1. Hypertext

Hypertext is a special type of database system in which objects like text, picture, programs, music etc. can be linked to each other.

# **Markup**

# Markup refers to the sequence of characters or other symbols that you insert at certain places in a text or word processing file to indicate how the file should look when it is printed or displayed or to describe the document's logical structure. The markup indicators are often called "tags."

# Tag

Defines the structure of web page. In web pages, tag indicate what should be displayed on the screen when pages load. Tag is a keyword that is surrounded by angle brackets “< >”. E.g. <p>, <hr>, <br>.

# Markup Languages

A **markup language** is a computer **language** that uses tags to define elements within a document. It is human-readable, meaning **markup** files contain standard words, rather than typical programming syntax. While several **markup languages** exist, the two most popular are HTML and XML.

# Hypertext Markup Language (HTML)

HTML is the standard markup language for creating Web pages.

* HTML stands for Hyper Text Markup Language
* HTML describes the structure of a Web page
* HTML consists of a series of elements
* HTML elements tell the browser how to display the content
* HTML elements are represented by tags
* HTML tags label pieces of content such as "heading", "paragraph", "table", and so on
* Browsers do not display the HTML tags, but use them to render the content of the page.

HTML file save with **.html** extension. E.g. “index.html”.

1. **HTML Editors:**
* Notepad
* Notepad ++
* Eclipse
* Brackets and so on…
1. **Basic HTML Structure:**

<!DOCTYPE html>
<html>

<head>

<title>Page Title</title>

</head>

<body>

</body>

</html>

* The <!DOCTYPE html> declaration defines this document to be HTML5
* The <html> element is the root element of an HTML page
* The <head> element contains meta information about the document
* The <title> element specifies a title for the document
* The <body> element contains the visible page content

**Note:** HTML is note case sensitive. You can code with both uppercase and lowercase letters.

# HTML Tags

HTML tags are element names surrounded by angle brackets:

<tagname>content goes here...</tagname>

* HTML tags normally come **in pairs** like <p> and </p>
* The first tag in a pair is the **start tag,** the second tag is the **end tag**
* The end tag is written like the start tag, but with a **forward slash** inserted before the tag name.

The start tag is also called the **opening tag**, and the end tag the **closing tag**.

1. **Nested Tags**

Tags within Tags

<html>

<head>

<title>Page Title</title>

</head

</html>

## **HTML Elements**

An HTML element usually consists of a **start** tag and an **end** tag, with the content inserted in between:

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

The HTML **element** is everything from the start tag to the end tag:

<p>My first paragraph.</p>

|  |  |  |
| --- | --- | --- |
| **Start tag** | **Element content** | **End tag** |
| <h1> | My First Heading | </h1> |
| <p> | My first paragraph. | </p> |
| <br> |   |   |

HTML elements with no content are called empty elements. Empty elements do not have an end tag, such as the <br> element (which indicates a line break).

# Meta Tag:

The <**meta**> **tag** provides **metadata** about the **HTML** document. ... **Meta** elements are typically used to specify page **description**, keywords, author of the document, last modified, and other **metadata**. The **metadata** can be used by browsers (how to display content or reload page), search engines (keywords), or other web services. E.g.

<head>

 <meta charset="UTF-8">

 <meta name="description" content="Free Web tutorials">

 <meta name="keywords" content="HTML,CSS,XML,JavaScript">

 <meta name="author" content="John Doe">

 <meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

# **charset=UTF-8:**

**charset**=**UTF**-**8** stands for **Character Set** = Unicode Transformation Format-**8**. It is an octet (**8**-bit) lossless encoding of Unicode characters. These should shed more light on the understanding in Web Development and Scripting.