HTML5:
Links & Images

HTML Links

Links are found in nearly all web pages. Links allow users to click their way from page to page.

Hyperlinks

- HTML links are hyperlinks.
- You can click on a link and jump to another document.
- When you move the mouse over a link, the mouse arrow will turn into a little hand.
- **Note:** a link does not have to be text. It can be an image or any other HTML element.

HTML Links - Syntax

In HTML, links are defined with the **<a>** tag:

link text

<!DOCTYPE html>

<html>

<body>

<p>google.com</p>

</body>

</html>

HTML Links - Syntax

link text

- The **href** attribute specifies the destination address (http://www.w3schools.com/html/) of the link.

- The **link text** is the visible part (visit our html tutorial).

- Clicking on the link text will send you to the specified address.

- **note:** Without a forward slash on subfolder addresses, you might generate two requests to the server. Many servers will automatically add a forward slash to the address, and then create a new request.

Local Links

A local link (link to the same web site) is specified with a relative url (without http://www....).

`<a href="html_images.asp">html images</a>`

```
<!DOCTYPE html>
<html>
<body>

<h2>Local Links</h2>

<p><a href="html_images.asp">HTML Images</a> is a link to a page on this website.</p>

<p><a href="https://www.w3.org/">W3C</a> is a link to a website on the World Wide Web.</p>

</body>
</html>
```

Local Links

HTML Images is a link to a page on this website.

W3C is a link to a website on the World Wide Web.

HTML Link Colors

- By default, a link will appear like this (in all browsers):
- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red
- You can change the default colors, by using styles:

```
<style>
a:link    {color:green; background-color:transparent; text-decoration:none}
a:visited {color:pink; background-color:transparent; text-decoration:none}
a:hover   {color:red; background-color:transparent; text-decoration:underline}
a:active  {color:yellow; background-color:transparent; text-decoration:underline}
</style>
```

```html
<!DOCTYPE html>
<html>
<head>
<style>
a:link {
  color: green;
  background-color: transparent;
  text-decoration: none;
}
a:visited {
  color: pink;
  background-color: transparent;
  text-decoration: none;
}
a:hover {
  color: red;
  background-color: transparent;
  text-decoration: underline;
}
a:active {
  color: yellow;
  background-color: transparent;
  text-decoration: underline;
}
</style>
</head>
<body>

<h2>Link Colors</h2>

<p>You can change the default colors of links</p>

<a href="html_images.asp" target="_blank">HTML Images</a>

</body>
</html>
```

Link Colors

You can change the default colors of links

HTML Images

Link Colors

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HTML Images

Link Colors

You can change the default colors of links

HTML Images

HTML Links - The target Attribute

The **target** attribute specifies where to open the linked document.

The **target** attribute can have one of the following values:

_blank - opens the linked document in a new window or tab

_self - opens the linked document in the same window/tab as it was clicked (this is default)

_parent - opens the linked document in the parent frame

_top - opens the linked document in the full body of the window

framename - opens the linked document in a named frame

HTML Links - The target Attribute

This example will open the linked document in a new browser window/tab:

visit w3schools!

TIP: If your webpage is locked in a frame, you can use target="_top" to break out of the frame:

html5 tutorial!

```
<!DOCTYPE HTML>
<HTML>
<BODY>


<A
HREF="HTTP://WWW.W3SCHOOLS.C
OM/HTML/" TARGET="_BLANK">VISIT
OUR HTML TUTORIAL!</A>

<P>IF YOU SET THE TARGET
ATTRIBUTE TO "_BLANK", THE LINK
WILL OPEN IN A NEW BROWSER
WINDOW OR TAB.</P>


</BODY>

</HTML>
```

```
<!DOCTYPE html>
<html>
<body>


<p>Locked in a frame? <a
href="http://www.w3schools.
com/html/"
target="_top">Click
here!</a></p>


</body>
</html>
```

HTML Links - Image as Link

It is common to use images as links:

```
<a href="default.asp">
  <img src="smiley.gif" alt="html tutorial" style="width:42px;height:42px;border:0;">
</a>
```

NOTE: *Border:0; is added to prevent IE9 (and earlier) from displaying a border around the image (when the image is a link).*

```
<!DOCTYPE html>
<html>
<body>

<h2>Image Links</h2>

<p>The image is a link. You can click on it.</p>

<a href="default.asp">
  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;border:0">
</a>

<p>We have added "border:0" to prevent IE9 (and earlier) from displaying a border around the image.
</p>

</body>
</html>
```

Image Links

The image is a link. You can click on it.

We have added "border:0" to prevent IE9 (and earlier) from displaying a border around the image.

HTML Links - Create a Bookmark

- HTML bookmarks are used to allow readers to jump to specific parts of a web page.

- Bookmarks can be useful if your webpage is very long.

- To make a bookmark, you must first create the bookmark, and then add a link to it.

- When the link is clicked, the page will scroll to the location with the bookmark.

Example

First, create a bookmark with the `id` attribute:

```
<h2 id="C4">Chapter 4</h2>
```

Then, add a link to the bookmark ("Jump to Chapter 4"), from within the same page:

```
<a href="#C4">Jump to Chapter 4</a>
```

Or, add a link to the bookmark ("Jump to Chapter 4"), from another page:

Example

```
<a href="html_demo.html#C4">Jump to Chapter 4</a>
```

```html
<!DOCTYPE html>
<html>
<body>

<p><a href="#C4">Jump to Chapter 4</a></p>

<h2>Chapter 1</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 2</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 3</h2>
<p>This chapter explains ba bla bla</p>

<h2 id="C4">Chapter 4</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 5</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 6</h2>
<p>This chapter explains ba bla bla</p>

</body>
</html>
```

Jump to Chapter 4

Chapter 1

This chapter explains ba bla bla

Chapter 2

This chapter explains ba bla bla

Chapter 3

This chapter explains ba bla bla

Chapter 4

This chapter explains ba bla bla

Chapter 5

This chapter explains ba bla bla

Chapter 6

This chapter explains ba bla bla

External Paths

External pages can be referenced with a full URL or with a path relative to the current web page.

This example uses a full URL to link to a web page:

Example

```
<a href="https://www.w3schools.com/html/default.asp">HTML tutorial</a>
```

This example links to a page located in the html folder on the current web site:

Example

```
<a href="/html/default.asp">HTML tutorial</a>
```

This example links to a page located in the same folder as the current page:

Example

```
<a href="default.asp">HTML tutorial</a>
```

Chapter Summary

- Use the **<a>** element to define a link
- Use the **href** attribute to define the link address
- Use the **target** attribute to define where to open the linked document
- Use the **<img>** element (inside <a>) to use an image as a link
- Use the **id** attribute (id="*value*") to define bookmarks in a page
- Use the **href** attribute (href="#*value*") to link to the bookmark

HTML Images

Images can improve the design and the appearance of a web page.

<img src="pic_trulli.jpg" alt="Italian Trulli">

<img src="img_chania.jpg" alt="Flowers in Chania">

<img src="img_girl.jpg" alt="Girl in a jacket">

Styling Images

The image below has the width attribute set to 128 pixels, but the stylesheet overrides it, and sets the width to 100%.

The image below uses the style attribute, where the width is set to 128 pixels which overrides the stylesheet:

Images in Another Folder

```html
<img src="/images/html5.gif" alt="HTML5 Icon" style="width:128px;height:128px;">
```

Images on Another Server

```html
<img src="https://www.w3schools.com/images/w3schools_green.jpg" alt="W3Schools.com">
```

Animated Images

```html
<img src="programming.gif" alt="Computer Man" style="width:48px;height:48px;">
```

Using an Image as a Link

To use an image as a link, put the <img> tag inside the <a> tag:

  <img src="smiley.gif" alt="html tutorial" style="width:42px;height:42px;border:0;">

Note: border:0; is added to prevent IE9 (and earlier) from displaying a border around the image (when the image is a link).

```
<!DOCTYPE html>
<html>
<body>

<h2>Image as a Link</h2>
<p>The image is a link. You can click on it.</p>

<a href="default.asp">
  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;border:0;">
</a>

<p>Add "border:0;" to prevent IE9 (and earlier) from displaying a border around the image.</p>

</body>
</html>
```

Image as a Link

The image is a link. You can click on it.

Add "border:0;" to prevent IE9 (and earlier) from displaying a border around the image.

Image Floating

Use the CSS **float** property to let the image float to the right or to the left of a text:

```
<p><img src="smiley.gif" alt="smiley
face" style="float:right;width:42px;height:42px;">
the image will float to the right of the text.</p>

<p><img src="smiley.gif" alt="smiley
face" style="float:left;width:42px;height:42px;">
the image will float to the left of the text.</p>
```

Floating Images

Float the image to the right:

A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.

Float the image to the left:

A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.

Image Maps

- Use the <map> tag to define an image-map. An image-map is an image with clickable areas.

- The name attribute of the <map> tag is associated with the <img>'s use map attribute and creates a relationship between the image and the map.

- The <map> tag contains a number of <area> tags, that defines the clickable areas in the image-map:

Image Maps

In the image below, click on the computer, the phone, or the cup of coffee:

Click on the computer, the phone, or the cup of coffee to go to a new page and read more about the topic:

Computer

Wikipedia says:

A computer is a device that can be instructed to carry out arbitrary sequences of arithmetic or logical operations automatically.

Read more about computer on https://en.wikipedia.org/wiki/Computer

Phone

Wikipedia says:

A telephone, or phone, is a telecommunications device that permits two or more users to conduct a conversation when they are too far apart to be heard directly.

Read more about phone on https://en.wikipedia.org/wiki/Telephone

Coffee

Wikipedia says:

Coffee is a brewed drink prepared from roasted coffee beans, which are the seeds of berries from the Coffea plant.

Read more about coffee on https://en.wikipedia.org/wiki/Coffee

Computer

Wikipedia says:

A computer is a device that can be instru *logical operations automatically.*

Read more about computer on https://en.wiki

Phone

Wikipedia says:

A telephone, or phone, is a t *conduct a conversation wher*

Read more about phone on https:

Coffee

Wikipedia says:

Coffee is a brewed drink prepared from roasted coffee beans, which are the seeds of berries *from the Coffea plant.*

Read more about coffee on https://en.wikipedia.org/wiki/Coffee

Background Image

```html
<!DOCTYPE html>
<html>
<body style="background-image:url('clouds.jpg');">

<h2>Background Image</h2>

<p>By default the background image will repeat itself if it is smaller than the element where it is
specified, in this case the BODY element.</p>


</body>
</html>
```
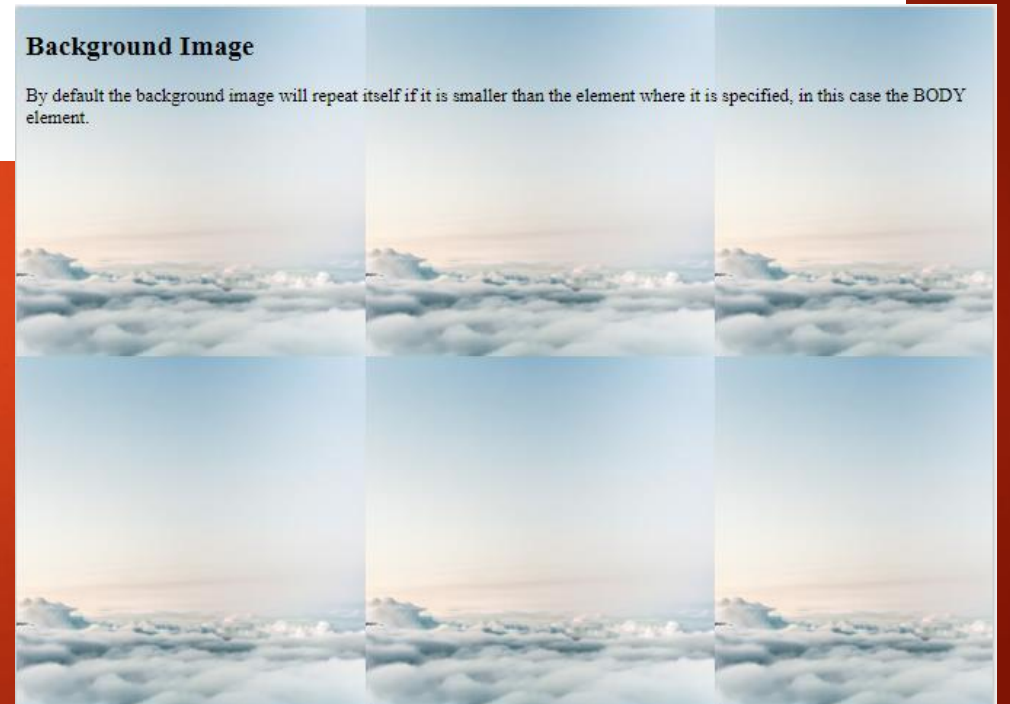
Background Image

To add a background image on a paragraph, specify the background-image property on the P element:

```
<body>

<p style="background-image:url('clouds.jpg');">
...
</p>

</body>
```

Background Image

```html
<!DOCTYPE html>
<html>
<body>

<h2>Background Image</h2>

<p style="background-image:url('clouds.jpg');">
You can specify background images<br>
for any visible HTML element.<br>
In this example, the background image<br>
is specified for this paragraph.<br>
By default, the background-image<br>
will repeat itself in the direction(s)<br>
where it is smaller than the element<br>
where it is specified. (Try resizing the<br>
browser window to see how the<br>
background image behaves.
</p>

</body>
</html>
```

Background Image

You can specify background images
for any visible HTML element.
In this example, the background image
is specified for this paragraph.
By default, the background-image
will repeat itself in the direction(s)
where it is smaller than the element
where it is specified. (Try resizing the
browser window to see how the
background image behaves.

The <picture> Element

- HTML5 introduced the <picture> element to add more flexibility when specifying image resources.

- The <picture> element contains a number of <source> elements, each referring to different image sources. This way the browser can choose the image that best fits the current view and/or device.

- Each <source> element have attributes describing when their image is the most suitable.

- The browser will use the first <source> element with matching attribute values, and ignore any following <source> elements.

The <picture> Element

Show one picture if the browser window (viewport) is a minimum of 650 pixels, and another image if not, but larger than 465 pixels.

```
<picture>
  <source media="(min-width: 650px)" srcset="img_pink_flowers.jpg">
  <source media="(min-width: 465px)" srcset="img_white_flower.jpg">
  <img src="img_orange_flowers.jpg" alt="Flowers" style="width:auto;">
</picture>
```

Note: Always specify an <img> element as the last child element of the <picture> element. The <img> element is used by browsers that do not support the <picture> element, or if none of the <source> tags matched.

The \<picture\> Element

```html
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>

<h2>The picture Element</h2>

<picture>
  <source media="(min-width: 650px)" srcset="img_pink_flowers.jpg">
  <source media="(min-width: 465px)" srcset="img_white_flower.jpg">
  <img src="img_orange_flowers.jpg" alt="Flowers" style="width:auto;">
</picture>

<p>Resize the browser to see different versions of the picture loading at different viewport sizes.
The browser looks for the first source element where the media query matches the user's current viewport width,
and fetches the image specified in the srcset attribute.</p>

<p>The img element is required as the last child tag of the picture declaration block.
The img element is used to provide backward compatibility for browsers that do not support the
picture element, or if none of the source tags matched.
</p>

<p><strong>Note:</strong> The picture element is not supported in IE12 and earlier or Safari 9.0
and earlier.</p>

</body>
</html>
```

The <picture> Element

HTML Screen Readers

A screen reader is a software program that reads the HTML code, converts the text, and allows the user to "listen" to the content. Screen readers are useful for people who are blind, visually impaired, or learning disabled.

Chapter Summary

- Use the HTML <img> 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 CSS width and height properties to define the size of the image (alternatively)

- Use the CSS float property to let the image float

- Use the HTML <map> element to define an image-map

- Use the HTML <area> element to define the clickable areas in the image-map

- Use the HTML <img>'s usemap attribute to point to an image-map

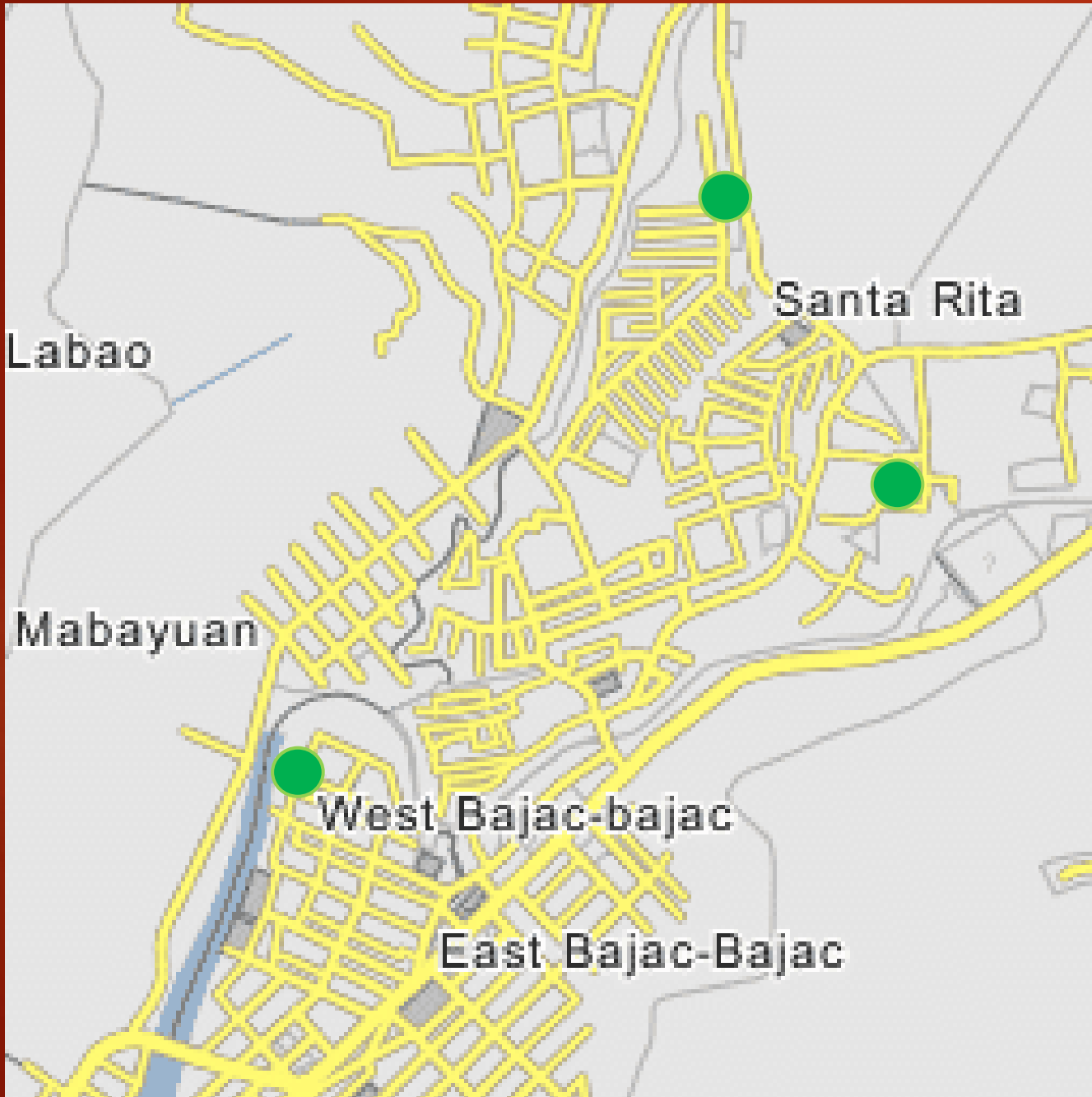- Use the HTML <picture> element to show different images for different devices

ACTIVITY 1

- Create 3 Links for LuzViMinda
- No same set
- As much as possible, promote locations that are less common

ACTIVITY 2

Olongapo, officially the **City of Olongapo** (Tagalog: *Lungsod ng Olongapo*; Ilokano: *Siudad ti Olongapo*; Sambal: *Siyodad nin Olongapo*; Kapampangan: *Lakanbalen ning Olongapo*; Pangasinan: *Siyudad na Olongapo*) or simply as **Olongapo City**, is a 1st class highly urbanized city in Central Luzon (Region III), Philippines. Located in the province of Zambales but governed independently from the province, it has a population of 233,040 people according to the 2015 census.[5]

- Create 3 Links
- No same set
- Top 3
- Museums, Colleges, Churches, Historical Places, Hotels, Restaurants, etc.

Labao

Santa Rita

Mabayuan

West Bajac-bajac

East Bajac-Bajac