

# HTML

## <HyperText Markup Language>

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# Introduction to HTML

- HTML is the language of the web, used by billions of websites to create the pages you see every day.
- It is the standard language used to create and design web pages on the internet.
- It was introduced by **Tim Berners-Lee** in **1991** at **CERN** (Conseil Européen pour la Recherche Nucléaire (European Organization for Nuclear Research)) as a simple markup language. Since then, it has evolved through versions from HTML 2.0 to HTML5 (the latest 2024 version).
- While working at CERN, Tim Berners-Lee created HTML as a way to allow researchers to easily share and access documents over the internet. This development laid the foundation for the modern web.

# Features of HTML

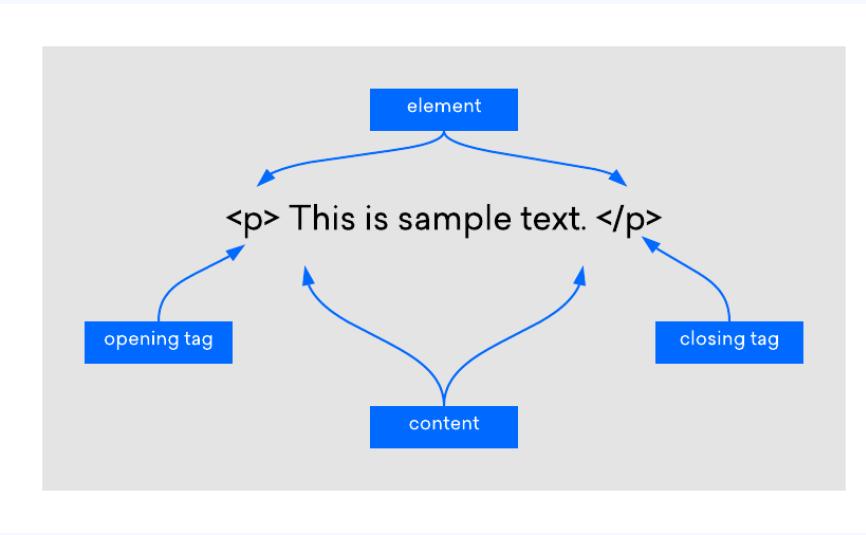
- It is easy to learn and easy to use.
- It is platform-independent.
- Images, videos, and audio can be added to a web page.
- Hypertext can be added to the text.
- It is a markup language.

# HTML Page Structure

```
<!DOCTYPE html> ← Tells version of HTML (HTML5)
<html lang="en"> ← HTML root element
  <head> ← Contains metadata of HTML document
    <title>Your Page Title</title> ← Sets the title of the web page
  </head>
  <body> ← Contains the content of the web page
    <h1>Hello, World!</h1> ← HTML heading tag
    <p>This is my first web page.</p> ← HTML paragraph tag
  </body>
</html>
```

# HTML Elements and Tags

- HTML uses predefined tags and elements that instruct the browser on how to display the content.
- HTML elements include an opening tag, some content, and a closing tag.



# Nested HTML Elements

- When an HTML element is used inside another, it's called a nested element.
- For instance, the **<html>** tag contains the **<head>** and **<body>** tags, forming a nested structure.
- Example:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Your Page Title</title>
  </head>
  <body>
    <h1>Hello, World!</h1>
    <p>This is my first web page.</p>
  </body>
</html>
```

# HTML Empty Elements

- Empty elements in HTML, also known as void elements or self-closing tags, are HTML elements that do not have any content between the opening and closing tags.
- These elements are used to insert something into the web page without the need for a closing tag.
- Common empty elements:
  - <br>: Inserts a line break.
  - <hr>: Inserts a horizontal rule (a line).
  - <img>: Embeds an image.
  - <input>: Creates an input field.
  - <link>: Defines a link to an external resource (commonly used to link to stylesheets).

# HTML Headings

- The HTML heading tags are used to create headings for the content of a webpage.
- These tags are typically placed inside the body tag. HTML offers six heading tags, from **<h1>** to **<h6>**, each displaying the heading in a different font size.

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

# HTML Paragraph and Break Elements

- HTML `<p>` tags are used to write paragraph statements on a webpage.
- They start with the `<p>` tag and end with `</p>`.
- The HTML `<br>` tag is used to insert a single line break and does not require a closing tag.  
In HTML, the break tag is written as `<br>`.
- Syntax:  
`<p> Hello my name is Sagar. <br> I am from Biratnagar.</p>`

# HTML Horizontal Line

- The HTML **<hr>** tag is used to divide a page into sections by creating a horizontal line that spans from the left to the right side of the page.
- This is an empty tag and does not require a closing tag.
- Syntax: **<hr>**

# Practice Work

## HTML Tutorial

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Welcome to our HTML tutorial! In this tutorial, you will learn the basics of HTML and how to use it to create your own web pages.

### Chapter 1: Introduction to HTML

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#### What is HTML?

HTML (Hypertext Markup Language) is a markup language used to structure and format content on the web. It uses a system of tags to define the different elements of a web page, such as headings, paragraphs, and links.

### Chapter 2: Getting Started with HTML

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#### Creating an HTML Document

To create an HTML document, you will need a text editor and a web browser. You can use a simple text editor like Notepad on Windows, orTextEdit on Mac. Once you have a text editor, you can create a new HTML document by saving a file with the ".html" extension.

# HTML Images

- The **<img>** tag is used to insert an image into a webpage.
- The **src** attribute in the **<img>** tag specifies the path to the image you want to display. It can be relative or absolute path or a complete URL to an image.
- Syntax:  

```

```
- **alt** attribute: Text for accessibility and shown if the image fails to load.
- **width and height** attributes: Set the image size in units like pixels (px), percentages (%), em units (em), viewport width (vw), etc.

# HTML Comments

- In HTML, comments are used to leave notes or explanations in the code that will not be displayed on the web page.
- They are useful for developers to document their code, leave reminders, or temporarily disable certain sections of the code without deleting them.
- Comments start with `<!--` and end with `-->`.
- Anything between `<!--` and `-->` will be ignored by the browser.
- They do not nest; `<!--` within a comment will not start a new comment..
- There are two ways to comment in HTML: **Single-line** and **Multi-line** comments.

# Types HTML Comments

- Single-line comment syntax:

```
<!-- This is a single-line comment -->
```

- Multi-line comment syntax:

```
<!--
```

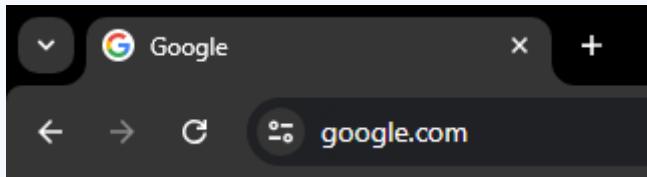
This is a multi-line comment.

You can comment multiple lines of html code including html tags and elements.

```
-->
```

# HTML Favicon

- A favicon is a small image displayed next to the page title in the browser tab.
- It should be a simple image with high contrast.



- To add a favicon to your website, save your favicon image as "favicon.ico" in the root directory of your webserver. Alternatively, you can create an "images" folder in the root directory and save "favicon.ico" there. Then, include the following line in the **<head>** section of your HTML:

```
<link rel="icon" href="images/favicon.ico" type="image/x-icon">
```

# HTML Attributes

- HTML attributes provide additional information about elements within an HTML document.
- Every HTML element can have attributes.
- Attributes are always defined in the start tag. They are specified using a name/value pair format, where the attribute name defines the property, and its value provides specific details, like `name="value"`.
- These attributes impact content display and interaction on web pages.

# HTML Attributes

- Example of some HTML attributes:
  - **id:** Assigns a unique identifier to an element, allowing targeting with CSS or JavaScript.
  - **class:** Specifies one or more class names for an element (used for styling).
  - **src:** Specifies the source URL for external resources like images, audio, or video.
  - **alt:** Provides alternative text for images, essential for accessibility and SEO.
  - **style:** Used for inline CSS styles.
  - **href:** Specifies the URL of a linked resource (used in <a>, <link>, etc.).

# HTML Text Formatting Elements

- HTML Text Formatting provides various tags for text formatting to enhance the visual presentation of content on a webpage.
- You can make your text bold, italic, etc. by using some HTML tags.
- When creating web content, effective text formatting is important for improving readability and user experience.

# HTML Text Formatting Elements

- Example of some HTML text formatting elements:
  - **<i>**: Showcases *italicized* text.
  - **<b>**: Displays text in a bold format.
  - **<small>**: Renders text in a smaller font size.
  - **<ins>**: Highlights added or inserted text.
  - **<sub>**: Creates subscript text.
  - **<sup>**: Formats text as superscript.
  - **<strong>**: Emphasizes text with importance, often in bold.
  - **<mark>**: Accentuates text with a background highlight.
  - **<del>**: Strikes through text to signify deletion.
  - **<em>**: Adds emphasis to text, commonly styled as italic.

# HTML Quotation Elements

- The HTML Quotation elements are used to insert quoted texts in a web page, that is the portion of texts different from the normal texts in the web page.
- Below are some of the most used quotation elements of the HTML.
  - **<abbr>**: Defines abbreviation or acronym.
  - **<bdo>**: Defines text direction, left-to-right or right-to-left.
  - **<blockquote>**: Defines a section quoted from another source.
  - **<cite>**: Defines the title of a work, book, article, or publication.
  - **<q>**: Defines short inline quotation, enclosed in quotation marks.
  - **<address>**: Defines contact info for the author/owner of a document.

# HTML Hyperlinks

- HTML links, or hyperlinks, connect web pages.
- They're created using the anchor **<a>** tag with the href attribute, which specifies the destination URL.
- Users can click on links to navigate between different pages or resources.
- A hyperlink can be represented by an image or any other HTML element, not just text.
- By default an unvisited link is underlined and blue, and a visited link is underlined and purple.
- Syntax: `<a href="url" target="">link text</a>`

# HTML Hyperlinks

- Target attribute:

Attribute	Description
_blank	Opens the linked document in a new window or tab.
_self	Opens the linked document in the same frame or window as the link. (Default behavior)
_parent	Opens the linked document in the parent frame.
_top	Opens the linked document in the full body of the window.
framename	Opens the linked document in a specified frame. The frame's name is specified in the attribute.

# HTML Styles

- The HTML **style** attribute is used to add styles to an element, such as color, font, size, and more.
- Syntax: `<tagname style="property:value;">`
- The property is a CSS property. The value is a CSS value.
- Examples:

I am Red

I am Blue

I am Big

# HTML Styles

- The CSS **background-color** property defines the background color for an HTML element.
- Example: <tagname style="background-color:red;">
  
- The CSS **color** property defines the text color for an HTML element.
- Example: <p style="color:green;">This is a paragraph.</p>
  
- The CSS **font-family** property defines the font to be used for an HTML element.
- Example: <p style="font-family:courier;">This is a paragraph.</p>

# HTML Styles

- The CSS **font-size** property defines the text size for an HTML element.
- Example: `<p style="font-size:30px;">This is a paragraph.</p>`
  
- The CSS **text-align** property defines the horizontal text alignment for an HTML element.
- Example: `<h1 style="text-align:center;">Centered Heading</h1>`

# HTML Block and Inline Elements

- HTML **Block elements**, are used to structure the main content of a webpage. They typically start on a new line and take up the full width of their container examples `<div>`, `<p>`, `<h1>` to `<h6>`, and `<ul>`, etc.
- On the other hand, **Inline elements** are used within block-level elements to style or format specific parts of the content. They don't start on a new line and only take up as much width as necessary for example include `<span>`, `<a>`, `<strong>`, and `<em>`.

# HTML Block and Inline Elements

Here are the block-level elements in HTML:

<address>	<article>	<aside>	<blockquote>	<canvas>	<dd>
<div>	<dl>	<dt>	<fieldset>	<figcaption>	<figure>
<footer>	<form>	<h1>-<h6>	<header>	<hr>	<li>
<main>	<nav>	<noscript>	<ol>	<p>	<pre>
<section>	<table>	<tfoot>	<ul>	<video>	

Here are the inline elements in HTML:

<a>	<abbr>	<acronym>	<b>	<bdo>	<big>
 	<button>	<cite>	<code>	<dfn>	<em>
<i>	<img>	<input>	<kbd>	<label>	<map>
<object>	<output>	<q>	<samp>	<script>	<select>
<small>	<span>	<strong>	<sub>	<sup>	<textarea>
<time>	<tt>	<var>			

# HTML Div Element

- The `<div>` element is used as a container for other HTML elements.
- The `<div>` element is by default a block element, meaning that it takes all available width, and comes with line breaks before and after.
- The `<div>` element has no required attributes, but `style`, `class` and `id` are common.
- The `<div>` element is often used to group sections of a web page together.
- Example:

```
<div>
  <h2>Biratnagar</h2>
  <p>Biratnagar is the capital city of Koshi province.</p>
  <p> Biratnagar has over 243000 inhabitants.</p>
</div>
```

# HTML Lists

- HTML lists allow web developers to group a set of related items in lists.
- There are three types of lists in HTML: ordered lists, unordered lists, and definition lists.
- **Unordered List:** An unordered list uses bullets to list items.
- **Ordered List:** An ordered list uses numbers to list items.
- **Definition List:** A definition list is used to display terms and their definitions.

# HTML Lists

- **Unordered List:** An unordered list starts with the `<ul>` tag. Each list item starts with the `<li>` tag.
- The list items will be marked with bullets (small black circles) by default.
- Example:
  - Coffee
  - Tea
  - Milk

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

# HTML Lists

- **Ordered List:** An ordered list starts with the `<ol>` tag. Each list item starts with the `<li>` tag.
- The list items will be marked with numbers by default.
- Example:
  1. Coffee
  2. Tea
  3. Milk

```
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

# HTML Lists

- **Description List:** A description list is a list of terms, with a description of each term.
- The **<dl>** tag defines the description list, the **<dt>** tag defines the term (name), and the **<dd>** tag describes each term:
- Example:

Coffee

- black hot drink

Milk

- white cold drink

```
<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>
```

# HTML Tables

- HTML tables are used to organize data in a tabular format consisting of rows and columns.
- Tables are defined with the **<table>** tag in HTML, and each table can have a header, body, and footer.
- A table in HTML consists of table cells inside rows and columns.
- Example:

Student Name	Address	Contact
Usab Ojha	Biratnagar-1001	9801234567
Abeen Basnet	Biratnagar-1002	9807654321
Ronish Jung Basnet	Biratnagar-1003	9800112233
Puja Yadav	Biratnagar-1004	9803322110

# HTML Tables

Date	Order ID	Name	Price	Quantity	Total
2017-09-29 01:22	200398	iPhone X 64Gb Grey	\$999.00	1	\$999.00
2017-09-28 05:57	200397	Samsung S8 Black	\$756.00	1	\$756.00
2017-09-26 05:57	200396	Game Console Controller	\$22.00	2	\$44.00
2017-09-25 23:06	200392	USB 3.0 Cable	\$10.00	3	\$30.00
2017-09-24 05:57	200391	Smartwatch 4.0 LTE Wifi	\$199.00	6	\$1494.00
2017-09-23 05:57	200390	Camera C430W 4k	\$699.00	1	\$699.00
2017-09-22 05:57	200389	Macbook Pro Retina 2017	\$2199.00	1	\$2199.00
2017-09-21 05:57	200388	Game Console Controller	\$999.00	1	\$999.00
2017-09-19 05:57	200387	iPhone X 64Gb Grey	\$999.00	1	\$999.00
2017-09-18 05:57	200386	iPhone X 64Gb Grey	\$999.00	1	\$999.00
2017-09-22 05:57	200389	Macbook Pro Retina 2017	\$2199.00	1	\$2199.00
2017-09-21 05:57	200388	Game Console Controller	\$999.00	1	\$999.00
2017-09-19 05:57	200387	iPhone X 64Gb Grey	\$999.00	1	\$999.00
2017-09-18 05:57	200386	iPhone X 64Gb Grey	\$999.00	1	\$999.00

# HTML Tables

Class name	Type	Hours	Trainer	Spots
Like a butterfly	Boxing	9:00 AM - 11:00 AM	Aaron Chapman	10
Mind & Body	Yoga	8:00 AM - 9:00 AM	Adam Stewart	15
Criti Cardio	Gym	9:00 AM - 10:00 AM	Aaron Chapman	10
Wheel Pose Full Posture	Yoga	7:00 AM - 8:00 AM	Donna Wilson	15
Playful Dancer's Flow	Yoga	8:00 AM - 9:00 AM	Donna Wilson	10
Zumba Dance	Dance	5:00 PM - 7:00 PM	Donna Wilson	20
Cardio Blast	Gym	3:00 PM - 4:00 PM	Randy Porter	10
Plates Reformer	Gym	6:00 AM - 9:00 AM	Randy Porter	10
Savvy Spine and Shoulders	Yoga	6:30 AM - 8:00 AM	Randy Porter	15
Yoga for Divas	Yoga	9:00 AM - 11:00 AM	Donna Wilson	20
Virtual Cycle	Gym	8:00 AM - 9:00 AM	Randy Porter	20

# HTML Tables

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Public Swim</b> 06:30 - 10:30	<b>Public Swim</b> 06:30 - 09:00	<b>Public Swim</b> 06:30 - 09:00	<b>Public Swim</b> 06:30 - 11:15	<b>Public Swim</b> 06:30 - 09:00	<b>Lane Swim</b> 08:00 - 09:00	<b>Lane Swim</b> 08:00 - 09:00
<b>Aquacise</b> 10:30 - 11:15	<b>Aqua Jog</b> 09:15 - 10:00	<b>Education Swimming Lessons</b> 09:00 - 12:00	<b>Aquacise</b> 11:15 - 12:00	<b>Education Swimming Lessons</b> 09:00 - 12:00	<b>Oldham Active Kids Swimming Lessons</b> 09:00 - 13:00	<b>Public Swim</b> 09:00 - 11:00
<b>Lane Swim</b> 11:30 - 13:00	<b>Parent &amp; Baby Class</b> 09:30 - 10:15	<b>Lane Swim</b> 12:00 - 13:00	<b>Lane Swim</b> 12:00 - 13:00	<b>Lane Swim</b> 12:00 - 13:00	<b>Parent and Baby</b> 12:00 - 12:45	<b>Aquacise</b> 11:00 - 11:45
<b>Education Swimming Lessons</b>	<b>Public Swim</b> 10:00 - 11:45	<b>Public Swim</b> 13:00 - 14:00	<b>Education Swimming Lessons</b>	<b>Oldham Active Kids Swimming</b>	<b>Public Swim</b> 13:00 - 17:00	<b>Public Swim</b> 11:45 - 13:00

# HTML Tables

Product	Price Per Unit	Quantity	Discount	Extended Amount
Analysis	£850.00	30	£0.00	£25,500.00
Deployment	£750.00	12.5	£0.00	£9,375.00
Design & Development	£850.00	100	£5,500.00	£79,500.00
Diagnostics	£850.00	10	£0.00	£8,500.00
Project Management	£650.00	38	£0.00	£24,700.00
Detail Amount:				£147,575.00
Less Discount %:				2.00%
Less Discount:				£0.00
Pre-Freight Amount:				£144,623.50
Freight Amount:				£0.00
Tax Amount:				£0.00
Total Amount:				£144,623.50

# Simple HTML Tables

Student Name	Address	Contact
Usab Ojha	Biratnagar-1001	9801234567
Abeen Basnet	Biratnagar-1002	9807654321
Ronish Jung Basnet	Biratnagar-1003	9800112233
Puja Yadav	Biratnagar-1004	9803322110

```
<table border="1px">
  <thead>
    <tr>
      <th>Student Name</th>
      <th>Address</th>
      <th>Contact</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Usab Ojha</td>
      <td>Biratnagar-1001</td>
      <td>9801234567</td>
    </tr>
    <tr>
      <td>Abeen Basnet</td>
      <td>Biratnagar-1002</td>
      <td>9807654321</td>
    </tr>
    <tr>
      <td>Ronish Jung Basnet</td>
      <td>Biratnagar-1003</td>
      <td>9800112233</td>
    </tr>
    <tr>
      <td>Puja Yadav</td>
      <td>Biratnagar-1004</td>
      <td>9803322110</td>
    </tr>
  </tbody>
</table>
```

# HTML Tables

- **<table>**: Wraps the entire table.
- **<thead>**: Contains the table header rows.
- **<tbody>**: Contains the table body rows.
- **<tfoot>**: Contains the table footer rows.
- **<tr>**: Defines a row in the table, tr stands for table row.
- **<th>**: Defines a header cell (bold and centered by default), th stands for table header.
- **<td>**: Defines a standard cell, td stands for table data.

# HTML Table Colspan & Rowspan

- HTML tables can have cells that span over multiple rows and/or columns.

NAME		

APRIL		

2022		
FIESTA		

- **HTML Table - Colspan:** To make a cell span over multiple columns, use the colspan attribute
- **HTML Table - Rowspan:** To make a cell span over multiple rows, use the rowspan attribute

# HTML Table Colspan

- To make a cell span more than one column, use the colspan attribute.

Name	Address
Prajin	Thapa
Praptika	Sedai

```
<table border="1" style="border-collapse: collapse; width: 50%;">
  <tr>
    <th colspan="2">Name</th>
    <th>Address</th>
  </tr>
  <tr>
    <td>Prajin</td>
    <td>Thapa</td>
    <td>Biratnagar-1001</td>
  </tr>
  <tr>
    <td>Praptika</td>
    <td>Sedai</td>
    <td>Biratnagar-1002</td>
  </tr>
</table>
```

# HTML Table Rowspan

- To make a cell span more than one row, use the rowspan attribute.

Name	Giri Raj Gautam
Phone	980-1234567
	980-7654321

```
<table border="1" style="border-collapse: collapse; width: 50%;">|  |  |
| --- | --- |
| Name | Giri Raj Gautam |
| Phone | 980-1234567 |
|  | 980-7654321 |
  


| Name  | Giri Raj Gautam |
|-------|-----------------|
| Phone | 980-1234567     |
|       | 980-7654321     |



```
<table border="1" style="border-collapse: collapse; width: 50%;">|  |  |
| --- | --- |
| Name | Giri Raj Gautam |
| Phone | 980-1234567 |
|  | 980-7654321 |
  


Name	Giri Raj Gautam
Phone	980-1234567
	980-7654321



```
<table border="1" style="border-collapse: collapse; width: 50%;">|  |  |
| --- | --- |
| Name | Giri Raj Gautam |
| Phone | 980-1234567 |
|  | 980-7654321 |

```


```


```

# HTML Forms

- An HTML form is used to collect user input. The user input is most often sent to a server for processing.
- The HTML **<form>** element is used to create an HTML form.
- The **<form>** element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

First name:

Last name:

```
<form action="">
  <label for="first-name">First name:</label><br>
  <input type="text" name="first-name" value="Ajay"><br>
  <label for="last-name">Last name:</label><br>
  <input type="text" name="last-name" value="Yadav"><br><br>
  <input type="submit" value="Submit">
</form>
```

# HTML Forms

## The <input> Element

- The HTML <input> element is the most used form element.
- An <input> element can be displayed in many ways, depending on the **type** attribute.

Type	Description
<input type="text">	Displays a single-line text input field
<input type="radio">	Displays a radio button (for selecting one of many choices)
<input type="checkbox">	Displays a checkbox (for selecting zero or more of many choices)
<input type="submit">	Displays a submit button (for submitting the form)
<input type="button">	Displays a clickable button

# HTML Forms

## The <input> Element Types

The image shows a dark-themed browser window displaying a form with various input types. The inputs are listed on the left with their corresponding HTML code and visual representation on the right.

- <input type="text"> My Text Field
- <input type="password"> ..... (password field)
- <input type="number"> 3
- <input type="search"> My Search X
- <input type="url"> https://google.com
- <input type="email"> test@atheros.ai
- <input type="range"> (range slider set to approximately 50)
- <input type="checkbox">
- <input type="radio">
- <input type="time"> 02:13 AM ⏺
- <input type="month"> January 2023 ⏺
- <input type="reset"> Reset
- <input type="submit"> Submit

Here are the different input types you can use in HTML:

- <input type="button">
- <input type="checkbox">
- <input type="color">
- <input type="date">
- <input type="datetime-local">
- <input type="email">
- <input type="file">
- <input type="hidden">
- <input type="image">
- <input type="month">
- <input type="number">
- <input type="password">
- <input type="radio">
- <input type="range">
- <input type="reset">
- <input type="search">
- <input type="submit">
- <input type="tel">
- <input type="text">
- <input type="time">
- <input type="url">
- <input type="week">

# HTML Forms

## Form Attributes

- The “**action**” attribute in an HTML form specifies the URL where the form data should be sent when the form is submitted. This URL is usually a server-side script that processes the form data. If the action attribute is omitted, the form data will be sent to the same URL as the page containing the form.
- The “**target**” attribute specifies where to display the response that is received after submitting the form.
- The “**method**” attribute in an HTML form specifies the HTTP method that the browser uses to submit the form data. The two most common values for the method attribute are **GET** and **POST**.

# Some HTML Form Elements

## The **<label>** Element

- The **<label>** element defines a label for several form elements.
- The **<label>** element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.
- The **<label>** element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the **<label>** element, it toggles the radio button/checkbox.
- The “**for**” attribute of the **<label>** tag should be equal to the **id** attribute of the **<input>** element to bind them together.

# Some HTML Form Elements

## The `<select>` Element

- The `<select>` element defines a drop-down list.
- The `<option>` element defines an option that can be selected.
- By default, the first item in the drop-down list is selected.
- To define a pre-selected option, add the “**selected**” attribute to the option.

Choose a course:

The form displays a dropdown menu labeled "Choose a course:" containing four options: BCA, BScCSIT, BIT, and BIM. The "BScCSIT" option is currently selected, indicated by a blue background and a blue border.

```
<form action="">
  <label for="courses">Choose a course:</label>
  <select id="courses" name="courses">
    <option value="bca">BCA</option>
    <option value="csit">BScCSIT</option>
    <option value="bit">BIT</option>
    <option value="bim">BIM</option>
  </select>
  <input type="submit">
</form>
```

# Some HTML Form Elements

## The <textarea> Element

- The <textarea> element defines a multi-line input field (a text area).
- The “rows” attribute specifies the visible number of lines in a text area.
- The “cols” attribute specifies the visible width of a text area.

The cat was playing in the  
garden.

Submit

```
<form action="">
  <textarea name="message" rows="10" cols="30">The cat was playing in the
    garden.
  </textarea>
  <br><br>
  <input type="submit">
</form>
```

# Some HTML Form Elements

## The <button> Element

- The <button> element defines a clickable button.

### The **button** Element

Click Me!

```
<body>
  <h2>The button Element</h2>
  <button type="button" onclick="alert('Hello World!')">Click Me!</button>
</body>
```

# Some HTML Form Elements

## The `<fieldset>` and `<legend>` Elements

- The `<fieldset>` element is used to group related data in a form.
- The `<legend>` element defines a caption for the `<fieldset>` element.

Personalia:

First name:  
Aashutosh

Last name:  
Khatiwada

```
<form action="">
  <fieldset>
    <legend>Personalia:</legend>
    <label for="first-name">First name:</label><br>
    <input type="text" id="first-name" name="first-name" value="Aashutosh">
    <br>
    <label for="last-name">Last name:</label>
    <br>
    <input type="text" id="last-name" name="last-name" value="Khatiwada">
    <br><br>
    <input type="submit" value="Submit">
  </fieldset>
</form>
```

# Some HTML Form Elements

## The <datalist> Element

- The <datalist> element specifies a list of pre-defined options for an <input> element.
- Users will see a drop-down list of the pre-defined options as they input data.
- The “list” attribute of the <input> element, must refer to the id attribute of the <datalist> element.

A screenshot of a web browser showing a form element. An input field has a dropdown arrow icon to its right, indicating a dropdown menu is open. The menu lists the following options:

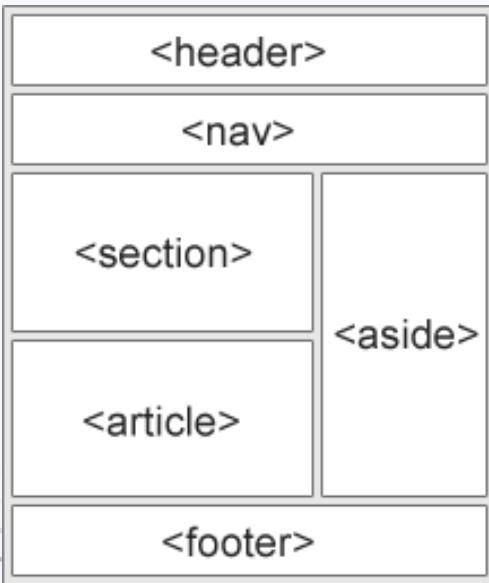
- Edge
- Firefox
- Chrome
- Opera
- Safari

Below the input field is a "Submit" button.

```
<form action="">
  <input list="browsers" name="browser">
  <datalist id="browsers">
    <option value="Edge">
    <option value="Firefox">
    <option value="Chrome">
    <option value="Opera">
    <option value="Safari">
  </datalist>
  <input type="submit">
</form>
```

# HTML Layouts

HTML has several semantic elements that define the different parts of a web page:



- **<header>**: Defines a header for a document or a section
- **<nav>**: Defines a set of navigation links
- **<section>**: Defines a section in a document
- **<article>**: Defines an independent, self-contained content
- **<aside>**: Defines content aside from the content (like a sidebar)
- **<footer>**: Defines a footer for a document or a section
- **<details>**: Defines additional details that the user can open and close on demand
- **<summary>**: Defines a heading for the **<details>** element

# HTML Layout Techniques

**There are four different techniques to create multicolumn layouts. Each technique has its pros and cons:**

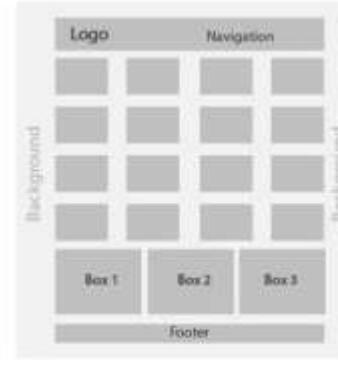
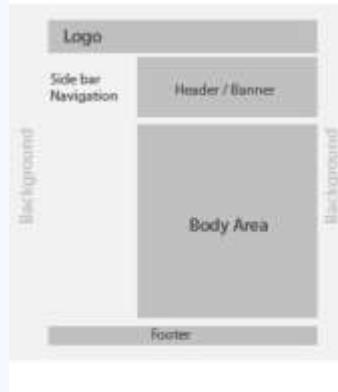
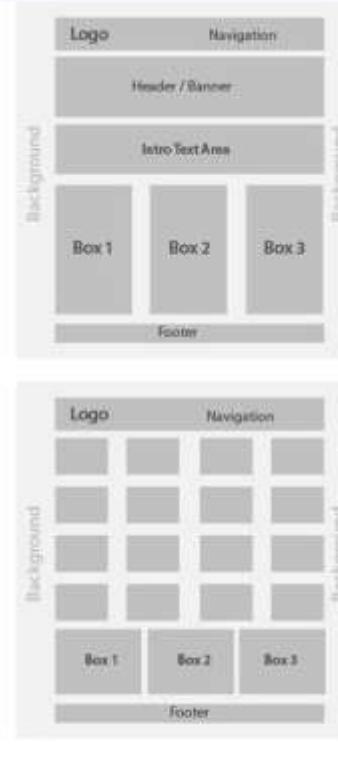
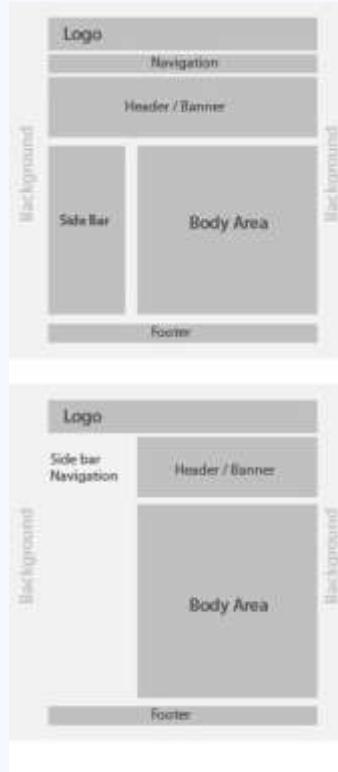
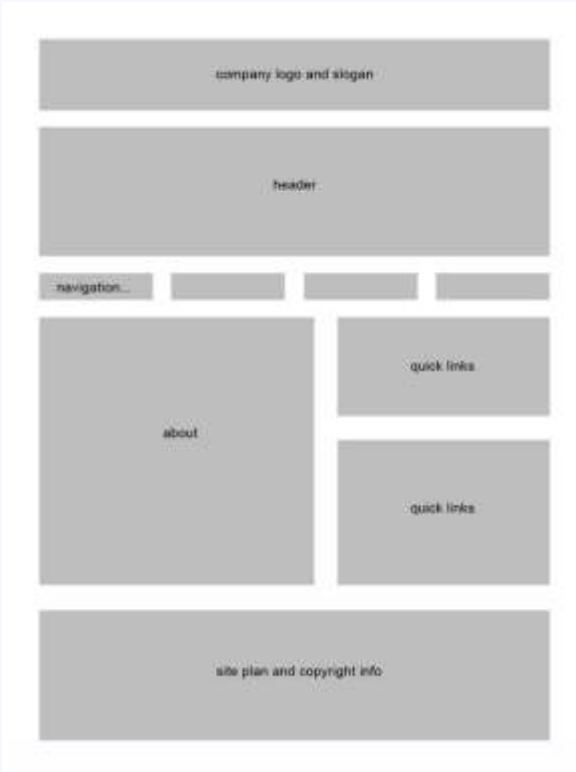
1. CSS framework
2. CSS float property
3. CSS flexbox
4. CSS grid

# HTML Layout Techniques

**There are four different techniques to create multicolumn layouts. Each technique has its pros and cons:**

1. CSS framework
2. CSS float property
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4. CSS grid

# HTML Layout Examples





**THE END !**