

Assignment-1 Title:

“Exploring the Foundations of Web Development using HTML and the World Wide Web”

Problem Statement

The **World Wide Web (WWW)** has transformed how information is shared, accessed, and interacted with globally. As a future computer scientist, it is essential to understand not only the **importance of the web** but also how websites are structured, designed, and developed using **markup languages** such as **HTML**.

In this assignment, you are required to demonstrate your understanding of the **core concepts of web development** by analyzing, comparing, and creating elements that define both **static and dynamic websites**. You will explore how the **World Wide Web operates**, identify the **differences between markup and programming languages**, and apply your knowledge by creating a **basic but well-structured HTML webpage** that showcases your comprehension of these concepts.

Task Requirements

1. Theoretical Exploration

- Discuss the **origin and importance of the World Wide Web** in modern computing and communication.
- Clearly differentiate between **Static Websites** and **Dynamic Websites**, providing at least **two real-life examples** of each.
- Explain the **difference between Markup Languages and Programming Languages**, emphasizing their purposes in web development.

2. HTML Concepts and Structure

- Describe the **role of HTML** as the foundation of web pages.
- Explain the purpose and function of **tags, attributes, and HTML standards**.
- Discuss what **enhancements** have been introduced in modern HTML versions (such as HTML5).
- Illustrate the **basic structure of an HTML document**, explaining each part (e.g., `<!DOCTYPE>`, `<html>`, `<head>`, `<body>`).

3. Practical Implementation

- Create an HTML webpage titled **“My First Web Profile”** using any HTML editor of your choice (e.g., Notepad, VS Code, Sublime Text).
- Your webpage must include the following:
 - Proper **HTML file structure** and use of **semantic tags**.
 - A **title, heading, and paragraphs** describing yourself, your interests, and your goals.
 - **Text formatting** features (bold, italic, underline, subscript, superscript, lists, etc.).

- At least **three hyperlinks** (internal and external links).
 - One or more **images** with appropriate `alt` text.
 - A **table** showing your educational details or skill set.
 - A **form** that collects user input such as name, email, and feedback.
 - Use of **meta tags** for description and keywords.
 - Save your file using the correct **HTML file extension** and include relevant comments in the code for readability.
4. **Reflection and Documentation**
- Write a short reflection (in your own words) explaining:
 - The **difference between writing HTML manually** versus using a **visual editor**.
 - What challenges you faced while creating your first web page.
 - How understanding HTML helps in building more complex and dynamic websites in the future.

Expected Outcome

By the end of this assignment, students will:

- Understand how the World Wide Web functions and why it is important.
- Identify differences between static and dynamic websites.
- Comprehend how markup languages differ from programming languages.
- Gain hands-on experience in creating and structuring a simple HTML web page.
- Be able to use essential HTML tags, attributes, and structures effectively in web development.

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