UNIT 2:

Web Page Designing:-

****HTML (HyperText Markup Language):****

HTML is the standard markup language used to create and structure web pages. It provides a set of elements and tags that define the content and layout of a webpage. Here are some important HTML components:

1. **Lists:**

- HTML supports ordered lists (`<ol>`) and unordered lists (`<ul>`).

- List items are defined using the `<li>` tag.

2. **Tables:**

- Tables are created with the `<table>` tag.

- Rows are represented by the `<tr>` tag, and data cells within the rows are defined using `<td>` (table data) or `<th>` (table header) tags.

3. **Images:**

- Images are inserted using the `<img>` tag, with the `src` attribute specifying the image file URL.

- The `alt` attribute provides alternative text that appears if the image cannot be displayed.

4. **Frames:**

- Frames allow dividing a webpage into multiple sections, each displaying a separate HTML document.

- `<frame>` tags define individual frames within a `<frameset>`.

5. **Forms:**

- Forms are used to collect user input and send it to a server for processing.

- Form elements include `<input>`, `<textarea>`, `<select>`, and `<button>`, among others.

6. **CSS (Cascading Style Sheets):**

- CSS is used to style and format the layout of HTML elements on a webpage.

- Styles can be defined inline using the `style` attribute or in external CSS files using the `<link>` tag.

****XML (eXtensible Markup Language):****

XML is a markup language designed to store and transport data, emphasizing simplicity, self-descriptiveness, and flexibility. Unlike HTML, XML does not define pre-defined tags but allows users to define their own. Here are some key concepts related to XML:

1. **DTD (Document Type Definition):**

- DTD is a set of rules that define the structure and content of an XML document.

- It specifies the elements, attributes, and their relationships allowed in the XML document.

2. **XML Schemas:**

- XML Schemas (XSD - XML Schema Definition) are a more modern way to describe the structure of XML documents.

- Schemas are written in XML and provide more powerful validation capabilities compared to DTDs.

3. **Presenting and Using XML:**

- XML documents can be displayed in web browsers using XSLT (eXtensible Stylesheet Language Transformations), which transforms XML data into HTML or other formats for presentation.

- XML data can be processed using various programming languages like JavaScript, Java, Python, etc., to extract, manipulate, or store the data.

In summary, HTML is primarily used for structuring web pages and presenting content, while XML is used for data representation and exchange. CSS complements HTML by providing styling and layout capabilities. Understanding these technologies is essential for web development and data interchange on the internet.