CSE-465

Web Programming

HTML & CSS

Reference:
https://www.internetingishard.com/

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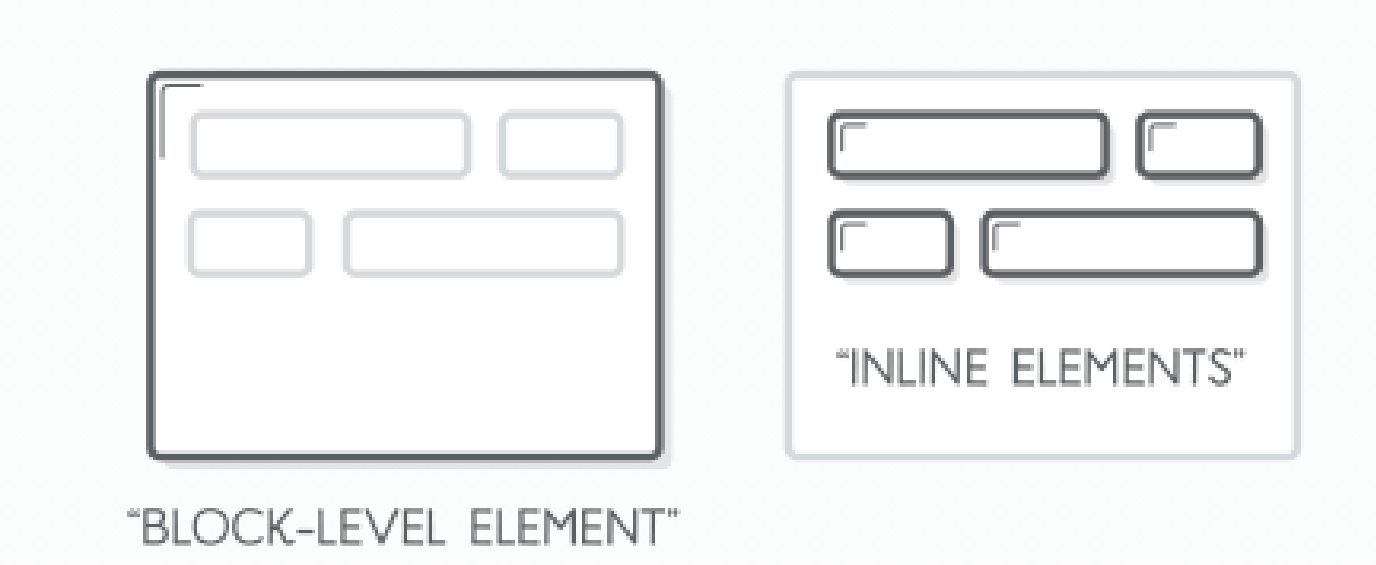
Block-Level vs Inline



Empty Elements

Line Breaks

```
<p>Regards,<br/>
The Authors</p>
```

Horizontal Rules

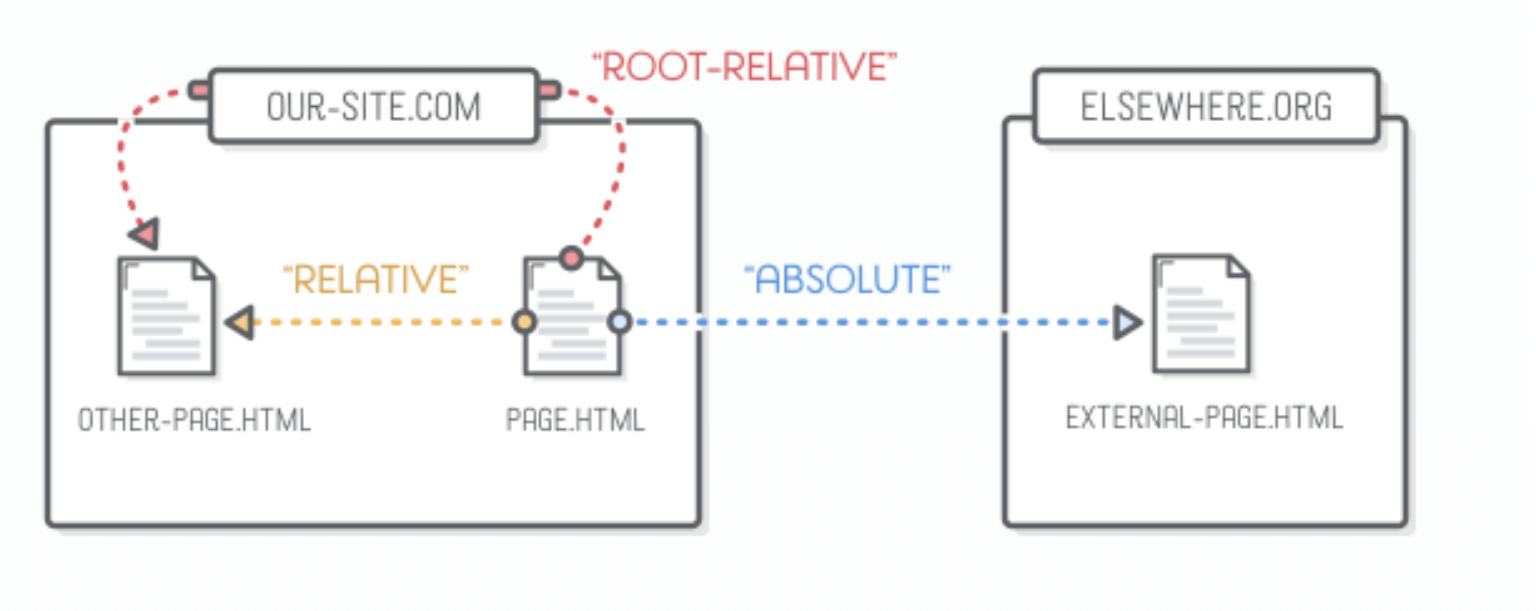
```
<h2>Empty Elements</h2>

<p>Thanks for reading! Interneting should be getting easier now.</p>

<p>Regards,<br/>
The Authors</p>

<hr/>

<p>P.S. This page might look like crap, but we'll fix that with some CSS
soon.</p>
```

Trailing slash is optional in empty elements

The trailing slash (/) in all empty HTML elements is entirely optional. The above snippet could also be marked up like this (note the lack of / in the <br> and <hr> tags):

Linking

1. Absolute,
2. Relative, and
3. Root-relative links



Important note

Never use spaces in Folder names, because

- Spaces are not allowed in URL and it is replaced with a special character %20.
- The name may be visible to the user

URL: links-and-images/spaces%20are%20bad.html

HTML Elements Overview

Category	Tags
Basic Tags	<html> </html> <head> </head> <title> </title> <body> </body>
Text Tags	...
Link	
Formatting	
Tables	<table> </table> <th> </th> <tr> </tr> <td> </td>

Category	Tags
List	
Graphics	<hr> <img src="#" alt="#">
Input	<form> </form> <input type="text"> name="inp1"> <input type="checkbox"> name="inp2" value="val1"> <label for="id"> <input type="submit">

See all the tags here:
https://www.w3schools.com/tags/default.asp

HTML Elements

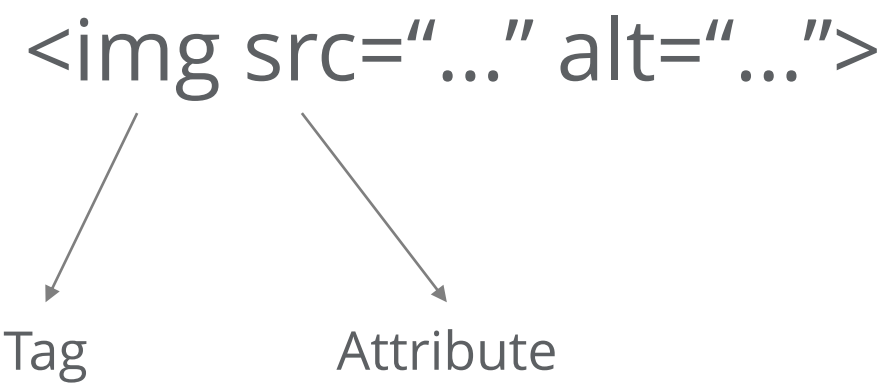


Image vs. Links

Linking image from outside

```
<img src='some-photo.jpg'/>
```

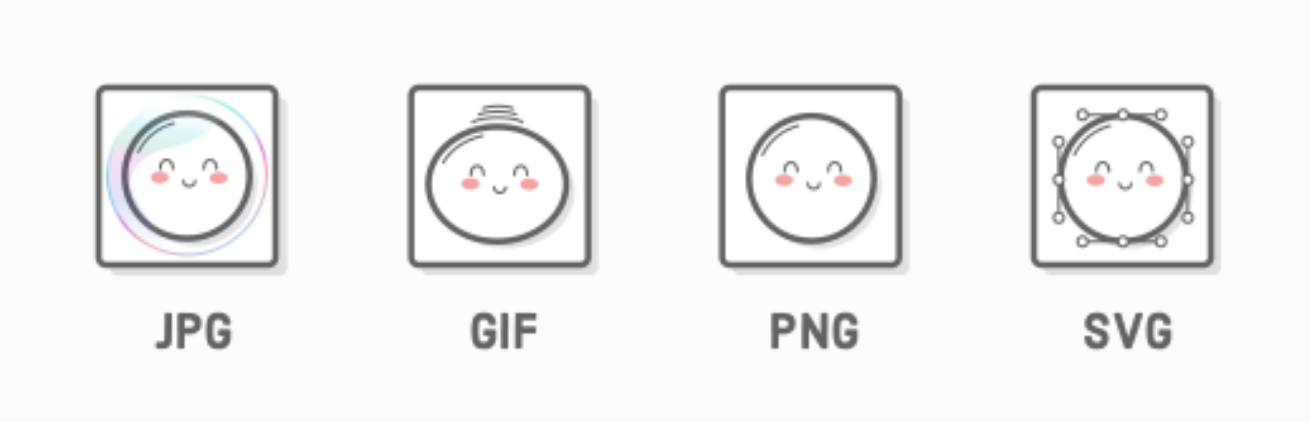
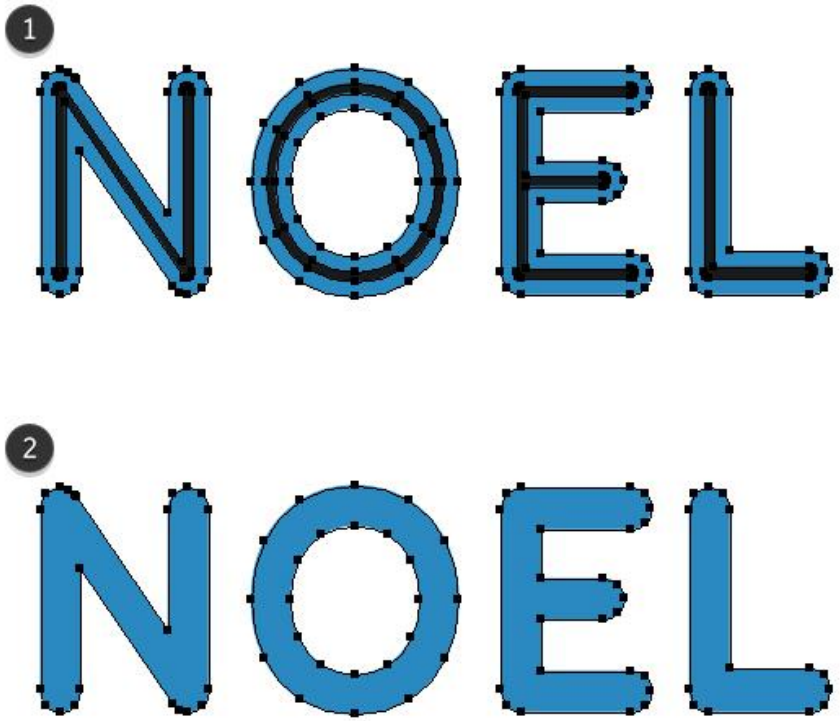


Image formats

Format	Good	Bad
JPG	Handling large color palettes without exorbitantly increasing file size. This makes them great for photos and images with lots of gradients in them	JPGs don’t allow for transparent pixels
GIF	Go-to option for simple animations	Somewhat limited in terms of color palette. Transparent pixels are a binary option for GIFs, meaning you can’t have semi-opaque pixels.
PNG	Deals with opacity just fine, and they don’t have color palette limitations. Excellent fit for icons, technical diagrams, logos, etc.	Larger size
SVG	Can scale up or down to any dimension without loss of quality.	Requires vector graphics software to design

Issue with SVG

There is one potential issue with SVGs: for them to display consistently across browsers, you need to convert any text fields to outlines using your image editor (e.g., Abode Illustrator or Sketch). If your images contain a lot of text (like the fancy screenshots in this tutorial), this can have a big impact on file size.



SVG vs Other formats

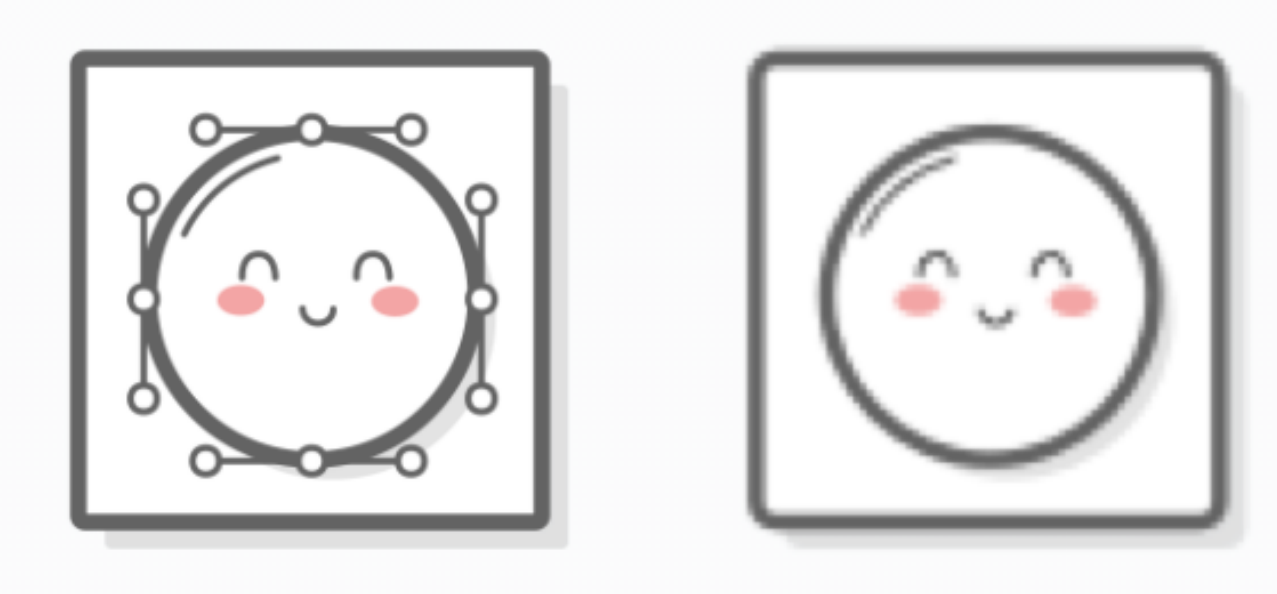


Image Dimensions

By default, the <img/> element uses the inherit dimensions of its image file. Our JPG, GIF, and PNG images are actually 150×150 pixels, while our SVG mochi is only 75×75 pixels.

- The width attribute sets an explicit dimension for the image.
- There's a corresponding height attribute, as well. Setting only one of them will cause the image to scale proportionally,
- Defining both will stretch the image.
- Dimension values are specified in pixels, and you should never include a unit (e.g., width='75px' would be incorrect).

```
<!-- In JPGs section -->
<img src='images/mochi.jpg' width='75'/>

<!-- In GIFs section -->
<img src='images/mochi.gif' width='75'/>

<!-- In PNGs section -->
<img src='images/mochi.png' width='75'/>
```

Text Alternatives

Adding alt attributes to your <img/> elements is a best practice.

- It defines a “text alternative” to the image being displayed.
- This has an impact on both search engines and users with text-only browsers (e.g., people that use text-to-speech software due to a vision impairment).

```
<!-- In JPGs section -->
<img src='images/mochi.jpg' width='75' alt='A mochi ball in a bubble'/>

<!-- In GIFs section -->
<img src='images/mochi.gif' width='75' alt='A dancing mochi ball'/>

<!-- In PNGs section -->
<img src='images/mochi.png' width='75' alt='A mochi ball'/>

<!-- In SVGs section -->
<img src='images/mochi.svg' alt='A mochi ball with Bézier handles'/>
```

More HTML Attributes

1. Document Language

<html lang='en'>

2. Character Set

<meta charset='UTF-8'/>

3. HTML Entities

- Reserved Characters

The <, >, and & characters are called “reserved characters” because they aren’t allowed to be inserted into an HTML document without being encoded. They are written as:

`< > &`

- Quotes

There’s four different kinds of curly quotes (opening and closing single and double quotes).

`&ldquo;  &rdquo;  &lsquo;  &rsquo;`

Final HTML Template

```
<!DOCTYPE html>
<html lang='en'>
  <head>
    <meta charset='UTF-8'/>
    <title>Some Web Page</title>
  </head>
  <body>
    <h1>Some Web Page</h1>
    <!-- Rest of the page content -->
  </body>
</html>
```