



SNS COLLEGE OF TECHNOLOGY

(An AUTONOMOUS INSTITUTION)



RE-ACCREDITED BY NAAC WITH A+ GRADE, ACCREDITED BY NBA(CSE, IT, ECE, EEE & MECHANICAL)

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DEPARTMENT OF MASTER COMPUTER APPLICATION

HTML INTRODUCTION

19CAT601 - WEB PROGRAMMING ESSENTIALS

UNIT-I - ADVANCED HTML - HTML5 Video on the Web

I MCA – I SEM

HTML5 Video Player with Custom Controls using JavaScript

HTML5 Video Player

html5, you can insert video contents using native html markup alone. The `<video>` `</video>` element in html5 offers a standard way to include video files on web pages.

It is supported by all html5 compatible browsers.

HTML5 supports three types of video formats and they are MP4, WebM, and Ogg. Among the three, MP4 is compatible with all major browsers.

Creating Video Player in HTML5:

To embed video in an html page, use the <video> element like this,

```
<video width="640" height="360" controls>  
  <source src="videos/flying-seagull.mp4" type="video/mp4">  
  <source src="videos/flying-seagull.ogg" type="video/ogg">  
  Your browser does not support HTML5 Videos.  
</video>
```

You can provide multiple video sources using the <source> element. The browser will choose the first supported format.

The attributes '**width**' and '**height**' defines the width and height of the video. Providing these values will prevent possible flicker at the time of loading.

The '**controls**' attribute adds the default media controls, such as play, pause, volume slider, fullscreen, etc. to the video player.

Older versions of browsers doesn't support html5, in which case, the text added between the <video> </video> tags will be displayed.

Autoplay Videos:

The '**autoplay**' attribute will start the video automatically. Including it, the video will be played automatically on page load.

```
<video width="640" height="360" controls autoplay>  
  <source src="videos/flying-seagull.mp4" type="video/mp4">  
  Your browser does not support HTML5 Videos.  
</video>
```

Building Custom Controls to HTML5 Video Player:

The primary reason is that the default controls depend entirely on the browser and may vary from one browser to another. Therefore, building a common user interface will make the player look the same across different browsers

HTML5 provides several DOM properties, methods, and events for the `<video>` element. You can use them to define custom video controls.

Below I have created markup for video player with controls to play, pause, replay, stop, volume up/down and mute videos.

HTML Markup:

```
<div id="container">  
  <h1>Custom HTML5 Video Player</h1>  
  <div id="player-container">  
    <video id="myplayer" width="640" height="360">  
      <source src="videos/flying-seagull.mp4" type="video/mp4">  
      Your browser does not support HTML5 Video. </video>  
    <div id="controls">  
      <button onclick="playPause()">Play/Pause</button>  
      <button onclick="stopVideo()">Stop</button>  
      <button onclick="replayVideo()">Replay</button>  
      <button onclick="increaseVolume()">Volume (+)</button>  
      <button onclick="decreaseVolume()">Volume (-)</button>  
      <button onclick="muteVolume()">Mute/Unmute</button>  
    </div>  
  </div>  
</div>
```

Style the Player with CSS:

```
<style type="text/css">
#container
{
  margin: 0 auto;
  width: 666px;
  text-align: center;
}
#player-container
{
  margin: 0 auto;
  background-color:black;
  padding-top: 10px;
  padding-bottom: 10px;
  border: 3px solid #4CC1BE;
  border-radius: 7px;
}
#controls
{
  margin-top: 6px;
}
</style>
```

JavaScript for Custom Controls:

```
<script type="text/javascript">
var player = document.getElementById("myplayer");
function playPause()
{
    if (player.paused)
        player.play();
    else
        player.pause();
}
function stopVideo()
{
    player.pause();
    if (player.currentTime)
    {
        player.currentTime = 0;
    }
}
}
```


JavaScript for Custom Controls:

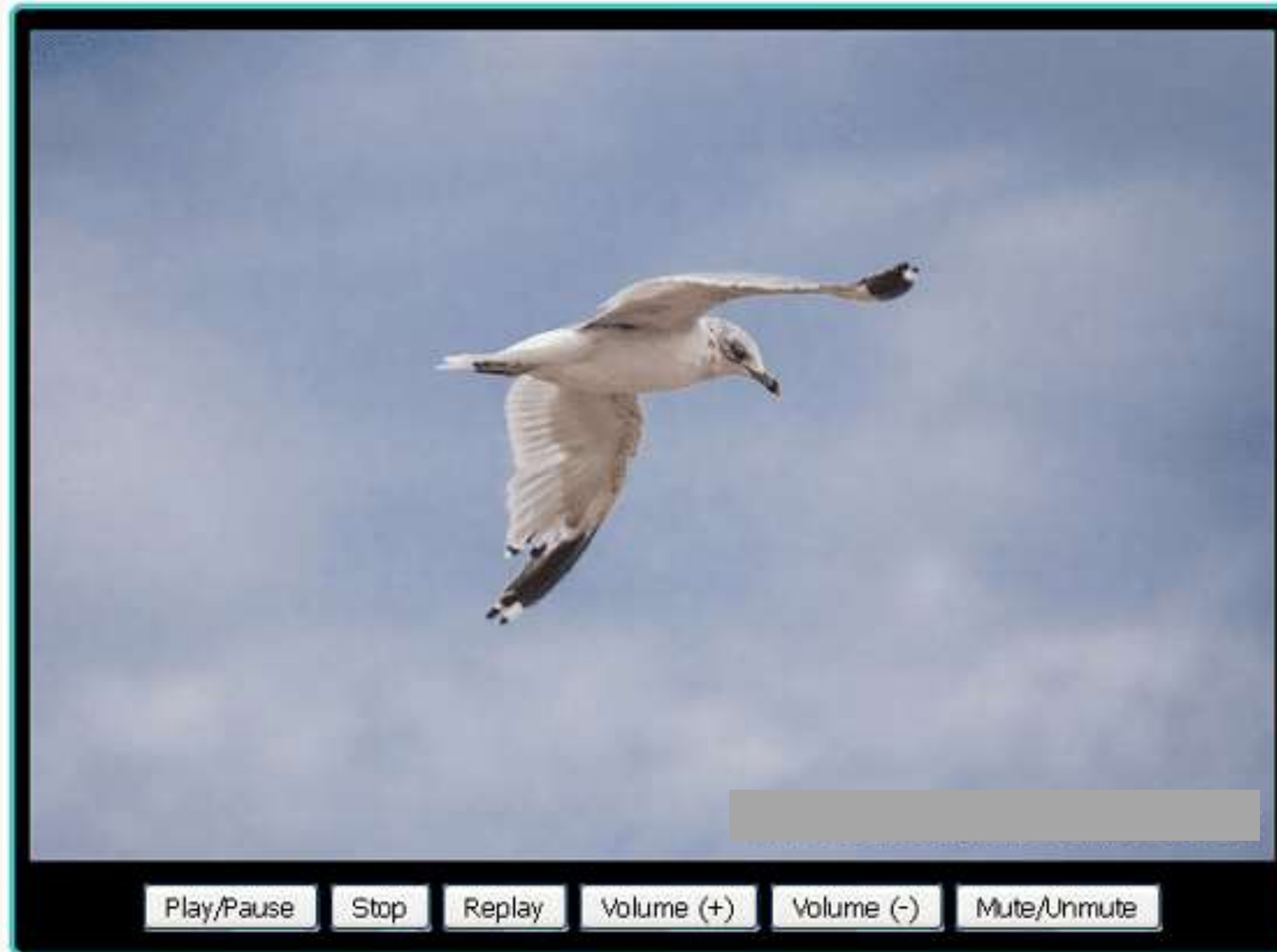
```
function replayVideo()
{
  player.currentTime = 0;
  player.play();
}
function increaseVolume()
{
  if (player.volume < 1)
    player.volume = parseFloat(player.volume + 0.1).toFixed(1);
}
```

JavaScript for Custom Controls:

```
function decreaseVolume()
{
  if (player.volume > 0)
    player.volume = parseFloat(player.volume - 0.1).toFixed(1);
}
function muteVolume() {
  if (player.muted)
    player.muted = false;
  else
    player.muted = true;
}
</script>
```

JavaScript for Custom Controls:

Run the file html5 video player with custom control buttons at the bottom.



You can build a much more enhanced video player using the DOM properties of HTML5 video element.

- References

[HTTPS://WWW.DOTNETTRICKS.COM/LEARN/HTML/HTML5-NEW-ELEMENTS-TAGS](https://www.dotnettricks.com/learn/html/html5-new-elements-tags)

[HTTPS://WWW.W3SCHOOLS.COM/TAGS](https://www.w3schools.com/tags)

[HTTPS://WWW.JAVATPOINT.COM/HTML-TAGS](https://www.javatpoint.com/html-tags)

[HTTPS://WWW.KODINGMADESIMPLE.COM/2017/12/HTML5-VIDEO-PLAYER-CUSTOM-CONTROLS-JAVASCRIPT.HTML](https://www.kodingmadesimple.com/2017/12/html5-video-player-custom-controls-javascript.html)

Thank You!