  </body>  </html> |

**Headings:**

HTML provides six levels of headings, ranging from <h1> (the most important) to <h6> (the least important). Headings are used to structure the content of your page.

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| <h1>This is the main heading (h1)</h1>  <h2>This is a subheading (h2)</h2>  <!-- ... -->  <h6>This is the smallest heading (h6)</h6> |

**Paragraphs:**

Paragraphs can be created using the <p> element. It represents a block of text.

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| <p>This is a paragraph.</p> |

**Links:**

Links allow users to navigate between different web pages. They are created using the <a> element and the href attribute, which specifies the target URL.

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| <a href="https://www.example.com">Visit Example.com</a> |

**Images:**

Images can be displayed using the <img> element and the src attribute, which specifies the image file's URL.

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| <img src="path/to/image.jpg" alt="Image Description"> |

**Lists:**

Lists can be ordered (numbered) or unordered (bulleted). Use the <ul> element for unordered lists and <ol> element for ordered lists. List items are represented by the <li> element.

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| <ul>  <li>Item 1</li>  <li>Item 2</li>  </ul>  <ol>  <li>First item</li>  <li>Second item</li>  </ol> |

**Comments:**

Comments in HTML are useful for leaving notes within the code that won't be displayed on the webpage. They begin with <!-- and end with -->.

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| <!-- This is a comment --> |

**Validating HTML**

Validating HTML is the process of checking if your HTML code adheres to the rules and specifications set by the HTML standard. Valid HTML ensures that your web page is correctly interpreted and displayed consistently across different web browsers and devices.

There are two main ways to validate HTML:

1. **W3C Markup Validation Service**: The World Wide Web Consortium (W3C) provides a free online tool called the Markup Validation Service, which allows you to check the validity of your HTML code. Here's how you can use it:
   * Go to the W3C Markup Validation Service website: <https://validator.w3.org/>.
   * Choose the method to validate your HTML: by URL (if your web page is already online) or by direct input (if you want to paste your HTML code).
   * Click on the "Check" button.
   * The validator will process your HTML and display the validation results, indicating any errors or warnings found in your code.
   * Fix the issues reported by the validator and revalidate until no errors remain.
2. **Browser Developer Tools**: Modern web browsers like Google Chrome, Firefox, and others offer built-in developer tools that include HTML validation capabilities. To use this method:

* Open your web page in the browser.
* Right-click on the page and select "Inspect" or press F12 (Windows) / Option + Command + I (Mac) to open the developer tools.
* In the developer tools panel, navigate to the "Console" or "Errors" tab.
* Any HTML errors or issues will be listed here, along with line numbers and descriptions of the problems found.

While browser developer tools can help you identify some issues, using the W3C Markup Validation Service is generally more comprehensive and accurate.

When validating HTML, keep the following tips in mind:

* Make sure to include a proper **<!DOCTYPE>** declaration at the beginning of your HTML document to specify the document type and version.
* Check for unclosed or mismatched tags, as they are common sources of HTML validation errors.
* Use semantic HTML elements to provide meaningful structure and improve accessibility.
* Ensure that all attributes are correctly quoted (either single or double quotes) and properly used for each element.

**REFERENCES**

* <https://kandi.openweaver.com/collections/user-interface/basics-of-html-css-programming>
* <https://www.slideshare.net/ramlalshah1/html-tags-254213680>