

Introduction to HTML

1. What is HTML?

HTML stands for **HyperText Markup Language**.

HTML is the standard markup language used to create and structure webpages. It tells a web browser how different parts of a webpage should be arranged, such as headings, paragraphs, images, links, tables, lists and forms.

HTML is **not a programming language**. It is a **markup language** because it uses tags to describe the structure and meaning of webpage content.

Example

```
<!DOCTYPE html>

<html>

<head>

  <title>My First Webpage</title>

</head>

<body>

  <h1>Welcome to GWALNET</h1>

  <p>This is my first HTML webpage.</p>

</body>

</html>
```

2. Why is HTML Used?

HTML provides the basic structure of a webpage.

It can be used to create:

- Headings
- Paragraphs
- Links

- Images
- Lists
- Tables
- Forms
- Audio and video
- Buttons
- Sections and containers
- Navigation menus

A modern website normally uses HTML together with other technologies:

Technology Main Purpose

HTML	Structure and content
CSS	Design and appearance
JavaScript	Behaviour and interactivity
PHP	Server-side processing
SQL	Database operations

Easy way to remember

HTML = Structure

CSS = Style

JavaScript = Behaviour

3. What is a Webpage?

A **webpage** is a document that can be displayed by a web browser.

Examples of browsers include:

- Google Chrome
- Microsoft Edge
- Mozilla Firefox
- Safari
- Opera

An HTML file is usually saved with the **.html** extension.

Example:

index.html

about.html

contact.html

courses.html

4. What is a Website?

A **website** is a collection of related webpages and other resources available under a common web address or domain.

For example, a website may contain:

Home

About Us

Courses

Notes

Classes

Contact

Each section may be represented by one or more webpages.

5. What is HyperText?

The word **HyperText** refers to text that can contain links to other documents or resources.

For example:

```
<a href="about.html">About Us</a>
```

When a visitor clicks **About Us**, the browser can open the linked webpage.

Hyperlinks are one of the important features that make the web a connected collection of documents.

6. What is a Markup Language?

A markup language uses special symbols or tags to describe the structure of content.

For example:

`<h1>My Heading</h1>`

The `<h1>` tag tells the browser that the text represents a major heading.

Similarly:

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

The `<p>` tag identifies the content as a paragraph.

7. HTML Tags

HTML uses **tags** to identify different types of content.

A common HTML element looks like this:

`<p>Hello World</p>`

Here:

- `<p>` is the opening tag.
- Hello World is the content.
- `</p>` is the closing tag.

General structure

`<opening-tag>Content</closing-tag>`

8. Opening and Closing Tags

Many HTML elements have both an opening and a closing tag.

Example:

`<h1>Introduction to HTML</h1>`

Opening tag:

`<h1>`

Closing tag:

`</h1>`

The closing tag contains a `/` before the tag name.

9. Empty Elements

Some HTML elements do not normally contain content and therefore do not require a closing tag.

Examples include:

`<br>`

`<hr>`

`<img>`

For example:

`<p>Hello<br>Welcome to HTML.</p>`

The `<br>` element creates a line break.

10. Basic Structure of an HTML Document

A basic HTML document has a standard structure.

`<!DOCTYPE html>`

`<html>`

`<head>`

`<title>My Webpage</title>`

`</head>`

`<body>`

`<h1>Hello World</h1>`

`<p>Welcome to my webpage.</p>`

`</body>`

</html>

Important parts

<!DOCTYPE html>

This declaration tells the browser that the document uses modern HTML.

<html>

This is the root element of the webpage.

<head>

The <head> contains information about the document that is generally not displayed as the main page content.

<title>

The <title> specifies the title associated with the webpage, commonly shown in the browser tab.

<body>

The <body> contains the main visible content of the webpage.

11. HTML Headings

HTML provides six levels of headings.

<h1>Main Heading</h1>

<h2>Heading Level 2</h2>

<h3>Heading Level 3</h3>

<h4>Heading Level 4</h4>

<h5>Heading Level 5</h5>

<h6>Heading Level 6</h6>

<h1> represents the highest-level heading, while <h6> represents the lowest level.

Example

<h1>Science</h1>

<h2>Physics</h2>

<h3>Light</h3>

Headings help organize webpage content into a meaningful hierarchy.

12. HTML Paragraphs

The <p> element is used for paragraphs.

<p>

HTML is used to structure webpages.

</p>

Multiple paragraphs can be written separately:

<p>HTML provides webpage structure.</p>

<p>CSS is used to control presentation.</p>

13. Line Break

The
 element inserts a line break.

Example:

<p>

Welcome to GWALNET.

Learn HTML step by step.

</p>

The second sentence starts on a new line.

14. Horizontal Rule

The <hr> element can be used to create a thematic horizontal separation.

Example:

<h2>HTML</h2>

<hr>

<p>HTML is used to structure webpages.</p>

15. HTML Links

Links are created using the <a> element.

Example:

```
<a href="https://example.com">Visit Website</a>
```

The href attribute specifies the destination of the link.

Link to another page

```
<a href="about.html">About Us</a>
```

Link to a section

```
<a href="#contact">Contact</a>
```

16. HTML Images

The element is used to display an image.

Example:

```

```

Important attributes:

src

Specifies the location of the image.

alt

Provides alternative text describing the image.

Example:

```

```

Using meaningful alternative text improves accessibility.

17. HTML Lists

HTML supports different types of lists.

Unordered List

An unordered list normally displays bullet points.

```
<ul>
```

```
<li>HTML</li>
```

```
<li>CSS</li>
```

```
<li>JavaScript</li>
```

```
</ul>
```

Ordered List

An ordered list normally displays numbered items.

```
<ol>
```

```
<li>Open the editor.</li>
```

```
<li>Create an HTML file.</li>
```

```
<li>Write HTML code.</li>
```

```
<li>Open the file in a browser.</li>
```

```
</ol>
```

List Item

The `<li>` element represents an item inside a list.

18. HTML Attributes

Attributes provide additional information about an HTML element.

Example:

```
<a href="courses.html">Courses</a>
```

Here:

- `<a>` is the element.
- `href` is an attribute.
- `"courses.html"` is the attribute value.

Another example:

```

```

The element has two attributes:

`src`

`alt`

19. The class Attribute

The class attribute can identify elements that belong to a particular group.

Example:

```
<p class="important">
```

This is an important note.

```
</p>
```

CSS can later use the class to style the element.

20. The id Attribute

The id attribute gives an element a unique identifier within a page.

Example:

```
<h2 id="about">About GWALNET</h2>
```

An ID can also be used to create an internal link:

```
<a href="#about">Go to About Section</a>
```

21. HTML Comments

Comments are notes written inside HTML code that are not displayed as normal webpage content.

Syntax:

```
<!-- This is an HTML comment -->
```

Comments are useful for explaining sections of code.

Example:

```
<!-- Website Header -->
```

```
<header>
```

```
<h1>GWALNET</h1>
```

```
</header>
```

22. HTML Formatting Elements

HTML provides elements for marking up text with different meanings or presentation effects.

Examples:

`<strong>Important</strong>`

`<em>Emphasized text</em>`

`<mark>Highlighted text</mark>`

`<small>Small text</small>`

`<del>Deleted text</del>`

`<ins>Inserted text</ins>`

Example:

`<p>`

This is `<strong>important</strong>` information.

`</p>`

23. HTML Tables

Tables can represent information in rows and columns.

Basic example:

`<table>`

`<tr>`

`<th>Name</th>`

`<th>Class</th>`

`</tr>`

```
<tr>
  <td>Rahul</td>
  <td>6</td>
</tr>
```

```
<tr>
  <td>Priya</td>
  <td>6</td>
</tr>
```

```
</table>
```

Important table elements:

Element Purpose

<table>	Creates the table
<tr>	Creates a table row
<th>	Creates a header cell
<td>	Creates a data cell

24. HTML Forms

Forms are used to collect information from users.

Example:

```
<form>
```

```
<label for="name">Name:</label>
```

```
<input type="text" id="name" name="name">
```

```
<button type="submit">
```

Submit

</button>

</form>

Forms can contain:

- Text fields
 - Password fields
 - Radio buttons
 - Checkboxes
 - Select menus
 - Buttons
 - Text areas
-

25. Semantic HTML

Semantic HTML elements describe the meaning or role of different parts of a webpage.

Common semantic elements include:

<header>

<nav>

<main>

<section>

<article>

<aside>

<footer>

Example:

<header>

<h1>GWALNET</h1>

</header>

<nav>

```
<a href="index.html">Home</a>
<a href="courses.html">Courses</a>
</nav>
```

```
<main>
```

```
<section>
  <h2>HTML Course</h2>
  <p>Learn HTML step by step.</p>
</section>
```

```
</main>
```

```
<footer>
```

Copyright GWALNET

```
</footer>
```

Semantic elements make the structure of a webpage easier to understand and can improve accessibility and maintainability.

26. HTML Entities

Some characters have special meanings in HTML. HTML entities can be used when a character needs to be represented safely in markup.

Examples:

<

>

&

For example:

```
<p>5 &lt; 10</p>
```

The browser displays:

5 < 10

27. How HTML Works

The basic process is:

HTML File



Web Browser



HTML is Parsed



Webpage is Displayed

For example, if a file named index.html contains:

```
<h1>Welcome</h1>
```

the browser interprets the HTML and displays the heading.

28. Creating Your First HTML Page

Follow these steps:

Step 1: Open a text editor

You can use an editor such as:

- Notepad
- Visual Studio Code
- Notepad++
- Other code editors

Step 2: Create a file

Save it as:

index.html

Step 3: Write HTML

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>My First Page</title>
```

```
</head>
```

```
<body>
```

```
<h1>My First Webpage</h1>
```

```
<p>I am learning HTML.</p>
```

```
</body>
```

```
</html>
```

Step 4: Open it in a browser

Double-click the HTML file or open it using a web browser.

29. Complete Beginner Example

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="UTF-8">
```

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

```
<title>My First Website</title>
```

```
</head>
```

```
<body>
```

```
<header>
```

```
<h1>GWALNET</h1>
```

```
<p>Learning Made Simple</p>
```

```
</header>
```

```
<nav>
```

```
<a href="index.html">Home</a>
```

```
<a href="courses.html">Courses</a>
```

```
<a href="contact.html">Contact</a>
```

```
</nav>
```

```
<main>
```

<h2>Introduction to HTML</h2>

<p>

HTML is used to structure webpages.

</p>

<h3>Topics</h3>

HTML Elements

HTML Attributes

HTML Links

HTML Images

</main>

<footer>

<p>© 2026 GWALNET</p>

</footer>

</body>

</html>

30. Important Points to Remember

- HTML stands for **HyperText Markup Language**.
- HTML is a **markup language**, not a programming language.
- HTML is used to structure webpage content.
- HTML files normally use the .html extension.
- HTML uses elements and tags.
- Most elements have opening and closing tags.
- Some elements are empty elements.
- <html> is the root element.
- <head> contains document information and resources.
- <title> defines the document title.
- <body> contains the main webpage content.
- <h1> to <h6> are heading elements.
- <p> is used for paragraphs.
- <a> creates links.
- displays images.
- creates an unordered list.
- creates an ordered list.
- represents a list item.
- Attributes provide additional information about elements.
- Semantic HTML describes the purpose of page sections.

31. Quick Revision

HTML

H → Hyper

T → Text

M → Markup

L → Language

Remember

HTML → Structure

CSS → Presentation

JavaScript → Interactivity

Basic HTML Structure

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
  <title>Page Title</title>
```

```
</head>
```

```
<body>
```

Page Content

```
</body>
```

```
</html>
```

32. Practice Questions

Very Short Answer

1. What does HTML stand for?
2. Is HTML a programming language?
3. What is the purpose of the <title> element?
4. Which element is used for a paragraph?
5. Which element creates a hyperlink?
6. Which attribute specifies an image location?
7. What is the purpose of the alt attribute?
8. What is an HTML attribute?
9. Which element represents the largest heading level?

10. What is the extension of a normal HTML file?

Short Answer

1. Explain HTML in your own words.
2. Differentiate between HTML and CSS.
3. Explain the basic structure of an HTML document.
4. What are HTML attributes? Give two examples.
5. Explain ordered and unordered lists.
6. What is semantic HTML?
7. Explain the difference between an element and an attribute.
8. What is the purpose of comments in HTML?

Practical Questions

1. Create a webpage containing your name and class.
2. Create a webpage with three headings and three paragraphs.
3. Create an unordered list of five subjects.
4. Create an ordered list of five steps for creating an HTML page.
5. Create a webpage containing an image and a hyperlink.
6. Create a simple student information table.
7. Create a basic contact form.

33. Conclusion

HTML is the foundation of webpage structure. By learning HTML elements, attributes, links, images, lists, tables, forms and semantic sections, a beginner can create well-structured webpages.

HTML becomes even more powerful when combined with **CSS for presentation** and **JavaScript for interactivity**.

Start with simple pages, practice regularly, and gradually build complete webpages.

GWALNET Learning Note

These notes are **original educational material prepared for learning purposes** and are not a reproduction of a textbook or another website's notes.