

2022

WEB SYSTEM LAB

LECTURE#03

HTML-Part 3

Collage of Computers & Information Technology

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Lab instructions

- Students should come prepared for the lab practice.
- Quizzes are expected anytime so students should review everything they have taken after class.
- In case a student misses a class, it is his/her responsibility to complete and understand the missed lab exercises.
- They should implement the given exercises individually OR in groups depend on exercise.
- Use meaningful names.
- Once the exercise(s) get executed, they should show the program and results to the instructors.
- Questions for lab tests and exam need **not** necessarily be **limited** to the questions in the manual, but could involve some **variations and / or combinations** of the questions

Objective of this lab:

- Mapping Image
- HTML Iframe
- HTML Multimedia

Image Mapping:

image-map is an image with clickable areas. **img**: specifies the location of the image to be included in the map. **map**: is used to create the map of clickable areas. **area**: is used within the map element to define the clickable areas.

The basic idea behind an image map is that you combine two different components:

- A map of defined linked areas
- An image.

```
<!DOCTYPE html>
<html>
  <body>
    
    <map name="mymap">
      <area shape="circle" coords="37,198,51,198" href="www.chrome.com">
      <area shape="rect" coords="52,12,100,20" href="www.youtube.com">
    </map>
  </body>
</html>
```

- Linking to an image map: The **usemap** attribute.

to connect an image map with an image, simply add the **usemap** attribute to the `` for the image. In the above example, the image map is called " **mymap** ", so our `` tag looks like this ``

So, each image map is given a name (map-name), and one or more `<area>` tags to specify the hot spots in the image.

The area tag has the following attributes:

shape="rect | circle | poly | default" Specifies the shape of the area. Possible values are:

- rect (a rectangular shape),
- circle (a circular shape),
- poly (an arbitrary polygon, with 3 or more points), or
- default (which represents the remaining area of the image not defined by any area tags).

coords="area-coordinates"

Specifies the coordinates that define the corners of the shape. The coordinates **depend on the shape specified** in the shape attribute.

Shape	Coordinates
rect	coords="x1,y1,x2,y2" (The top left and bottom right corners of the rectangle)
circle	coords="x,y,r" (The centre and radius of the circle)
poly	coords="x1,y1,x2,y2,x3,y3,..." (The corners of the polygon)

href="area-hyperlink"

This is the URL that you'd like to link the hot spot to. It works just like a standard `` tag. - You can specify a **nohref** attribute instead, in which case the hot spot will not link to anything. -

target="hyperlink-target"

This is the optional target window or frame to open the linked URL in. Again, it works just like the target attribute in a standard `` tag.

title="area-title"

This attribute allows you to give the area a title. When the mouse is rolled over this hot spot, the browser will usually pop up a tool tip displaying this title.

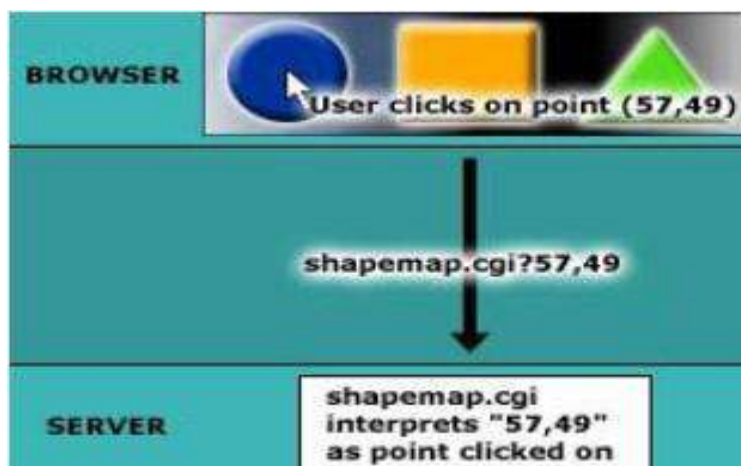
Server-side image maps

To define a server-side map, you simply include the **ismap** attribute, and place an `<a href>` tag around the image, specifying the server-side script to send the (x,y) information to:

```
<a href="shapemap.cgi">

</a>
```

Then, when you click on the image, the browser sends the (x,y) coordinate of the point that you clicked on to the server-side script, which can then interpret these (x,y) values and take an appropriate action. The coordinates are appended as parameters to the end of the script URL:



For example, if you wanted the user to choose a country from a **world map image**, you could use the server-side script to calculate which country was clicked on, and then display information about that country.

HTML Iframes

An iframe is used to display a web page within a web page.

Iframe Syntax

```
<iframe src="WS_CODE_01.html " height="200" width="300"></iframe>
```

- Output:



- **Playing a YouTube Video in HTML Using iFrame:**

To play your video on a web page, do the following:

```
<iframe width="420" height="315"
src="https://www.youtube.com/embed/tgbNymZ7vqY">
</iframe>
```

- Output:



- **YouTube Autoplay:**

You can have your video **start playing automatically** when a user visits that page by adding a simple parameter to your YouTube URL.

- Value 0 (default): The video will not play automatically when the player loads.
- Value 1: The video will play automatically when the player loads.

```
<iframe width="420" height="315"
src="https://www.youtube.com/embed/tgbNymZ7vqY?autoplay=1"
"> </iframe>
```

- *YouTube Loop*

- Value 0 (default): The video will play only once.
- Value 1: The video will loop (forever).

```
<iframe width="420" height="315"
src="https://www.youtube.com/embed/tgbNymZ7vqY?playlist=tgbNymZ7vqY&loop=1"
> </iframe>
```

HTML Multimedia

Multimedia on the web is sound, music, videos, movies, and animations.

Common Video Formats

- MP4 is the new and upcoming format for internet.
- MP4 is recommended by YouTube.
- MP4 is supported by Flash Players.
- MP4 is supported by HTML5.

Also there are many extensions other than mp4 like WebM, and Ogg video.

Audio Formats

MP3 is the newest format for compressed recorded music. The term MP3 has become synonymous with digital music.

Also there are many extensions other than mp3 like WAV, and Ogg audio

The HTML <video>

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

```
<video width="320" height="240" autoplay controls>
  <source src="Titanic.mp4" type="video/mp4">

  <source src="movie.ogg" type="video/ogg">
  Your browser does not support the video
  tag.
</video>-
```

- The **controls** attribute adds video controls, like play, pause, zoom, and volume.
- It is a good idea to always include **width** and **height** attributes.
- 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 **Autoplay** attribute used to start a video automatically when the page is loaded.

The HTML 5 <audio>

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

```
<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>
```

- 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.

For more HTML elements information refer to: <https://www.w3schools.com/tags/>