**Introduction to HTML**

HTML (HyperText Markup Language) is the standard language used to create and design the structure of web pages. It tells the browser how to display text, images, links, and other content on a website.

**Basics of HTML Tags**

**<html>:** This is the root element of an HTML document. All other tags are nested inside this tag.

**<head>:** Contains metadata, title of the document, and links to CSS or JavaScript files.

**<title>:** Sets the title of the web page shown in the browser tab.

**<body>:** Contains the content that is visible to users like text, images, and links.

**<h1> to <h6>:** Header tags used to define headings. <h1> is the largest, <h6> is the smallest.

**<p>:** Paragraph tag. Used to define blocks of text.

**<a>:** Anchor tag. Used to create hyperlinks. Example: <a href='https://example.com'>Visit</a>

**<img>:** Used to embed images. Example: <img src='image.jpg' alt='My Image'>

**<br>:** Line break tag. Used to break a line.

**<hr>:** Horizontal rule. Used to insert a horizontal line.

**<ul>, <ol>, <li>:** Unordered list, ordered list, and list item tags respectively.

**<div>:** Defines a division or section in an HTML document.

**<span>:** Used to style inline elements or part of a text.

**<strong> / <b>:** Used to make text bold.

**<em> / <i>:** Used to italicize text.

**Structure of an HTML Document**

A basic HTML document includes the following structure:  
<!DOCTYPEhtml>  
<html>  
 <head>  
 <title>PageTitle</title>  
 </head>  
 <body>  
 <h1>This is a Heading</h1>  
 <p>This is a paragraph.</p>  
 </body>  
</html>

**HTML Attributes**

Attributes provide additional information about HTML elements. They are always included in the opening tag and usually come in name/value pairs like: name="value".  
  
**Common attributes include:**  
- href: Specifies the URL for a link (used in <a>)  
- src: Specifies the path for an image (used in <img>)  
- alt: Provides alternative text for an image  
- style: Adds inline CSS styling  
- id and class: Used for identifying and grouping elements for styling or scripting.

**HTML Comments**

Comments are used to explain code or leave notes. They are not displayed in the browser.  
Syntax:

<!-- This is a comment -->

**HTML5 Semantic Tags**

Semantic tags clearly describe their meaning in a human- and machine-readable way. They help with SEO and accessibility.  
  
Examples include:  
- <header>: Defines a page header  
- <nav>: Defines navigation links  
- <section>: Defines a section in the document  
- <article>: Defines an independent article  
- <footer>: Defines a page footer