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# COMPUTER PROGRAMMING (ICT)

Grade  
11

QUARTER 1

MODULE

9

DIFFERENT TYPES OF MULTIMEDIA  
IN HTML DOCUMENTS



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**Computer Programming (ICT) – Grade 11****Quarter 1 – Module 9: Different types of multimedia in HTML documents**

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# Computer Programming

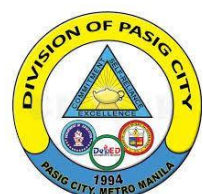
11

QUARTER 1

MODULE

9

DIFFERENT TYPES OF MULTIMEDIA  
IN HTML DOCUMENTS



# Introductory Message

For the Facilitator:

Welcome to the Computer Programming for the ICT Module on Different types of multimedia in HTML documents

This module was collaboratively designed, developed and reviewed by educators from Schools Division Office of Pasig City headed by its Officer-In-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin in partnership with the Local Government of Pasig through its mayor, Honorable Victor Ma. Regis N. Sotto. The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) while overcoming their personal, social, and economic constraints in schooling.

This learning material hopes to engage the learners into guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs namely: Communication, Collaboration, Creativity, Critical Thinking and Character while taking into consideration their needs and circumstances.

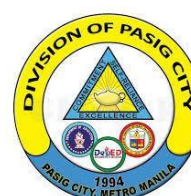
In addition to the material in the main text, you will also see this box in the body of the module:



## ***Notes to the Teacher***

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.



For the earner:

Welcome to the Computer Programming for the ICT Module on Different types of multimedia in HTML documents.

The hand is one of the most symbolized part of the human body. It is often used to depict skill, action and purpose. Through our hands we may learn, create and accomplish. Hence, the hand in this learning resource signifies that you as a learner is capable and empowered to successfully achieve the relevant competencies and skills at your own pace and time. Your academic success lies in your own hands!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning material while being an active learner.

This module has the following parts and corresponding icons:



**Expectation** - These are what you will be able to know after completing the lessons in the module



**Pre-test** - This will measure your prior knowledge and the concepts to be mastered throughout the lesson.



**Recap** - This section will measure what learnings and skills that you understand from the previous lesson.



**Lesson-** This section will discuss the topic for this module.



**Activities** - This is a set of activities you will perform.



**Wrap Up-** This section summarizes the concepts and applications of the lessons.



**Valuing-** this part will check the integration of values in the learning competency.



**Post-test** - This will measure how much you have learned from the entire module. Ito po ang parts ng module.





## EXPECTATION

The students should be able to:

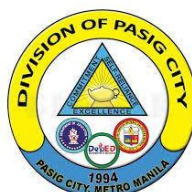
- identify the different types of multimedia;
- understand the use and function of different types of media;
- familiarize the different tags used when inserting different types of media in an HTML document;
- apply different media in their HTML documents.



## PRE-TEST

**Instruction:** Select the letter that corresponds to the correct answer.

1. Which of the following is the file extension for Audio formats?  
A. .aac      B. .jpeg      C. .html      D. .avi
2. Which of the following is the file extension for Video formats?  
A. .aac      B. .jpeg      C. .html      D. .avi
3. Which of the following is the tags used to insert video or audio?  
A. <video>      B. <source>      C. <track>      D. <audio>
4. Which of the following tags is used to insert a sound content?  
A. <video>      B. <source>      C. <track>      D. <audio>
5. Which of the following tags is used to insert a movie?  
A. <video>      B. <source>      C. <track>      D. <audio>





## RECAP

Yesterday we discussed the form element and form attributes where you learned that `<input>` element can be displayed in several ways, depending on the type attribute.

To test your memory, provide 5 HTML Input attribute and their functions.

HTML INPUT ATTRIBUTES	FUNCTIONS
1.	
2.	
3.	
4.	
5.	



## LESSON

Multimedia comes in many different formats. It can be almost anything you can hear or see. Examples: Images, music, sound, videos, records, films, animations, and more. Web pages often contain multimedia elements of different types and formats. The first web browsers had support for text only, limited to a single font in a single color. Later came browsers with support for colors and fonts, and images!

Audio, video, and animation have been handled differently by the major browsers. Different formats have been supported, and some formats require extra helper programs (plug-ins) to work. Multimedia elements (like audio or video) are stored in media files. The most common way to discover the type of a file, is to look at the file extension. Multimedia files have formats and different extensions like: .swf, .wav, .mp3, .mp4, .mpg, .wmv, and .avi.

### Common Video formats





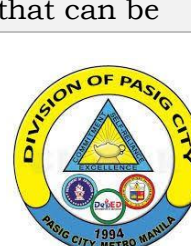
MP4 is the new and upcoming format for internet video. MP4 is recommended by YouTube. MP4 is supported by Flash Players and HTML5, however there is a lot of video formats that we can use when we are creating an HTML documents.

FORMAT	FILE	DESCRIPTION
<b>MPEG</b>	.mpg .mpeg	MPEG. Developed by the Moving Pictures Expert Group. The first popular video format on the web. Used to be supported by all browsers, but it is not supported in HTML5 (See MP4).
<b>AVI</b>	.avi	AVI (Audio Video Interleave). Developed by Microsoft. Commonly used in video cameras and TV hardware. Plays well on Windows computers, but not in web browsers.
<b>WMV</b>	.wmv	WMV (Windows Media Video). Developed by Microsoft. Commonly used in video cameras and TV hardware. Plays well on Windows computers, but not in web browsers.
<b>QuickTime</b>	.mov	QuickTime. Developed by Apple. Commonly used in video cameras and TV hardware. Plays well on Apple computers, but not in web browsers. (See MP4)
<b>RealVideo</b>	.rm .ram	RealVideo. Developed by Real Media to allow video streaming with low bandwidths. It is still used for online video and Internet TV, but does not play in web browsers.
<b>Flash</b>	.swf .flv	Flash. Developed by Macromedia. Often requires an extra component (plug-in) to play in web browsers.
<b>MPEG-4 or MP4</b>	.mp4	MP4. Developed by the Moving Pictures Expert Group. Based on QuickTime. Commonly used in newer video cameras and TV hardware. Supported by all HTML5 browsers. Recommended by YouTube.

### Common Audio Formats

MP3 is the newest format for compressed recorded music. The term MP3 has become synonymous with digital music. If your website is about recorded music, MP3 is the choice.

FORMAT	FILE	DESCRIPTION
<b>MIDI</b>	.mid .midi	MIDI (Musical Instrument Digital Interface). Main format for all electronic music devices like synthesizers and PC sound cards. MIDI files do not contain sound, but digital notes that can be





		played by electronics. Plays well on all computers and music hardware, but not in web browsers.
<b>RealAudio</b>	.rm .ram	RealAudio. Developed by Real Media to allow streaming of audio with low bandwidths. Does not play in web browsers.
<b>WMA</b>	.wma	WMA (Windows Media Audio). Developed by Microsoft. Commonly used in music players. Plays well on Windows computers, but not in web browsers.
<b>AAC</b>	.aac	AAC (Advanced Audio Coding). Developed by Apple as the default format for iTunes. Plays well on Apple computers, but not in web browsers.
<b>WAV</b>	.wav	WAV. Developed by IBM and Microsoft. Plays well on Windows, Macintosh, and Linux operating systems. Supported by HTML5.
<b>Ogg</b>	.ogg	Ogg. Developed by the Xiph.Org Foundation. Supported by HTML5.
<b>MP3</b>	.mp3	MP3 files are actually the sound part of MPEG files. MP3 is the most popular format for music players. Combines good compression (small files) with high quality. Supported by all browsers.

## HTML5 Video

Before HTML5, a video could only be played in a browser with a plug-in (like flash). The HTML5 <video> element specifies a standard way to embed a video in a web page.

## HTML5 Video Tags

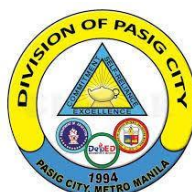
Tag	Description
<b>&lt;video&gt;</b>	Defines a video or movie
<b>&lt;source&gt;</b>	Defines multiple media resources for media elements, such as <video> and <audio>
<b>&lt;track&gt;</b>	Defines text tracks in media players

## The HTML <video> Element

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

**Example syntax for video with controls attribute:**

```
<video width="600" height="400" controls>
  <source src="video.mp4" type="video/mp4">
</video>
```



## Result:

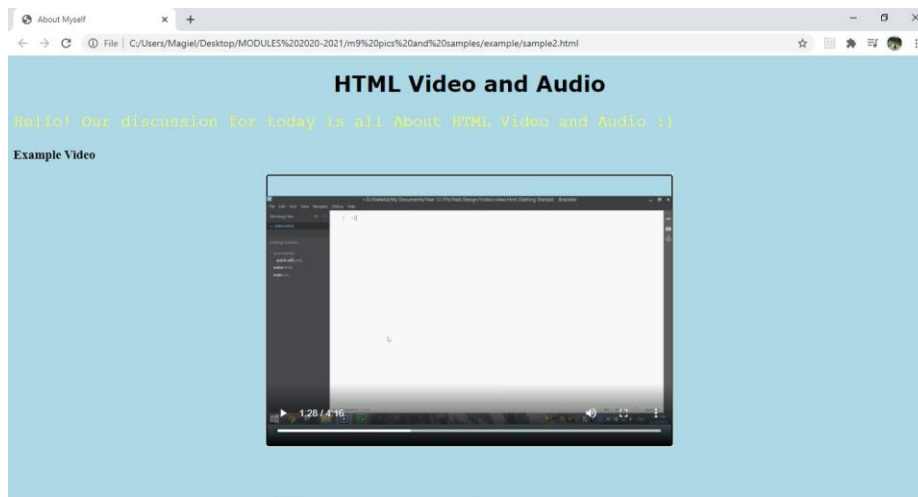


Figure 1

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 syntax for video with autoplay attribute:**

```
<video width="600" height="400" autoplay>  
<source src="video.mp4" type="video/mp4">  
</video>
```

### HTML5 Audio

Before HTML5, audio files could only be played in a browser with a plug-in (like flash). The HTML5 **<audio>** element specifies a standard way to embed audio in a web page.



## The HTML <audio> Element

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

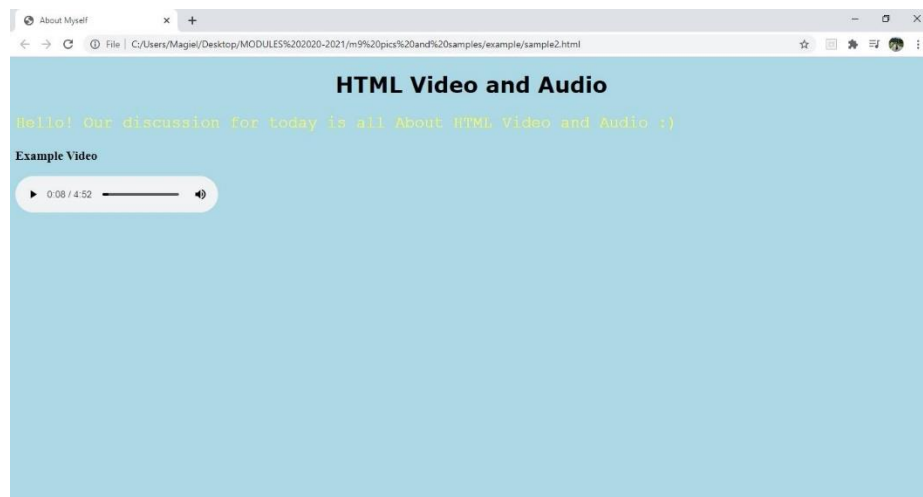
### HTML5 Audio Tags

Tag	Description
<audio>	Defines sound content
<source>	Defines multiple media resources for media elements, such as <video> and <audio>

### Example syntax for Audio:

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

### Result:

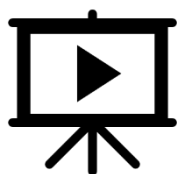


The **controls** attribute adds audio controls, like play, pause, and volume.

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.





# ACTIVITIES

## HTML Video and Audio

1. Add a heading 1 with the text **HTML Video and Audio**. Use Blue as **text color** also set it in **center**.
2. As the **background color** use your desire color.
3. For first paragraph, write all the summary of all the things that you have learned about our lesson for today HTML Video and Audio. Use 5 as **text size**.
4. Insert your **favorite music video**. Use the **control attribute** with the **width** of **600** and for **height** is **400**. Insert also heading 3 with the text **“MY FAVORITE MUSIC VIDEO”**
5. Under the Video put **Line Break and Horizontal rule**. Insert your **favorite Audio or Music**, and set control attribute for your audio and insert heading 3 with the text **“MY FAVORITE MUSIC”**

### Rubrics:

For Activity 1 the students will get total of 30 points.

Items	Points
1. Title of the webpage “HTML VIDEO and AUDIO”, text alignment and font color	5
2. Background color of the whole webpage, summarized paragraph and text size.	6
3. Inserted Video, use control attribute, put width and height attribute.	7
4. Put Line break, and Horizontal rule	5
5. Inserted Audio, and use control attribute.	7
<b>TOTAL</b>	<b>30 points</b>

\*Answer Worksheet number 8-1 and submit your answer to our group messenger





## WRAP-UP

To summarize our lesson for today, multimedia comes in many different formats, like video and audio and usually we put it in our HTML document. To insert a video or audio in our webpage there should be a syntax for that.

Inside the box below give the syntax of the following formats when we go to insert it in our HTML document.

VIDEO FORMAT	AUDIO FORMAT



## VALUING

**Directions:** Read and answer the following questions carefully in two to three sentences each number.

1. What do you think is the importance of Audio or Video in your Web page?

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2. Do you think Audio and Video have an impact when you are creating a Web page?

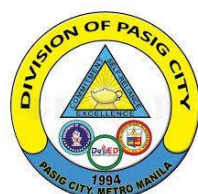
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## POST TEST

**DIRECTIONS:** Select the letter that corresponds to the correct answer.

- Which of the following attributes that add the play, pause and volume of the video?  
A. autoplay      B. controller      C. play      D. control
- Which of the following elements that allows you to specify alternative audio or video files which the browser may choose from.  
A. source      B. format      C. video      D. audio
- Which of the following attribute that customize the size of video?  
A. size      B. width and height      C. length and width      D. size and style
- This is an element which defines sounds?  
A. Music      B. Sounds      C. Video      D. Audio
- This is an attribute which makes the video to spontaneously play once you load your webpage.  
A. autoplay      B. controller      C. play      D. control
- Which of the following is the file extension for Audio formats?  
A. .aac      B. .jpeg      C. .html      D. .avi
- Which of the following is the tags used to insert video or audio?  
A. <video>      B. <source>      C. <track>      D. <audio>
- Which of the following tags is used to insert a sound content?  
A. <video>      B. <source>      C. <track>      D. <audio>
- Which of the following is the file extension for Video formats?  
A. .aac      B. .jpeg      C. .html      D. .avi
- Which of the following tags is used to insert a movie?  
A. <video>      B. <source>      C. <track>      D. <audio>



## KEY TO CORRECTION

10. A

9. D

8. D

7. B

6. A

5. A

4. D

3. B

2. A

1. D

Post-test:

5. A

4. D

3. B

2. D

1. A

Pre-test:



Recap

1. readonly – specify that the input field is read only
2. disabled– the input field is disabled
3. size– specifies the size in the characters for the input field
4. value– specifies the initial value for an input field
5. maxlength– specifies the maximum allowed length for the input field.

Wrap-up

Video Format

<video width="600" height="400" controls>
<source src="video.mp4" type="video/mp4">
</video>

Audio Format

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

# REFERENCES

- Accessed July 8, 2020 8:30 pm, <https://www.w3schools.com/>
- Accessed July 8, 2020 9:00 pm, [https://www.w3schools.com/tags/ref\\_av\\_dom.asp](https://www.w3schools.com/tags/ref_av_dom.asp)

