

1.5 Types of Elements (Inline/Block)

HTML elements can be categorized in several ways, primarily based on their display behavior and their purpose.

1. Block-level Elements:

These elements typically start on a new line and take up the full available width of their parent container.

They are used to structure the main sections of a web page.

Examples include:

<address>
<article>
<aside>
<blockquote>
<canvas>
<dd>
<div>
<dl>
<dt>
<fieldset>
<figcaption>
<figure>
<footer>
<form>
<h1>...<h6>
<header>
<hr>

<main>
<nav>
<noscript>

<p>
<pre>

<section>

<table>

<tfoot>

<video>

2. Inline Elements:

These elements do not start on a new line and only take up as much width as their content requires. They are used to style or structure content within a block-level element.

Examples include:

<a>

<abbr>

<acronym>

<bdo>

<big>

<button>

<cite>

<code>

<dfn>

<i>

<input>

<kbd>

<label>

<map>

<object>

<output>

<q>

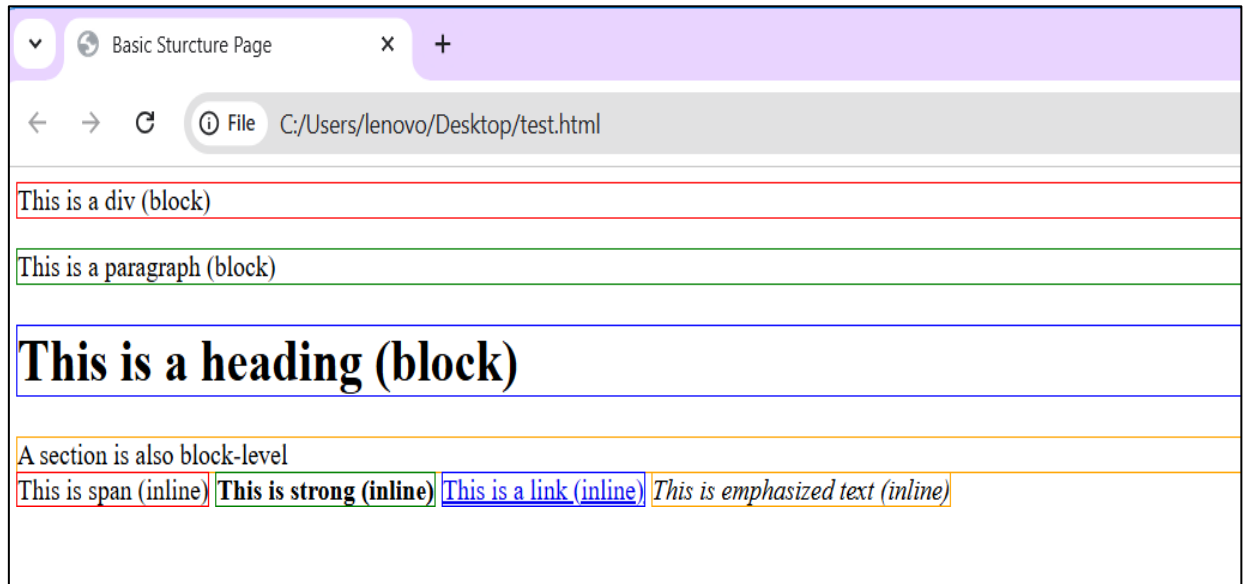
<samp>

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Basic Structure Page</title>
  </head>
  <body>
    <!--block level elements-->
    <div>This is a div (block)</div>

    <p>This is a paragraph (block)</p>

    <h1>This is a heading (block)</h1>

    <section style="border: 1px solid
      orange"> A section is also block-level
    </section>
    <!--inline elements-->
    <span>This is span (inline)</span>
    <strong>This is strong (inline)</strong>
    <a href="#">This is a link (inline)</a>
    <em>This is emphasized text (inline)</em>
  </body>
```



Tag	Description
<html> ... </html>	Declares the Web page to be written in HTML
<head> ... </head>	Delimits the page's head
<title> ... </title>	Defines the title (not displayed on the page)
<body> ... </body>	Delimits the page's body
<h <i>n</i> > ... </h <i>n</i> >	Delimits a level <i>n</i> heading
 ... 	Set ... in boldface
<i> ... </i>	Set ... in italics
<center> ... </center>	Center ... on the page horizontally
 ... 	Brackets an unordered (bulleted) list
 ... 	Brackets a numbered list
 ... 	Brackets an item in an ordered or numbered list
 	Forces a line break here
<p>	Starts a paragraph
<hr>	Inserts a horizontal rule
	Displays an image here
 ... 	Defines a hyperlink

1.13 HTML Comments

```
<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />

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

    <title>HTML Comments</title>

  </head>

  <body> <!--body start -->

    <!--section is started from here! -->

    <section>

      <h2> HTML Comments</h2>
      <p>The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers.<br> You can use comments to explain your code, which can help you when you edit the source code at a later date. <br>This is especially useful if you have a lot of code..</p>

    </section>

  </body> <!--body end--></html>
-----
```

Comments can be inserted into the HTML code to make it more readable and understandable. Comments are ignored by the browser and are not displayed.

Output:



1.6 Text Formatting Elements:

In this chapter, you will learn how to enhance your page with Bold, Italics, and other character formatting options.

Objectives: Upon completing this section, you should be able to change the color and size of your text. Where we use Common Character Formatting Elements even can add special characters.

` Two sizes bigger`

The size attribute can be set as an absolute value from 1 to 7 or as a relative value using the "+" or "-" sign. Normal text size is 3 (from -2 to +4).

`this text has color`

Color = "#RRGGBB" The COLOR attribute of the FONT element.

` Bold `

`<I> Italic </I>`

`<U> Underline </U>`

`<PRE> Preformatted </PRE>`

Text enclosed by PRE tags is displayed in a mono-spaced font. Spaces and line breaks are supported without additional elements or special characters.

` Emphasis `

Browsers usually display this as italics.

` STRONG `

Browsers display this as bold.

`<TT> TELETYPE </TT>`

Text is displayed in a mono-spaced font. A typewriter text, e.g. fixed-width font.

`<STRIKE> strike-through text</STRIKE>`

DEL is used for STRIKE at the latest browsers

`<BIG> places text in a big font</BIG>`

`<SMALL> places text in a small font</SMALL>`

`_{places text in subscript position}`

^{places text in superscript style position}

<ins>showing new inserted text</ins>

<mark>used for

highlighting</mark> HTML

ENTITIES

Some characters are reserved in HTML.

If you use the less than (<) or greater than (>) signs in your HTML text, the browser might mix them with tags.

- Entity names or entity numbers can be used to display reserved HTML characters.
- Entity names look like this: &entity_name;
- Entity numbers look like this: &#entity_number;

HTML ENTITIES or Characters & Symbols

These Characters are recognized in HTML as they begin with an ampersand and end with with a semi- colon e.g. &value; The value will either be an entity name or a standard ASCII character number. They are called escape sequences.

The next table represents some of the more commonly used special characters. For a comprehensive listing.

ASSIGNMENT

- **Design a basic HTML page using any two semantic and non-semantic elements.**
- **Design a HTML page creating hyperlink for text, images and all media elements.**

```
<!DOCTYPE html>

<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Text Formatting Example</title>
</head>
<body>
  <h2>Text Formatting Examples</h2>

  <p><b>Bold text (using <b>)</b></p>
  <p><strong>Important text (using
  <strong>)</strong></p>

  <p><i>Italic text (using <i>)</i></p>
  <p><em>Emphasized text (using <em>)</em></p>
  <p><u>Underlined text (using <u>)</u></p>
  <p><mark>Highlighted text (using <mark>)</mark></p>
  <p><small>Small text (using <small>)</small></p>
  <p>H<sub>2</sub>O → Subscript example</p>
  <p>X<sup>2</sup> → Superscript example</p>
  <p><del>Deleted text (using <del>)</del></p>
  <p><ins>Inserted text (using <ins>)</ins></p>
  <p><code>Inline code (using <code>)</code></p>
  <p><kbd>Keyboard input (using <kbd>)</kbd></p>
  <p><pre>
```

Preformatted text (using <pre>)

Keeps spaces and line breaks

```
</pre></p>
```

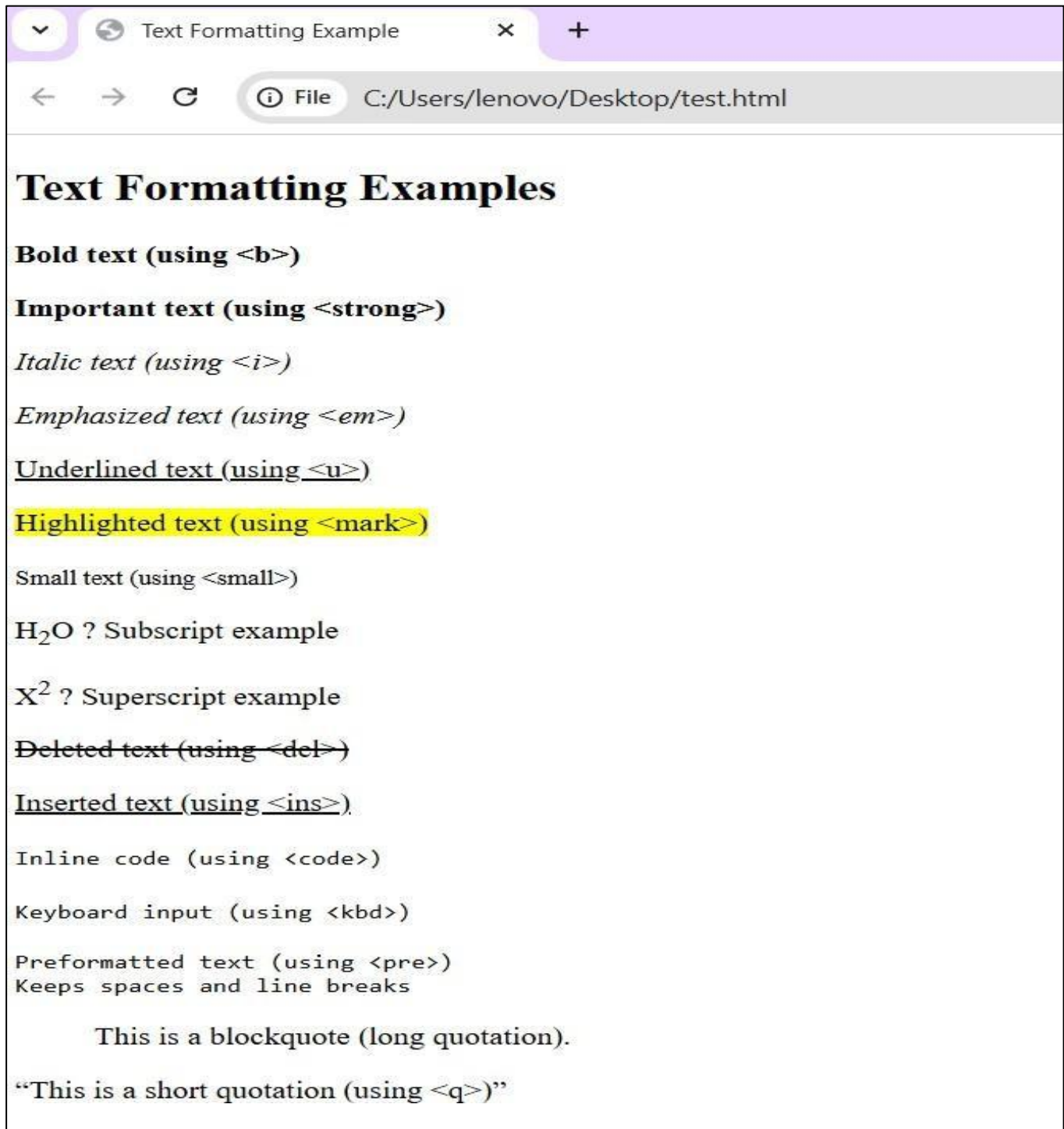
```
<p><blockquote cite="https://www.example.com">
```

This is a blockquote (long quotation).

```
</blockquote></p>
```

```
<p><q>This is a short quotation (using
```

```
lt;q>)</q></p> </body>
```

Output:

Special Character	Entity Name	Special Character	Entity Name
Ampersand	& &	Greater-than sign	> >
Asterisk	∗ *	Less-than sign	< <
Cent sign	¢ ¢	Non-breaking space	 ;
Copyright	© ©	Quotation mark	" "
Fraction one qtr	¼ ¼	Registration mark	® ®
Fraction one half	½ ½	Trademark sign	™ ™

HTML ENTITIES or Characters & Symbols

Additional escape sequences support accented

characters, such as:

- **ö** a lowercase o with an umlaut: ö
- **ñ** a lowercase n with a tilde: ñ
- **È** an uppercase E with a grave accent: È

NOTE: Unlike the rest of HTML, the escape sequences are case sensitive. You cannot, for instance, use < instead of <

```
<!DOCTYPE html>
```

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

```
<head>
```

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

```
<title>HTML Entities Example</title>
```

```
</head>
```

```
<body>
```

```
<h2>Special Characters & Entities</h2>
```

```
<p>Less than: &lt;</p>
```

```
<p>Greater than: &gt;</p>
```

```
<p>Ampersand: &amp;</p>
```

```
<p>Double Quote: &quot;Hello&quot;</p>
```

```
<p>Single Quote: &apos;World&apos;</p>
```

```
<p>Non-breaking space: Hello&nbsp;World (keeps them together)</p>
```

```
<p>Copyright: &copy; 2025 MySite</p>
```

```
<p>Registered Trademark: &reg;</p>
```

```
<p>Trademark: &trade;</p>
```

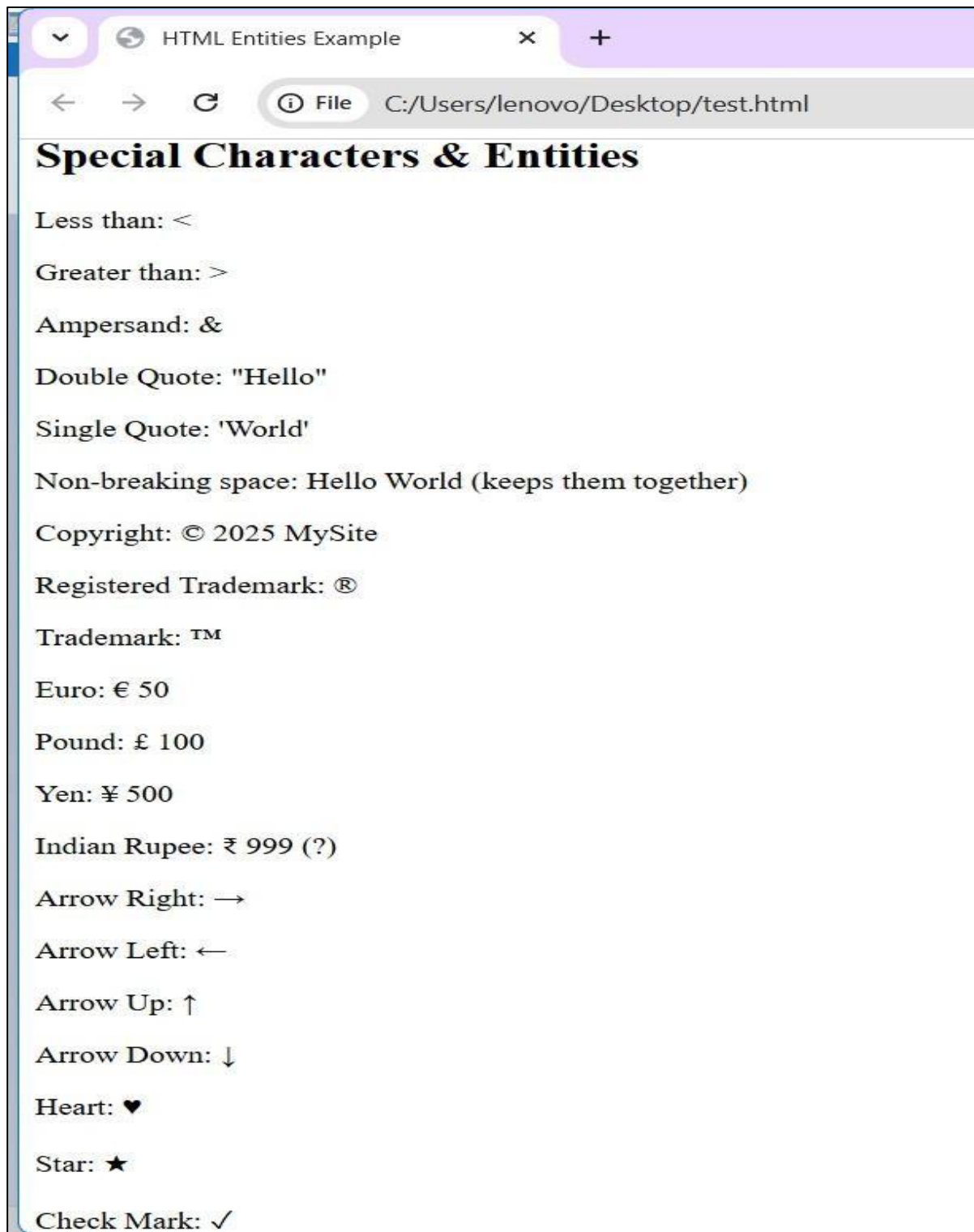
```
<p>Euro: &euro; 50</p>
```

```
<p>Pound: &pound; 100</p>
```

```
<p>Yen: &yen; 500</p>
```

```
<p>Indian Rupee: &#8377; 999 (₹)</p>
```

```
<p>Arrow Right: &rarr;</p>
```



Output:

1.14 Text related Elements(Quotation and Citation Elements)

HTML provides specific elements for semantically marking up quoted text and citations, enhancing accessibility and structure.

- **<abbr>** Defines an abbreviation or acronym
- **<bdo>** Defines the text direction
- **<blockquote>** Defines a section that is quoted from another source
- **<cite>** Defines the title of a work
- **<q>** Defines a short inline quotation

1.15 Using Multimedia (Image/video/Audio/youtube) in HTML:

A variety of tags such as the `` tag, `<video>` tag, and `<audio>` tag are available in HTML to include media on your web page. Multimedia combines different media, such as images, audio, and videos. Users will have a better experience when multimedia is embedded into HTML.

Media Tag	Description
<code><audio></code>	An inline element is used to embed sound files into a web page.
<code><video></code>	Used to embed video files into a web page.
<code><source></code>	Used to attach multimedia files like audio, video, and pictures.
<code><embed></code>	Used for embedding external applications, generally multimedia content like audio or video, into an HTML document.
<code><track></code>	Specifies text tracks for media components, specifically for audio and video elements.

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

<head>

  <meta charset="UTF-8" />

  <title>Media Tags Example</title>

</head>

<body>

  <h1>Media Tags in HTML</h1>

  <h2>Image</h2> <!-- Image Example -->

  <p>This is an image using the <code>&lt;img&gt;</code> tag.</p> <!-- Audio Example -->

  <h2>Audio</h2>

  <audio controls>

    <source src="sample-audio.mp3" type="audio/mpeg" />

    <source src="sample-audio.ogg" type="audio/ogg" />

    Your browser does not support the audio element.

  </audio>

  <p>This is an audio player using the <code>&lt;audio&gt;</code>
tag.</p> <h2>Video</h2> <!-- Video Example --> <video width="400"
controls>

  <source src="sample-video.mp4" type="video/mp4" />

  <source src="sample-video.ogg" type="video/ogg" />

  Your browser does not support the video tag. </video>

  <p>This is a video player using the <code>&lt;video&gt;</code> tag.</p>

  <!-- Iframe Example -->

  <h2>Embedded Video (Iframe)</h2>

  <iframe width="400" height="250" src="https://www.youtube.com/embed/dQw4w9WgXcQ"
title="YouTube Video" frameborder="0" allowfullscreen ></iframe>

  <p>This uses <code>&lt;iframe&gt;</code> to embed a YouTube video.</p>

</body> </html>
```

```
<audio controls autoplay>
  <source src="horse.ogg" type="audio/ogg">
  <source src="horse.mp3" type="audio/mpeg">
Your browser does not support the audio element.
</audio>
```

```
<audio controls autoplay muted>
  <source src="horse.ogg" type="audio/ogg">
  <source src="horse.mp3" type="audio/mpeg">
Your browser does not support the audio element.
</audio>
```

```
<video width="320" height="240" autoplay>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
Your browser does not support the video tag.
</video>
```

Output:

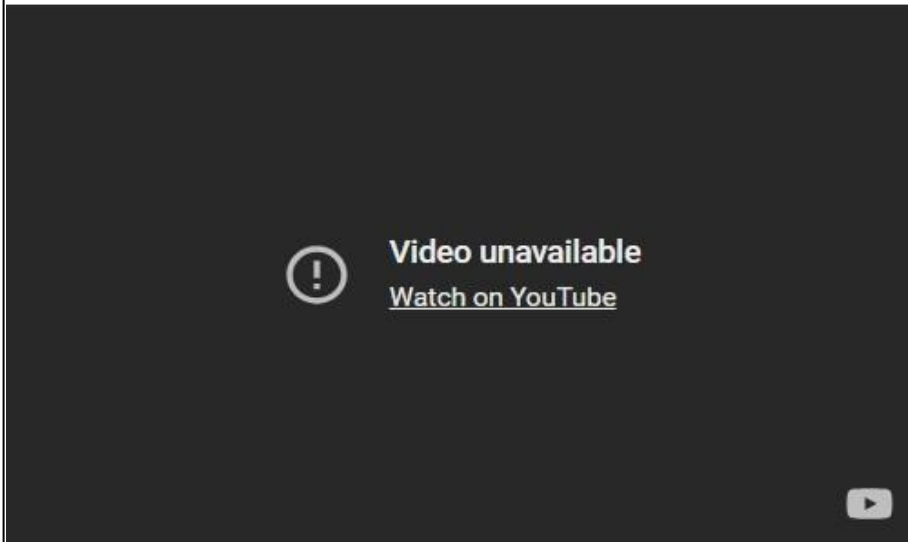


Video



This is a video player using the `<video>` tag.

Embedded Video (Iframe)



This uses `<iframe>` to embed a YouTube video.

Advantage of Media tag:

- Plugins are no longer required
- fashion than imported third-party
- Native (built-in) controls are provided by the browser.
- Accessibilities (keyboard, mouse) are built-in automatically

1.16 Creating s Using Hyperlinks:

The <a> HTML element (or anchor element), with its href attribute, creates a hyperlink to web pages, files, email addresses, locations in the same page, or anything else a URL can address.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <title>hyperlink in HTML</title>
  </head>
  <body>
    <h1>Hyperlink in HTML</h1>
    <!-- Hyperlink Example -->
    <a href="http://www.facebook.com" target= "_blank" > This is a link</a>
  </body>
</html>
```

Output:

