



Session 10

HTML5 Audio





Session Overview

In this session, you will be able to:

- Apply the *audio* element in HTML5
- Apply the various tags and attributes in the *audio* element

For Arena centre use only





Introduction

- Traditionally, Web browsers were capable of handling only text and graphics.
- Suppose, if a user had to play a video, then a distinct program, such as a plug-in or an ActiveX control had to be installed.
- Adobe Flash player was also used by Web designers and Web developers to set up Web pages for playing audio or video.





Multimedia in HTML5

- Multimedia is a combination of various elements, such as video, graphics, sound, and text.
- A common way of inserting a multimedia element on a Web page is by embedding a video or audio file in it.
- These days, Website developers want their visitors to not only download movies or videos online, but also view them on their Website.
- This is possible by adding the new features of HTML5 such as *<audio>* and *<video>* elements.
- HTML5 has provided the developers with the feature to embed media on a Web page in a standardized manner.





Supported Media Types in Audio and Video

- There are various video and audio codecs that are used for handling video and audio files.
- A codec is a device or a program used for encoding and decoding a digital data stream.
- These different codecs have different levels of compression quality.
- There are a number of container formats, such as Ogg (.ogg), Audio Video Interleave (.avi), and Flash Video (.flv). WebM is a new open source video container format supported by Google.





Audio Formats

- There are three supported file formats for the `<audio>` element in HTML5.

Browsers Support	MP3	WAV	Ogg
Opera 10.6	No	Yes	Yes
Apple Safari 5	Yes	Yes	No
Google Chrome 6	Yes	Yes	Yes
Firefox 4.0	No	Yes	Yes
Internet Explorer 9	Yes	No	No

Audio File Formats Supported by Web Browsers



Video Formats

- There are three supported file formats for the `<video>` element in HTML5.

Browsers Support	MP4	WebM	Ogg
Opera 10.6	No	Yes	Yes
Apple Safari 5	Yes	No	No
Google Chrome 6	Yes	Yes	Yes
Firefox 4.0	No	Yes	Yes
Internet Explorer 9	Yes	No	No

Video File Formats Supported by Web Browsers





Audio Elements in HTML5

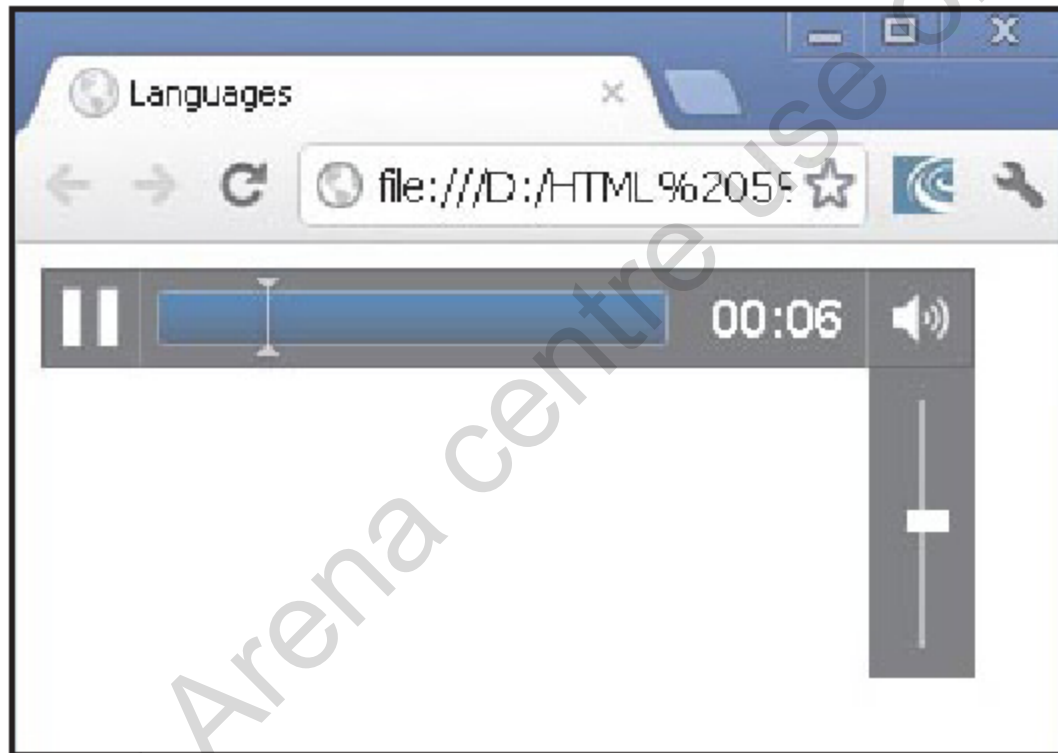
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- The `<audio>` element will help the developer to embed music on the Website and allow users to listen to it.
- The `<audio>` element is one of the best features in HTML5.
- This feature allows the user to enable a native audio file within the Web browser.
- The `<audio>` tag specifies the audio file to be used in the HTML document.
- The `src` attribute is used to link to the audio file.
- The music is played in the background when the page loads on the browser.



Audio Elements in HTML5

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<audio> Element



Audio Tag Attributes

- HTML tags normally consist of more than one attribute.
- Attributes provide additional information to the browser about the tag.
- HTML5 has a number of attributes for controlling the look and feel of various functionalities.

Audio Attributes	Description
<code>autoplay</code>	This attribute identifies whether to start the audio once the object is loaded. It accepts a boolean value. When specified, it automatically starts playing the audio without any halt.
<code>autobuffer</code>	This attribute starts the buffering automatically.
<code>controls</code>	This attribute identifies the audio playback controls that should be displayed such as resume, pause, play, and volume buttons.
<code>loop</code>	This attribute identifies whether to replay the audio once it has stopped.
<code>preload</code>	This attribute identifies whether the audio has to be loaded again when the page loads and is ready to execute. This <code>preload</code> attribute is ignored if <code>autoplay</code> exists.
<code>src</code>	This attribute specifies the location or the URL of the audio file that has to be embedded.

<audio> Tag Attributes



Creating Audio Files

- Suppose, if the user plays the audio in any earlier version of the browser, then the `<embed>` tag will be used.
- The `<embed>` tag has two attributes - namely, `src` and `autostart`.
- The `src` attribute is used to specify the source of the audio; whereas, the `autostart` attribute controls the audio and determines whether the audio should play as the page loads.
- The `<audio>` element in HTML5 supports multiple formats.
- The content included within the `<embed>` tag is automatically played by default.
- The `<embed>` tag also supports another attribute named `loop`.
- The `loop` attribute determines whether the audio clip will be replayed continuously or not by HTML5.



- Website developers want their visitors to not only download the movies or videos online, but also view them on their Website.
- This was made possible by adding the new features of HTML5 such as `<audio>` and `<video>` elements.
- There are various video and audio codecs that are used for handling video and audio files.
- There are a number of container formats, such as Ogg (.ogv), Audio Video Interleave (.avi), and Flash Video (.flv). WebM is a new open source video container format supported by Google.
- The `<audio>` element helps the developer to embed music on the Website and allows the user to listen to it.



Summary

- The `<audio>` tag specifies the audio file to be used in the HTML document.
- The `<source>` tag is used to specify the media along with the media type and other attributes.
- The `<embed>` tag is used to play the audio in any earlier version of the browser. It has two attributes, namely, `src` and `autostart`.
- Other attributes in audio include: `autoplay`, `autobuffer`, `controls`, `loop`, `preload`, and `src`.