

## Class 05 Media & Anchor Tags

### Media and Graphics in HTML

In HTML, you can include various types of **media** and **graphics** to enhance the visual and interactive aspects of your web page.

### HTML Multimedia

In HTML, "media" means different ways of sharing information, like text, pictures, drawings, sound, video, and moving pictures. Collectively, we call all these ways "multimedia." Sometimes, websites use a mix of sound and video to catch people's attention. You can use various multimedia tags to add these multimedia files.

Here's a list of different HTML multimedia tags:

- Image Tag (<img>)
- Audio Tag (<audio>)
- Video Tag (<video>)
- Canvas Tag (<canvas>)
- SVG Tag (<svg>)
- Embed Tag (<embed>)
- Object Tag (<object>)
- IFrame Tag (<iframe>)

### HTML Images

To put a simple picture on a webpage, we use <img>. It's like a special code. You just need to tell it where the picture is (**src**) and give it a name (**alt**) in case it can't be shown.

```

```

### Setting Mandatory Attributes

The "**src**" and "**alt**" attributes are essential for the proper functioning of the <img> tag.

**src attribute:** Specifies the path to the image file.

**alt attribute:** Provides a text description for the image.

```

```

## Setting Image Dimensions

Although dimensions can be set using the "**width**" and "**height**" attributes in the `<img>` tag, modern best practices recommend using CSS for this purpose.

```

```

## HTML Video Element

It allows you to embed a video very easily on a webpage.

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

### Attributes for `<video>` Tag

**src:** Specifies the path to the video file.

**controls:** Adds video controls, like play, pause, and volume.

**autoplay:** Automatically starts playing the video when the page loads.

**loop:** Repeats the video once it ends.

**muted:** Mutes the video by default.

**poster:** Specifies an image to be displayed before the video starts playing.

**width and height:** Specifies the dimensions of the video.

## HTML Audio Element

It is used to add audio files to a webpage. The `<audio>` element works the same as the `<video>` element we will talk about in a while. A basic example of this might look like:

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

### Attributes for `<audio>` Tag

**src:** Specifies the path to the audio file.

**controls:** Adds audio controls, like play, pause, and volume.

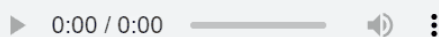
**autoplay:** Automatically starts playing the audio when the page loads.

**loop:** Repeats the audio once it ends.

**muted:** Mutes the audio by default.

**preload:** Specifies if and how the audio should be loaded when the page loads ('auto', 'metadata', 'none').

Enjoy my favorite song of this movie !





## SVG in HTML

**SVG** stands for “**Scalable Vector Graphics**”. Unlike raster images like PNGs or JPGs, SVGs are not pixel-based. They're composed of vectors—mathematical formulas that describe shapes, paths, and fills. This means SVGs can be resized without losing quality.

### Inline SVG Example

```
<svg height="100" width="100">
  <circle cx="50" cy="50" r="40" stroke="black" stroke-width="3" fill="red" />
</svg>
```

### <img> Tag Example

```

```

## HTML <iframe>

If you want to embed another HTML document into your HTML document without using the deprecated **<frameset>** element and without omitting the **<body>** tag, you can use the **<iframe>** element.

```
<iframe src="URL" width="width" height="height"></iframe>
```

### Attributes of iFrame

Several attributes can enhance the functionality of an iFrame:

**src**: Specifies the URL of the page to embed.

**height** and **width**: Define the dimensions.

**frameborder**: Indicates whether to display a border.

**scrolling**: Controls the scrollbars.

**name**: For targeting the iFrame in JavaScript.

### Embedding a YouTube Video

```
<iframe src="https://www.youtube.com/embed/VIDEO_ID" frameborder="0" allowfullscreen></iframe>
```

### Embedding Google Maps

```
<iframe src="https://maps.google.com/maps?q=LOCATION&output=embed" frameborder="0"></iframe>
```

# HYPER TEXT MARKUP LANGUAGE (HTML)



## Responsive Images

The `<picture>` HTML element contains zero or more `<source>` elements and one `<img>` element to offer alternative versions of an image for different display/device scenarios.

The browser will consider each child `<source>` element and choose the best match among them. If no matches are found—or the browser doesn't support the `<picture>` element—the URL of the `<img>` element's `src` attribute is selected.

```
<picture>
  <source media="(min-width:850px)" srcset="img1.png">
  <source media="(min-width:400px)" srcset="img2.jpg">
  
</picture>
```

## Hyperlinks in HTML

Hyperlinks allow us to link documents to other documents or resources, link to specific parts of documents, or make apps available at a web address.

```
<a href="Your specified path">
  content
</a>
```

## Essential Attributes of the Anchor Tag

HTML links primarily use two attributes:

**href** attribute: Defines the URL the link points to.

**target** attribute: Specifies where to open the linked document.

## Target Attribute Values

**\_self** (default): Opens link in the same window.

**\_blank** (new): Opens link in a new window or tab.

**\_top & \_parent** (rare): For framed websites only. Not important for most users.

## How are links created in HTML?

In HTML many different types of links can be created, each performing a specific function.

**1) Text Links** - The most common type of link, you'll encounter. These are used to navigate between web pages or to different sections within the same page.

```
<a href="https://www.youtube.com/@tajinstitute">Go to my Youtube channel!</a>
```

# HYPER TEXT MARKUP LANGUAGE (HTML)



**2) Image Links** - Suppose you want to make an image a clickable link, wrap the image file inside `<a>` element.

```
<a href="https://www.google.com">  
      
</a>
```

**3) Email Links** - Creates a clickable link to send an email.

```
<a href="mailto:info@tajinstitute.com.pk">Send Email</a>
```

**4) Bookmark Links** - Links to a specific part of the page using an ID attribute

```
<a href="#section1">Go to Section 1</a>  
  
<div id="section1">Welcome to Section 1!</div>
```

**5) Absolute Links** - An absolute link is a hyperlink in HTML that uses an absolute URL as its destination. Absolute links give the full address of a webpage, starting with "**http://**" or "**https://**", followed by the website's name and the exact location of the page. They're best when you want to send people to a different website.

```
<a href="https://www.wikipedia.com/blog/article.html">Link Text</a>
```

**6) Relative Links** - Relative links point to another file within your own website, based on where you are currently. You only need to say where the file is in relation to where you are. You don't need to include the website's name or "**http://**" stuff. You just use slashes ("/") to show the path. For example, if the file you want is inside two folders, you just say "**folder1/folder2/targetfile.html**".

```
<a href="./Classes/Class 1/index.html">Go to Section 1</a>
```