



Web Technologies and Programming

Lecture 08

Adding Image, audio and video files to web pages

Summary of the previous lecture

- **Internal links**
- **External links**
- **Directory Structure**
- **Internal document reference**
- **Some attributes of <a>**
- **Other type of links**

Outline

- **Adding images to web pages**
- **Using images as links**
- **Image map**
- **Adding video to web pages**
- **Adding audio to web pages**

1. Adding images to web pages

- **** tag is used to add images to web pages
- **SRC** attribute of the **** tag is used to indicate the source of the image
- The **** tag is empty, it contains attributes only, and does not have a closing tag.

1. Adding images to web pages

Images can be added as follows

- **We can add an image by**
 - ****
 - ****

1. Adding images to web pages

- **HTML Images Syntax**
- In HTML, images are defined with the **** tag.
- The **** tag is empty, it contains attributes only, and does not have a closing tag.
- The **src** attribute specifies the URL (web address) of the image:
- ****

1. Adding images to web pages

- **The alt Attribute**
- **The alt attribute specifies** an alternate text for an image, if the image cannot be displayed.
- **The alt attribute provides** alternative information for an image if a user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).
- **If a browser cannot find an image, it will display the alt text**

1. Adding images to web pages

Images can be added as follows

- **IMG** stands for "**image**." It announces to the browser that an image will go here on the page.
- **SRC** stands for "**source**." This again is an attribute. It's telling the browser where to go to find the image.

1. Adding images to web pages

Images supported by web

- .jpg
- .gif
- .png
- .jpeg
- .bmp

1. Adding images to web pages...

The screenshot shows a Notepad window titled 'img - Notepad' with the following HTML code:

```
<html>
<head>
<title>adding images</title>
</head>
<body>
<h1>Adding images</h1>
<br>

</body>
</html>
```

Annotations with red arrows point to specific parts of the code:

- Image tag**: Points to the opening `<img` tag.
- Src attribute**: Points to the `src` attribute.
- Image path and name**: Points to the value `"../../images/img1.jpg"` within the `src` attribute.

To the right of the code is a diagram of a file system structure:

- Root Directory** (yellow box)
 - examples** (yellow box)
 - ex.html** (red text)
 - images** (yellow box)
 - img1.jpg** (red text)

1. Adding images to web pages...



1.1 Attributes of tag

- **Height and width:**
- You can use the **style** attribute to specify the width and height of an image.
- **The values are specified in pixels (use px after the value):**
- **Specifies the height and width of an image**

1.1 Attributes of tag

- **Alt attribute:**
- Shows alternate text when an image is not available

1.1 Attributes of tag

- **Align attribute:**
- **Align the image as desired**

1.1 Attributes of tag

- **Align attribute:**
- **Some values for aligned are**

✓ Value	Description
---------	-------------

✓ left	Align the image to the left
--------	-----------------------------

✓ right	Align the image to the right
---------	------------------------------

✓ middle	Align the image in the middle
----------	-------------------------------

✓ top	Align the image at the top
-------	----------------------------

✓ bottom	Align the image at the bottom
----------	-------------------------------

1.1 Images in Another Folder

- **If not specified**, the browser expects to find the image in the same folder as the web page.
- However, **it is common to store images in a sub-folder**. You must then include the folder name in the src attribute:
- Example
- ``

1.1 Animated Images

- The GIF standard allows animated images:
- **Example**
- ``

1.1 Attributes of tag ...

- **Border attribute:**
 - Add border around the image
- **

1.1 Attributes of tag ...

- **Differences Between HTML 4.01 and HTML5**

The following attributes: align, border, hspace, and vspace are not supported in HTML5.

1.1 Attributes of tag ...

```
hw - Notepad
File Edit Format View Help
<html>
<head>
<title>Using height and width</title>
</head>
<body>
<h1>Using height and width</h1>
<br>

<h3>Height and width is 200</h3>
<br>

<h3>Height and width is 300</h3>
</body>
```

1.1 Attributes of tag ...

Using height and width - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2013%20(HTML%20images,%20audio%20and%20video)



Height and width is 200



Height and width is 300

1.1 Attributes of tag ...

```
border - Notepad
File Edit Format View Help
<head>
<title>Using border and hspace</title>
</head>
<body>
<h1>Image with text alignment</h1>
<br>
This image shows
the main gate of Rohtas Fort
<br>
This image sh
the main gate of Rohtas Fort
</body>
</html>
```


1.1 Attributes of tag ...

Using border and hspace - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2013%20(HTML%20images,%20audio%20and%20v

This image shows the main gate of Rohtas Fort

Align top

This image shows the main gate of Rohtas Fort

Align middle



The screenshot shows a web browser window with a file path in the address bar. It displays two identical images of the main gate of Rohtas Fort, each preceded by the text "This image shows the main gate of Rohtas Fort". The top image is aligned to the top of the text, and the bottom image is aligned to the middle of the text. Red double-headed arrows indicate the alignment.

1.1 Attributes of tag ...

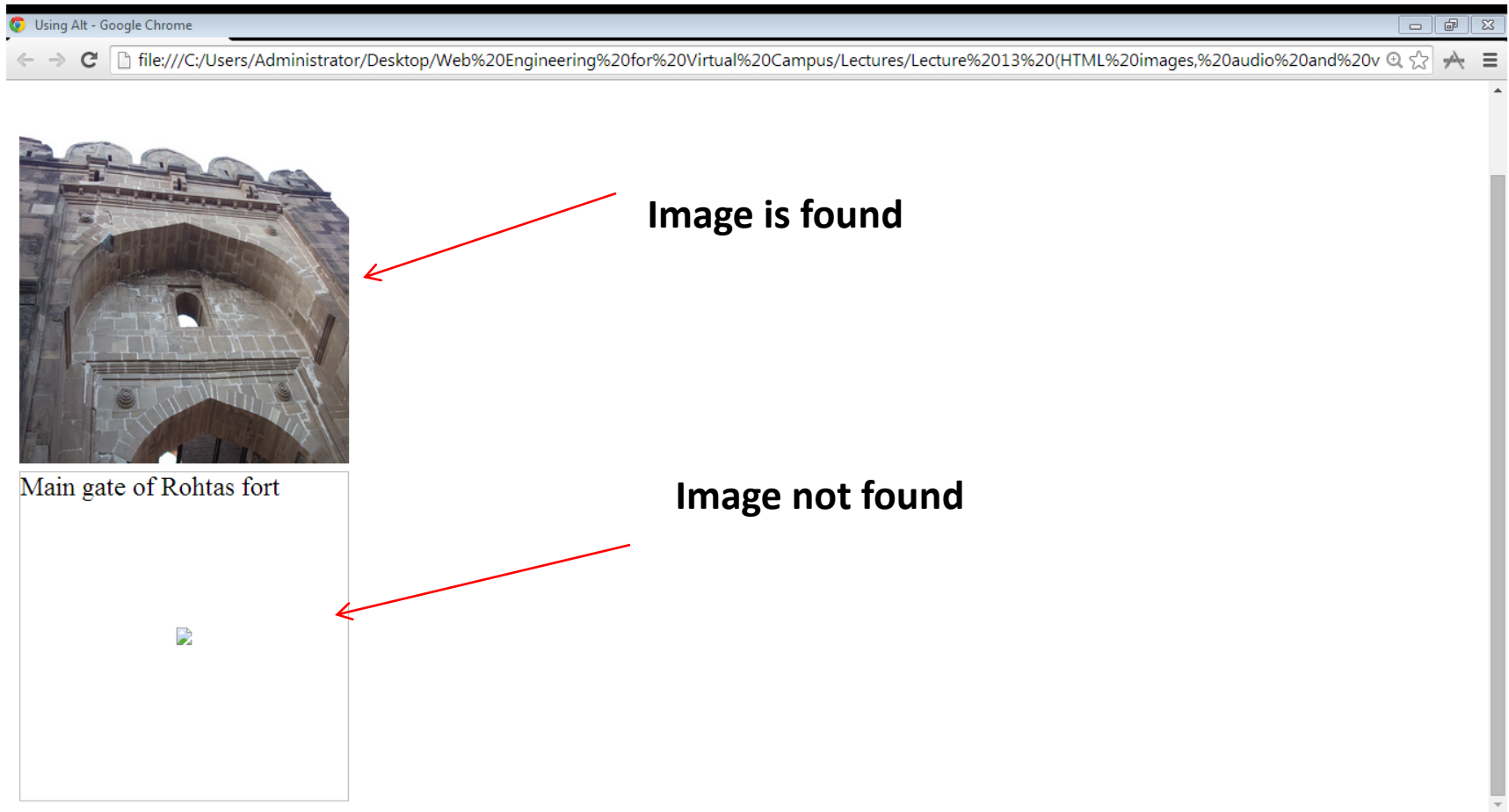
```
alt - Notepad
File Edit Format View Help
<html>
<head>
<title>Using Alt</title>
</head>
<body>
<h1>Adding images</h1>
<br>

<br>

</body>
</html>
```

Wrong image name

1.1 Attributes of tag ...



1.1 Attributes of tag ...

```
border - Notepad
File Edit Format View Help
<html>
<head>
<title>Using border and hspace</title>
</head>
<body>
<h1>Images with border</h1>
<br>

</body>
</html>
```

1.1 Attributes of tag ...



2. Using images for linking

- We can put images between `<a>` and `</a>` tags instead of text to link other documents or portions of the page
 - `<a href="page-reference"> </a>`
 - `<a href="abc.html"> </a>`

2. Using images for linking...

imglink - Notepad

Link Edit Format View Help

```
<a href="http://www.nust.edu.pk/Pages/Home.aspx">  
</a>  
  
<a href="http://www.comsats.edu.pk/">  
</a>  
  
<a href="http://www.num1.edu.pk/">  
</a>  
  
<a href="http://www.nust.edu.pk/Pages/Home.aspx">  
<img src="../../../images/arid.jpg" align="middle" height=
```

Image

3. Image maps

- **Image maps** allow you to add **multiple links** to the **same image**
- Each link can **point** to a different page
- Each of these clickable areas is known as a **hotspot**

3. Image maps...

- **Defining a map:**
- **Step1 (Define a map):**

<map name="map name">

**<area shape="link-shape" coords="coordinates
of link area" href="page-reference">**

</map>

3. Image maps...

- **Defining a map:**
- **Area can contain following values**
- **Rect**
- **Circle**
- **coord**

3. Image maps...

- **Defining a map:**
- **Step2(using the map):**
- **Applying map on an image**

3. Image maps...

map - Notepad

File Edit Format View Help

```
<body>
<h1>Image Maps</h1>
<MAP NAME="MYMAP">
  <AREA SHAPE="RECT" COORDS="210,75,275,100"
  HREF="http://ww3.comsats.edu.pk/library/"
  title="Library">
  <AREA SHAPE="RECT" COORDS="20,55,110,120"
  HREF="http://ww3.comsats.edu.pk/ee/" title="EE depar
  <AREA SHAPE="RECT" COORDS="140,55,180,120"
  HREF="http://ww3.comsats.edu.pk/ee/" title="CS depar
</MAP>
<center>

</center>
```

Map → **Map name** → **Area tag** → **Shape** → **Coordinates** → **Link** → **End of Map** → **Adding an Image** → **Using a map**

4. Adding videos to web pages

- The **<video>** tag is used to add a video to a web page
- This tag is provided in **HTML5**
- The **src** attribute of the **<video>** tag is used to indicate the source of the video
- We can add a video to our page as
 - **<video src="abc.mp4">**

4. Adding videos to web pages

- Videos can also be added as

<video width="320" height="240" controls>

<source src="movie.mp4" type="video/mp4">

<source src="movie.ogg" type="video/ogg">

Your browser does not support the video tag.

</video>

4. Adding videos to web pages

- It supports following video formats

File Format

Media Type

✓ MP4

video/mp4

✓ WebM

video/webm

✓ Ogg

video/ogg

4. Adding videos to web pages...

- **Attributes of <video> tag:**
 - **Auto-play**
 - **Controls**
 - **Height**
 - **Loop**

4. Adding videos to web pages...

video - Notepad

File Edit Format View Help

```
<html>
<head>
<title>adding video</title>
</head>
<body>
<h1>Adding Video</h1>
<br>
<video src="../../video/vid.mp4"
autoplay loop controls height="300">
</video>
</body>
</html>
```

Video tag

Source of the video

Auto-play attribute

Loop attribute

Controls attribute

5. Adding audio to web pages...

- The **<audio>** tag is used to add a audio to a web page
- This tag is provided in **HTML5**
- The **src** attribute of the **<audio>** tag is used to indicate the source of the audio
- We can add a audio to our page as
 - **<audio src="abc.mp3">**

5. Adding audio to web pages...

- Audio can also be added as **<audio controls>**

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

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

Your browser does not support the audio tag.

`</audio>`

5. Adding audio to web pages...

- **Audio formats supported by audio tag are**

File Format

Media Type

MP3

audio/mpeg

Ogg

audio/ogg

Wav

audio/wav

5. Adding audio to web pages...

- **Attributes of <audio> tag:**
 - **Auto-play**
 - **Controls**
 - **Loop**

5. Adding audio to web pages...

- **Control In audio**
- The controls attribute is a boolean attribute.
- **Audio controls include:**
 - Play
 - Pause
 - Seeking
 - Volume

Summary

- **Adding images to web page**
- **Using images as links**
- **Image map**
- **Adding audio and video to web page**

Summary

- Use the HTML **** element to define an image
- Use the HTML **src** attribute to define the URL of the image
- Use the HTML **alt** attribute to define an alternate text for an image, if it cannot be displayed
- Use the HTML **width** and **height** attributes to define the size of the image
- Use the HTML **<map>** element to define an image-map
- Use the HTML **<area>** element to define the clickable areas in the image-map

THANK YOU