

HTML Tutorial

Introduction

Hypertext Markup Language (HTML) is the standard markup language for creating web pages intended for display in a browser. It is often combined with technologies like **Cascading Style Sheets (CSS)** and scripting languages such as **JavaScript**. HTML is whitespace insensitive.

Requirements

To create and view a website, you need:

- A text editor (e.g., VS Code, Sublime Text)
- An internet browser (e.g., Chrome, Firefox)

After developing a website, hosting is required to make it accessible online.

What is a Website?

- A **website** consists of webpages.
- A **webpage** is composed of HTML tags.
- An HTML **tag** consists of commands or elements wrapped in angle brackets. Most tags have an opening and closing part (e.g., <html> and </html>).

Basic Layout of a Webpage

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<!-- Non-visible elements go here -->
```

```
</head>
```

```
<body>
```

```
<!-- Visible content goes here -->
```

```
</body>
```

```
</html>
```

- The <!DOCTYPE html> declaration informs the browser about the HTML version.
- <html> and </html> tags define the root element.
- The webpage consists of two main sections: <head> (metadata) and <body> (visible content).

Adding Content to a Webpage

Elements are categorized as:

1. Block-level elements (take the full width, begin on new lines)

- Headings (<h1> to <h6>)
- Paragraphs (<p>)
- Division (<div>)

2. Inline-level elements (only take up required width, inline with other elements)

- Bold (or)
- Italic (or <i>)

Examples:

```
<h1>Main Title</h1>
```

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

```
<br> <!-- Line break -->
```

```
<hr> <!-- Horizontal line -->
```

HTML Links and Images

- **Links:**

```
<a href="https://example.com">Link Text</a>
```

- **Images:**

```

```

HTML Tables

A table consists of rows (<tr>), columns (<td>), and optional headers (<th>).

```
<table border="1" width="500" cellpadding="10" cellspacing="10">
```

```
<tr>
```

```
<th colspan="2">Table Title</th>
```

```
</tr>
```

```
<tr>
```

```
<td>Data 1</td>
```

```
<td>Data 2</td>
```

```
</tr>
```

```
</table>
```

Attributes:

- border: Specifies the border thickness.
- width: Fixes table width.
- colspan: Spans cells across columns.
- cellpadding: Padding within cells.
- cellspacing: Space between cells.

Lists

- **Ordered List:**

```
<ol>
<li>Item 1</li>
<li>Item 2</li>
</ol>
```

- **Unordered List:**

```
<ul>
<li>Item A</li>
<li>Item B</li>
</ul>
```

Hosting Your Website

If you have a UTCS account:

- Upload files (including index.html) into the public_html folder.
- Ensure permissions by executing:
 - **Start from the directory that contains public_html**, and run the following command to give everyone read, write, and execute access, while removing write permission from group and others:
chmod a+rw,g-w,o-w public_html
 - **Change into the public_html directory:**
cd public_html
 - **Then, update the permissions on index.html to make it readable and executable by all:**
chmod a+rx index.html
- Access your webpage at:
<https://www.cs.utexas.edu/users/USERNAME/>
Replace USERNAME with your actual UTCS username.

References:

- [W3Schools](#)
- [Wikipedia - HTML](#)
- [DOCTYPE Explanation](#)