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**Coimbatore - 49.**

**DEPARTMENT OF COMPUTER APPLICATIONS**

**COURSE : INTRODUCTION TO WEB DEVELOPMENT**

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**UNIT - II**

**HTML - Frames**

HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document. A collection of frames in the browser window is known as a frameset. The window is divided into frames in a similar way the tables are organized: into rows and columns.

**Disadvantages of Frames**

There are few drawbacks with using frames, so it's never recommended to use frames in your webpages -

- Some smaller devices cannot cope with frames often because their screen is not big enough to be divided up.

- Sometimes your page will be displayed differently on different computers due to different screen resolution.
- The browser's *back* button might not work as the user hopes.
- There are still few browsers that do not support frame technology.

## Creating Frames

To use frames on a page we use `<frameset>` tag instead of `<body>` tag. The `<frameset>` tag defines, how to divide the window into frames. The **rows** attribute of `<frameset>` tag defines horizontal frames and **cols** attribute defines vertical frames. Each frame is indicated by `<frame>` tag and it defines which HTML document shall open into the frame.

*Note - The `<frame>` tag deprecated in HTML5. Do not use this element.*

## Example

Following is the example to create three horizontal frames –

```
<!DOCTYPE html>
<html>

<head>
  <title>HTML Frames</title>
</head>

<frameset rows = "10%,80%,10%">
  <frame name = "top" src = "/html/top_frame.htm" />
```

```
<frame name = "main" src = "/html/main_frame.htm" />
<frame name = "bottom" src = "/html/bottom_frame.htm" />

<noframes>
  <body>Your browser does not support frames.</body>
</noframes>

</frameset>

</html>
```

## HTML Iframes

You can define an inline frame with HTML tag **<iframe>**. The **<iframe>** tag is not somehow related to **<frameset>** tag, instead, it can appear anywhere in your document. The **<iframe>** tag defines a rectangular region within the document in which the browser can display a separate document, including scrollbars and borders. An inline frame is used to embed another document within the current HTML document.

The **src** attribute is used to specify the URL of the document that occupies the inline frame.

### Example

Following is the example to show how to use the **<iframe>** –

```
<!DOCTYPE html>
<html>

<head>
  <title>HTML Iframes</title>
</head>

<body>
  <p>Document content goes here...</p>

  <iframe src = "/html/menu.htm" width = "555" height = "200">
    Sorry your browser does not support inline frames.
  </iframe>

  <p>Document content also go here...</p>
</body>

</html>
```

This will produce the following result –

### **The <Iframe> Tag Attributes**

Most of the attributes of the <iframe> tag, including *name*, *class*, *frameborder*, *id*, *longdesc*, *marginheight*, *marginwidth*, *name*, *scrolling*, *style*, and *title* behave exactly like the corresponding attributes for the <frame> tag.

**Note -**

*The frameborder, marginwidth, longdesc, scrolling, marginheight attributes deprecated in HTML5. Do not use these attributes.*

<b>Sr.No</b>	<b>Attribute &amp; Description</b>
1	<b>Src</b> This attribute is used to give the file name that should be loaded in the frame. Its value can be any URL. For example, src = "/html/top_frame.htm" will load an HTML file available in html directory.
2	<b>Name</b> This attribute allows you to give a name to a frame. It is used to indicate which frame a document should be loaded into. This is especially important when you want to create links in one frame that load pages into an another frame, in which case the second frame needs a name to identify itself as the target of the link.

3	<b>Frameborder</b> This attribute specifies whether or not the borders of that frame are shown; it overrides the value given in the frameborder attribute on the <frameset> tag if one is given, and this can take values either 1 (yes) or 0 (no).
4	<b>Marginwidth</b> This attribute allows you to specify the width of the space between the left and right of the frame's borders and the frame's content. The value is given in pixels. For example marginwidth = "10".
5	<b>Marginheight</b> This attribute allows you to specify the height of the space between the top and bottom of the frame's borders and its contents. The value is given in pixels. For example marginheight = "10".
6	<b>height</b> This attribute specifies the height of <iframe>.
7	<b>scrolling</b> This attribute controls the appearance of the scrollbars that appear on the frame. This takes values either "yes", "no" or "auto". For example scrolling = "no" means it should not have scroll bars.
8	<b>longdesc</b> This attribute allows you to provide a link to another page containing a long description of the contents of the frame. For example longdesc = "framedescription.htm"

9

## **width**

This attribute specifies the width of <iframe>.

## HTML VIDEO

The HTML `<video>` element is used to show a video on a web page.

### **The HTML `<video>` Element**

To show a video in HTML, use the `<video>` element:

#### **Example**

```
<video width="320" height="240" controls>  
  <source src="movie.mp4" type="video/mp4">  
  <source src="movie.ogv" type="video/ogg">
```

Your browser does not support the video tag.

```
</video>
```

### **How it Works**

The `controls` attribute adds video controls, like play, pause, and volume.

It is a good idea to always include `width` and `height` attributes. If height and width are not set, the page might flicker while the video loads.

The `<source>` element allows you to specify alternative video files which the browser may choose from. The browser will use the first recognized format.

The text between the `<video>` and `</video>` tags will only be displayed in browsers that do not support the `<video>` element.

## HTML `<video>` Autoplay

To start a video automatically, use the `autoplay` attribute:

### Example

```
<video width="320" height="240" autoplay>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogv" type="video/ogg">
```

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

Add `muted` after `autoplay` to let your video start playing automatically (but muted):

### Example

```
<video width="320" height="240" autoplay muted>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogv" type="video/ogg">
```

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



## HTML Video Formats

There are three supported video formats: MP4, WebM, and Ogg. The browser support for the different formats is:

Browser	MP4	WebM	Ogg
Edge	YES	YES	YES
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES

## HTML Video - Media Types

File Format	Media Type
MP4	video/mp4
WebM	video/webm
Ogg	video/ogg

## HTML Video - Methods, Properties, and Events

The HTML DOM defines methods, properties, and events for the `<video>` element.

This allows you to load, play, and pause videos, as well as setting duration and volume.

There are also DOM events that can notify you when a video begins to play, is paused, etc.

## HTML Video Tags

Tag	Description
<a href="#">&lt;video&gt;</a>	Defines a video or movie
<a href="#">&lt;source&gt;</a>	Defines multiple media resources for media elements, such as <video> and <audio>
<a href="#">&lt;track&gt;</a>	Defines text tracks in media players

## HTML AUDIO

The HTML `<audio>` element is used to play an audio file on a web page.

### The HTML `<audio>` Element

To play an audio file in HTML, use the `<audio>` element:

#### Example

```
<audio controls>
```

```
  <source src="horse.ogg" type="audio/ogg">
```

```
<source src="horse.mp3" type="audio/mpeg">
```

Your browser does not support the audio element.

```
</audio>
```

## HTML Audio - How It Works

The **controls** attribute adds audio controls, like play, pause, and volume.

The **<source>** element allows you to specify alternative audio files which the browser may choose from. The browser will use the first recognized format.

The text between the **<audio>** and **</audio>** tags will only be displayed in browsers that do not support the **<audio>** element.

## HTML <audio> Autoplay

To start an audio file automatically, use the **autoplay** attribute:

### Example

```
<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>
```

Add **muted** after **autoplay** to let your audio file start playing automatically (but muted):

## Example

```
<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>
```

## HTML Audio Formats

There are three supported audio formats: MP3, WAV, and OGG. The browser support for the different formats is:

Browser	MP3	WAV	OGG
Edge/IE	YES	YES*	YES*
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES

## HTML Audio - Media Types

File Format	Media Type
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MP3	audio/mpeg
OGG	audio/ogg
WAV	audio/wav

## HTML Audio - Methods, Properties, and Events

The HTML DOM defines methods, properties, and events for the `<audio>` element.

This allows you to load, play, and pause audios, as well as set duration and volume.

There are also DOM events that can notify you when an audio begins to play, is paused, etc.

For a full DOM reference, go to our [HTML Audio/Video DOM Reference](#).

## HTML Audio Tags

Tag	Description
<a href="#">&lt;audio&gt;</a>	Defines sound content

[<source>](#)

Defines multiple media resources for media elements, such as <video> and <audio>