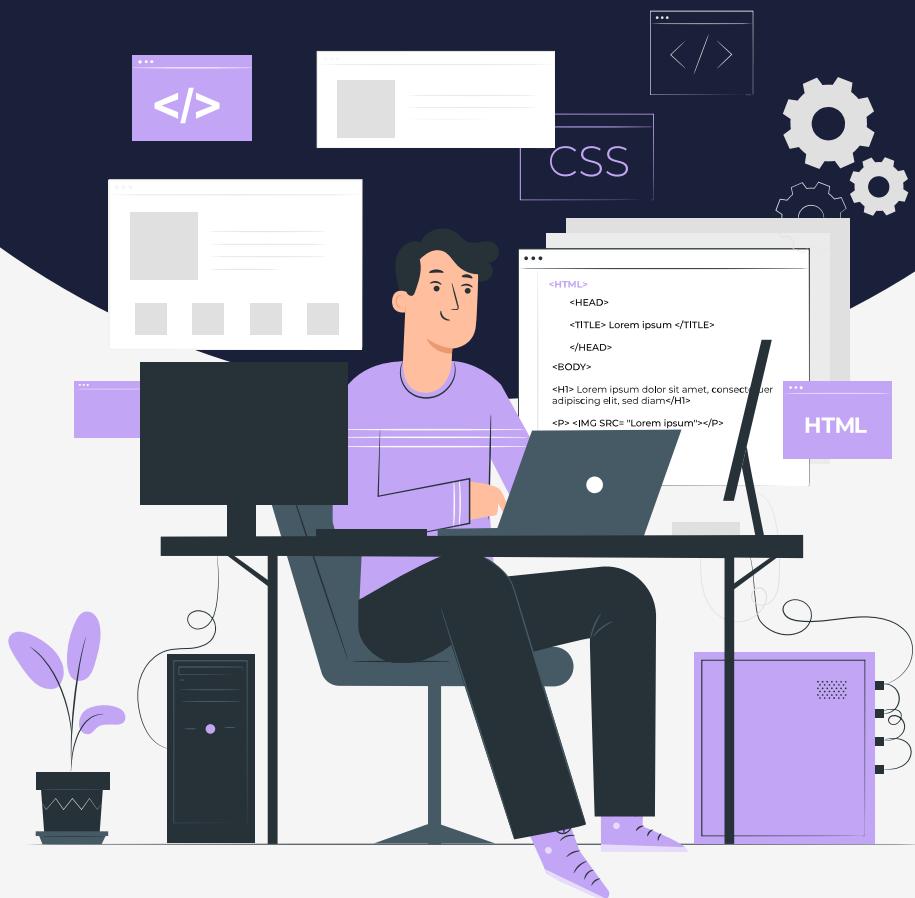


# Lesson:

# Bring in Media



# Topics Covered

- What is media and benefits of using media in HTML
- Adding images using `<img>` tag
- Adding audio using `<audio>` tag
- Adding video using `<video>` tag
- Embed another document using `<iframe>` tag

## What is Media and Benefits of Using Media in HTML

In HTML, "**Media**" refers to **any content** that can be **displayed or played back on a web page**, such as images, audio files, and video files.

Here are a few benefits of using media in HTML

- Media is essential to **making web pages** more **engaging, interesting, and visually appealing**.
- It helps to convey information more effectively and can be used to create interactive applications.
- Media can enhance accessibility by providing alternative means of consuming information, such as audio, and videos, for specially-abled users.

Using media in HTML is necessary to create engaging and accessible web pages that can simplify information, improve SEO, and increase user engagement.

## Adding image using `<img>` Tag

The `<img>` tag is used to embed an image in an HTML page.

**Example:**

```
Unset
<!DOCTYPE html>
<html>
  <head>
    <title>< img ></title>
  </head>
  <body>
    <h1>Heading </h1>
    <p>This is a random photo</p>
    
  </body>
</html>
```

**Browser Output:**

# Heading

This is random photo



## Image Attributes

1. **src:** The src attribute is an HTML attribute used to specify the URL of an image file to be displayed on a web page.
2. **alt:** The alt attribute is an HTML attribute used to provide alternative text for an image in case the image cannot be displayed, or for accessibility purposes.
3. **width and height:** These attributes specify the width and height of the image in pixels.

**For example:**

Unset

```

```

4. **loading:** The loading attribute is an HTML attribute used to control the loading behavior of an image on a web page. The attribute has three possible values:

- **lazy** which delays the load until the image or iframe reaches a distance threshold from the viewport.
- **eager** which loads the resource immediately.
- **auto** which is the default behavior, loads the resource

**Note:** It is important to include alt text for images because it provides information to users who may be unable to see the image due to a slow internet connection, a broken image link, or a visual impairment.

# Supported image formats

1. The `<img>` tag in HTML can display various types of image files. The most commonly supported image formats are:

- ".jpeg"
- ".png"
- ".svg"
- ".gif"
- ".webp"

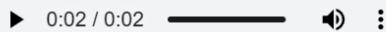
# Adding Audio using `<audio>` Tag

The `<audio>` HTML element is utilized for embedding audio content within HTML documents.

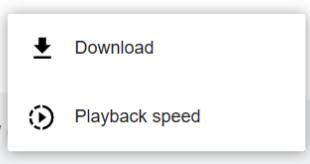
## Example

```
Unset
<!DOCTYPE html>
<html>
<head>
  <title>Audio</title>
  <script src="script.js"></script>
</head>
<body>
  <audio
    controls
    src="https://interactive-examples.mdn.mozilla.net/media/cc0-audio/t-rex-roar.mp3">
  </audio>
</body>
</html>
```

## Browser Output:



If you click on 3 dots,



# Audio Tag Attributes

1. **src:** This attribute specifies the source URL (Uniform Resource Locator) of the audio file that should be played.

**For example:**

Unset

```
<audio src="audio.mp3"></audio>
```

2. **controls:** When this attribute is present, it displays the default audio controls, such as play, pause, and volume, allowing users to interact with the audio player.

**For example:**

Unset

```
<audio src="audio.mp3" controls></audio>|
```

3. **autoplay:** When this attribute is present, the audio will start playing automatically when the page loads.

**For example:**

Unset

```
<audio src="audio.mp3" autoplay></audio>
```

4. **loop:** When this attribute is present, the audio will loop and play repeatedly.

**For example:**

Unset

```
<audio src="audio.mp3" loop></audio>
```

5. **preload:** This attribute specifies how the audio file should be preloaded. It can have values like,

- **auto** – loads the audio file automatically
- **metadata** – loads only the metadata of the audio file
- **none** – does not preload the audio file

**For example:**

Unset

```
<audio src="audio.mp3" preload="auto"></audio>
```

6. **controlstlist:** This attribute specifies the controls that should be displayed in the audio player's controls. It can have values like

- **nodownload** – disables download button
- **nofullscreen** – disables fullscreen button
- **nodownload nofullscreen** – disables both download and fullscreen buttons).

### For example:

Unset

```
<audio src="audio.mp3" controls  
controlsList="nodownload"></audio>
```

**7. muted:** When this attribute is present, the audio will be muted by default.

### For example:

Unset

```
<audio src="audio.mp3" muted></audio>
```

## Audio with multiple sources

Not all browsers or devices support the same file format, and using **multiple <source> tags** allows the browser to choose the best-suited file format that it can play. The browser will try to play the first file format specified in the **<source> tag**, and if it cannot play it, it will try the next one until it finds a compatible file format.

To specify multiple sources, we use **<source>** tags within **<audio>** tag.

### Example:

Unset

```
<audio controls>  
  <source src="sample.opus" type="audio/ogg; codecs=opus" />  
  <source src="sample.ogg" type="audio/ogg; codecs=vorbis" />  
  <source src="sample.mp3" type="audio/mpeg" />  
</audio>
```

**Note:** <audio> tag is introduced in HTML5.

## Adding video using <video> tag

The **<video>** HTML element embeds a media player that supports video playback into the document.

Unset

```
<!DOCTYPE html>  
<html lang="en-us">  
  <head>  
    <meta charset="utf-8">  
    <meta name="viewport" content="width=device-width">  
    <title>Video</title>  
    <link href="minimal-table.css" rel="stylesheet"  
          type="text/css">  
  </head>  
  <body>  
    <video  
      src="https://interactive-examples.mdn.mozilla.net/media/c  
co-videos/flower.webm" controls width="250">  
    </video>  
  </body>  
</html>
```

**Browser Output:-**

## Video Tag attributes

1. **src:** This attribute specifies the source URL (Uniform Resource Locator) of the video file that should be played.

**For example:**

Unset

```
<video src="video.mp4"></video>
```

2. **controls:** When this attribute is present, it displays the default video controls, such as play, pause, and seek, allowing users to interact with the video player.

**For example:**

Unset

```
<video src="video.mp4" controls></video>
```

3. **autoplay:** When this attribute is present, the video will start playing automatically when the page loads.

**For example:**

Unset

```
<video src="video.mp4" autoplay></video>
```

4. **loop:** When this attribute is present, the video will loop and play repeatedly.

**For example:**

Unset

```
<video src="video.mp4" loop></video>.
```

**5. preload:** This attribute specifies how the video file should be preloaded. It can have values like,

- **auto** – loads the video file automatically.
- **metadata** – loads only the metadata of the video file.
- **none** – does not preload the video file.

**For example:**

Unset

```
<video src="video.mp4" preload="auto"></video>
```

**6. poster:** This attribute specifies an image URL that should be displayed as a poster frame before the video starts playing.

**For example:**

Unset

```
<video src="video.mp4" poster="poster.jpg"></video>
```

**7. Width and height:** These attributes specify the width and height of the video player in pixels.

**For example:**

Unset

```
<video src="video.mp4" width="640" height="360"></video>
```

**8. controlsList:** This attribute specifies the controls that should be displayed in the video player's controls. It can have values like,

- **nodownload** – disables download button.
- **nofullscreen** – disables the fullscreen button.
- **nodownload nofullscreen** – disables both download and fullscreen buttons.

**For example:**

Unset

```
<video src="video.mp4" controls  
controlsList="nodownload"></video>
```

**9. muted:** When this attribute is present, the video will be muted by default.

**For example:**

Unset

```
<video src="video.mp4" muted></video>
```

## Video with multiple sources

Just like the `<audio>` tag, the `<video>` tag can use the `<source>` tag to provide alternative file formats to ensure that the video can be played on a wide range of devices and web browsers.

To specify multiple sources, we use `<source>` tags within `<video>` tag.

```
Unset
<video
  width="620"
  controls
>
  <source
  src="https://archive.org/download/ElephantsDream/ed_hd.ogv"
  type="video/ogg" />

  <source
  src="https://archive.org/download/ElephantsDream/ed_hd.avi"
  type="video/avi" />

  <source
  src="https://archive.org/download/ElephantsDream/ed_1024_512kb
.mp4" type="video/mp4" />

  Sorry, your browser doesn't support embedded videos.

</video>
```

**Note:** `<video>` tag is introduced in HTML5.

## Embed another document using `<iframe>` Tag

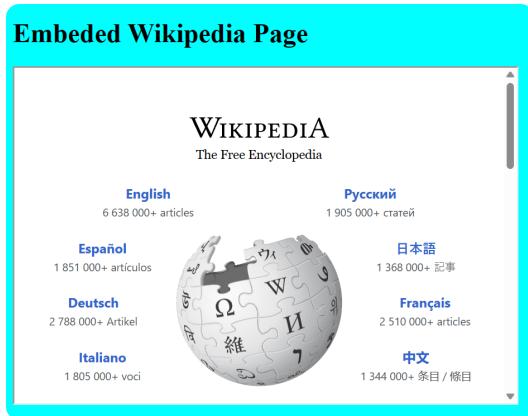
The `<iframe>` tag is an HTML element used to embed another HTML document within the current document.

Yes, document inside another document!

Let's try to embed the Wikipedia page - <https://www.wikipedia.org/>, into our HTML doc.

```
Unset
<!DOCTYPE html>
<html>
<head>
  <title>iframe</title>
</head>
<body style="background-color: aqua;">
  <h1>Embedded Wikipedia Page</h1>
  <iframe src="https://www.wikipedia.org/" frameborder="1"
width="600" height="400"></iframe>
</body>
</html>
```

## Browser Output:-



## <iframe> Attributes

1. **src:** This attribute specifies the URL of the web page that you want to display within the <iframe>. It can be a relative or an absolute URL.
2. **frameborder:** This attribute specifies whether or not to display a border around the <iframe>. A value of "0" means no border, and "1" means to display a border.
3. **width and height:** These attributes specify the width and height of the <iframe>, respectively. They can be specified in pixels or as a percentage of the available width or height.
4. **sandbox:** This attribute allows you to define a sandbox environment for the content within the <iframe>. It can be used to restrict the capabilities of the embedded content, such as preventing it from running JavaScript or accessing certain features of the parent document.
5. **allow:** This attribute specifies what features are allowed to be used by the content within the <iframe>. It can be used to enable specific permissions, such as allowing full-screen mode or access to the microphone.
6. **scrolling:** This attribute specifies whether or not to display scrollbars within the <iframe>. It can have values of "yes", "no", or "auto".