

# Web Technologies 1

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## Lists, Tables and links

Lec4

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# Lists

- HTML lists allow web developers to **group a set of related items in lists.**
- Types of lists :
  - Unordered list
  - Ordered list
  - Discription list

# Unordered HTML List

- An **unordered list** starts with the <ul> tag. Each list item starts with the <li> tag.

```
<ul>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ul>
```

## An unordered HTML list

- Coffee
- Tea
- Milk

# Ordered HTML List

- An **ordered list** starts with the `<ol>` tag. Each list item starts with the `<li>` tag.

```
<ol>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>
```

**An ordered HTML list**

1. Coffee
2. Tea
3. Milk

# Ordered HTML List attributes

- **reversed**

- Reverse all elements

```
<ol reversed >  
<li>Coffee</li>  
<li>Tea</li>  
<li>Milk</li>  
</ol>
```

3. Coffee  
2. Tea  
1. Milk

- **Start**

```
<ol start="10" >  
<li>Coffee</li>  
<li>Tea</li>  
</ol>
```

10. Coffee  
11. Tea  
12. Milk

# Ordered HTML List attributes

- Type

```
<ol type="A" >  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>
```

A. Coffee  
B. Tea  
C. Milk

# HTML Description Lists

- A **description list** is a list of terms, with a description of each term.
- The **<dl>** tag defines the description list, the **<dt>** tag defines the term (name), and the **<dd>** tag describes each term

```
<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>
```

## A Description List

```
Coffee
    - black hot drink
Milk
    - white cold drink
```

# **TABLES**



# Simply table formatting

With css

**Total Sales by Book**

Book	Year Published	Sales
PHP and MySQL	2014	\$372,381
JavaScript and jQuery	2015	\$305,447
Java Programming	2011	\$392,444
Java Servlets and JSP	2014	\$328,992
<b>Total Sales</b>		<b>\$2,154,786</b>

Without css

Book	Year Published	Sales
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Java Servlets and JSP	2014	\$328,992
<b>Total Sales</b>		<b>\$2,154,786</b>

# Common elements for coding tables

- The `< table >` Element Creates a Table
- The `<table>` element is a powerful tool for web designers:
  - Tables allow us to **display information in a predictable and uniform fashion** on a web page.
  - Tables are well suited for presenting **data that conforms to rows and columns.**
  - Content in table cells is **easy** to format consistently.

In the past, tables were often used to lay out and organize an entire web page. This was a misuse of the `<table>` element

# Building an HTML Table

**<table>**

<tr>

<td></td>

<td></td>

</tr>

<tr>

<td></td>

<td></td>

</tr>

<tr>

<td></td>

<td></td>

</tr>

**</table>**

<table> </table>

Establishes the table on the web page.

<tr> </tr>

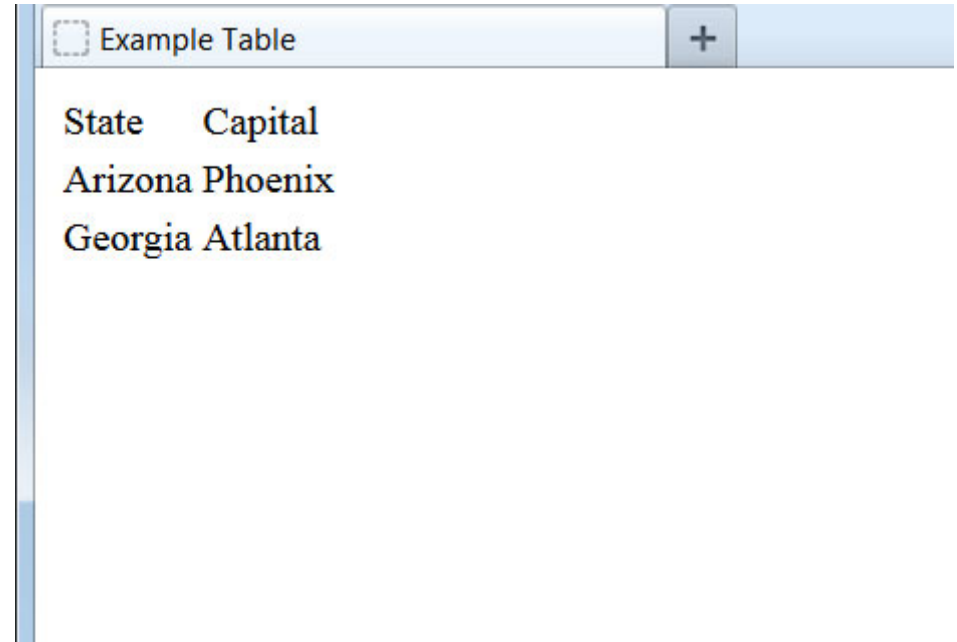
Defines a new table row, which spans the available width of the table.

<td> </td> Defines a cell of table data within a row. The <td> cells will evenly share the horizontal space in a row. If there is just one <td> element in a row

If we loaded this in a browser, nothing would show on the page, as we have only created the structure of the table but haven't yet populated the table with any data.

# Adding Table Data

```
<table>  
  <tr>  
    <td>State</td>  
    <td>Capital</td>  
  </tr>  
  <tr>  
    <td>Arizona</td>  
    <td>Phoenix</td>  
  </tr>  
  <tr>  
    <td>Georgia</td>  
    <td>Atlanta</td>  
  </tr>  
</table>
```



State	Capital
Arizona	Phoenix
Georgia	Atlanta

Many other elements can be placed inside table cells, including paragraphs, links, images, lists, and even other tables.

# Table Styling

- Table Headers
  - Sometimes you want your cells to be table header cells. In those cases use the `<th>` tag instead of the `<td>` tag
  - th stands for table header
  - By default, the text in `<th>` elements are bold and centered

```
<table>  
<tr>  
  <th>Person 1</th>  
  <th>Person 2</th>  
  <th>Person 3</th>  
</tr>
```

Person 1	Person 2	Person 3
Emil	Tobias	Linus
16	14	10

# Table Styling

- Border
  - To do a border to the table
  - `<table border = "1">`
- Cellpadding
  - Space between cells
  - `<table Cellpadding="1">`

# Spanning Rows and Columns

- So far, our tables have been relatively simple, with a uniform grid of **rows** and **columns**.
- To create more complex table elements by spanning multiple rows or columns, like this:

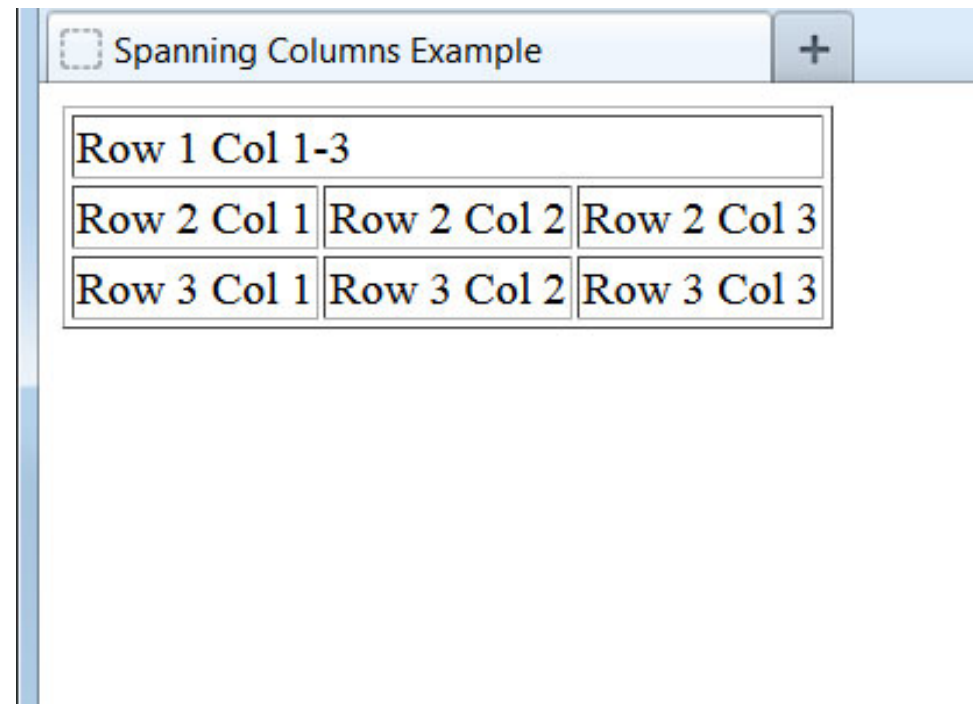


# Spanning Rows and Columns

- We can build a data cell that spans more than one column by using the **colspan** attribute
- we can build a data cell that spans more than one row by using the **rowspan** attribute



```
<table border="1">
  <tr>
    <td colspan="3">Row 1 Col 1-3</td>
  </tr>
  <tr>
    <td>Row 2 Col 1</td>
    <td>Row 2 Col 2</td>
    <td>Row 2 Col 3</td>
  </tr>
  <tr>
    <td>Row 3 Col 1</td>
    <td>Row 3 Col 2</td>
    <td>Row 3 Col 3</td>
  </tr>
</table>
```



The screenshot shows a browser window titled "Spanning Columns Example". The window displays a table with three rows. The first row contains a single cell that spans all three columns, labeled "Row 1 Col 1-3". The second and third rows each contain three separate cells, labeled "Row 2 Col 1", "Row 2 Col 2", "Row 2 Col 3" and "Row 3 Col 1", "Row 3 Col 2", "Row 3 Col 3" respectively.

Row 1 Col 1-3		
Row 2 Col 1	Row 2 Col 2	Row 2 Col 3
Row 3 Col 1	Row 3 Col 2	Row 3 Col 3

```

<table border="1">
  <tr>
    <td rowspan="3">Col 1 Row 1-3</td>
    <td>Row 1 Col 2</td>
    <td>Row 1 Col 3</td>
  </tr>
  <tr>
    <td>Row 2 Col 2</td>
    <td>Row 2 Col 3</td>
  </tr>
  <tr>
    <td>Row 3 Col 2</td>
    <td>Row 3 Col 3</td>
  </tr>
</table>

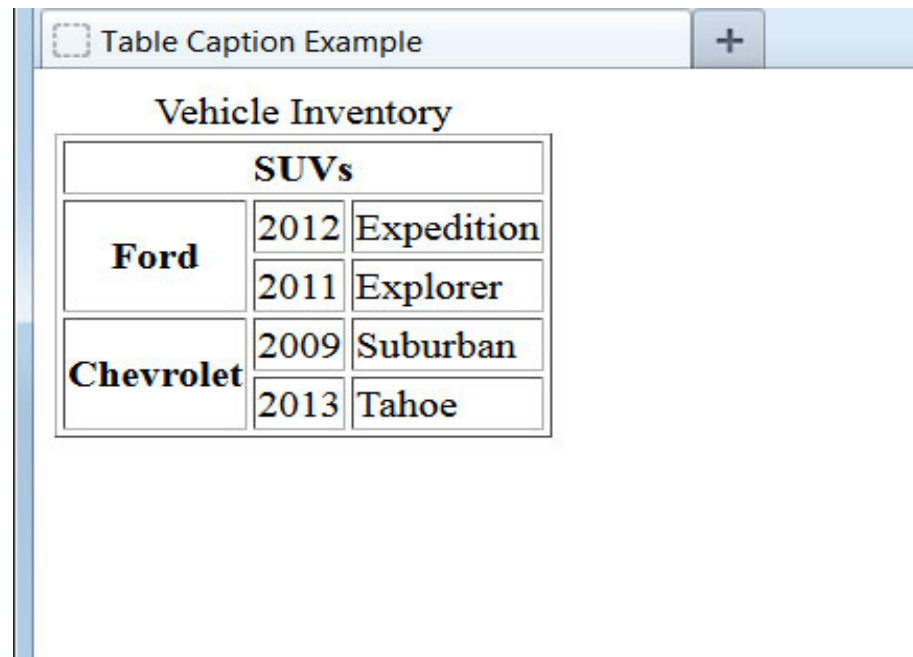
```

The screenshot shows a browser window with the title "Spanning Rows Example". Inside the window is a table with a border. The first cell of the first row is empty, and the text "Col 1 Row 1-3" is positioned to its right, indicating it spans the first three rows. The rest of the table is as follows:

	Row 1 Col 2	Row 1 Col 3
Col 1 Row 1-3	Row 2 Col 2	Row 2 Col 3
	Row 3 Col 2	Row 3 Col 3

# Adding a Table Caption

```
<table border="1">  
  <caption>Vehicle Inventory</caption>  
  <tr>  
    <th colspan="3">SUVs</th>  
  </tr>  
  <tr>  
    <th rowspan="2">Ford</th><td>2012</td>  
    <td>Expedition</td>  
  </tr>  
  <tr>  
    <td>2011</td>  
    <td>Explorer</td>  
  </tr>  
</table>
```



The screenshot shows a browser window titled "Table Caption Example" with a plus sign in the top right corner. The page content displays a table with a caption "Vehicle Inventory". The table has a header row with a single cell containing "SUVs" (colspan=3). The body of the table consists of four rows. The first row has a cell with "Ford" (rowspan=2), a cell with "2012", and a cell with "Expedition". The second row has a cell with "2011" and a cell with "Explorer". The third row has a cell with "Chevrolet", a cell with "2009", and a cell with "Suburban". The fourth row has a cell with "2013" and a cell with "Tahoe".

SUVs		
Ford	2012	Expedition
	2011	Explorer
Chevrolet	2009	Suburban
	2013	Tahoe

# LINKS AND NAVIGATION

# Links and Navigation

- What really distinguishes the Web from other mediums is the way in which a web page can contain **links** (or **hyperlinks**) that you can click on to be taken from one page to another page.
- The link can be **a word, phrase, or image**.
- When you link to another page in your **own web site**, the link is known as an **internal link** .  
When you link to a **different site**, it is known as an **external link** .

# Links and Navigation

- A link is specified using the `< a >` element. Anything between the opening `< a >` tag and the closing `< /a >` tag becomes part of the link that users can click in a browser.
- HTML links are **hyperlinks**.
- You can click on a link and jump to another document.
- Syntax :
  - `<a href="url">link text</a>`

# Links and Navigation

- By default, links will appear as follows in all browsers:
  - An **unvisited** link is underlined and blue
  - A **visited** link is underlined and purple
  - An **active** link is underlined and red

# The <a> Element

- The <a> element ("anchor") is used to create a clickable link to another location. There are four varieties of links:
  1. **External link** – to a web page outside our own website.
  2. **Internal link** – to another web page on our own website.
  3. **Bookmark link** – to a specific position within the current web page.
  4. **Email link** - to automatically start a new email message.



# Example

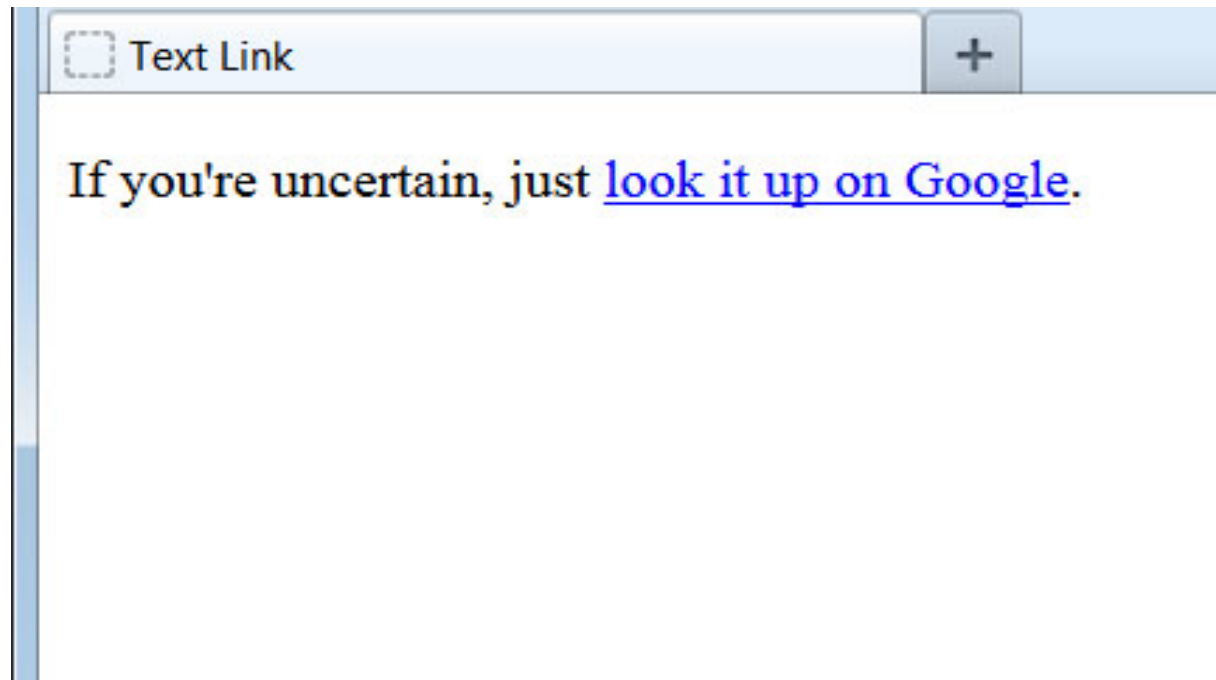
```
body>
```

```
<p>If you're uncertain, just
```

```
<a href="http://www.google.com" target="
_blank">look it up on Google</a>.
```

```
</p>
```

```
</body>
```



# External link

- HyperText reference (**href**)
- External link
  - `<a href="https://google.com" >Google </a>`

The href attribute ("hypertext reference") instructs the browser which page to load if the link is clicked.

# Absolute and Relative URLs

- An **absolute URL** contains everything you need to uniquely identify a particular file on the Internet. This is what you would type into the address bar of your browser in order to find a page.
  - **http://**www.example.com/Entertainment/Film/index.html
- we must use the full URL ("Uniform Resource Locator") address, including the initial "http://".
- As you can see, absolute URLs can quickly get quite long, and every page of a web site can contain many links. When linking to a page on your own site, however, you can use a shorthand form: **relative URLs**.

# Internal link

- The web server will assume that this file is located in the same folder as the current page. If the linked page were located somewhere else, we would need to include a path to that location.
  - `<a href="page2.html">Go to Page 2</a>`

**Internal links** like these are how we build a navigation **menu** to allow our visitors to move from page to page on our site.

# Absolute and Relative URLs

- A **relative URL** indicates where the resource is in relation to the current page. You can also use relative URLs to specify files in different directories. For example, imagine you are looking at the homepage for the entertainment section of the following fictional news site:
  - `www.exampleNewsSite.com/Entertainment/index.html`

# Bookmark link

- **Bookmark link**

- A bookmark link is a link to another location within the existing web page.
- `<a href="#contact_us" > Contact Us </a>`

```
<a href="#end">Click here to go to the conclusion.</a>
```

```
.
```

```
.
```

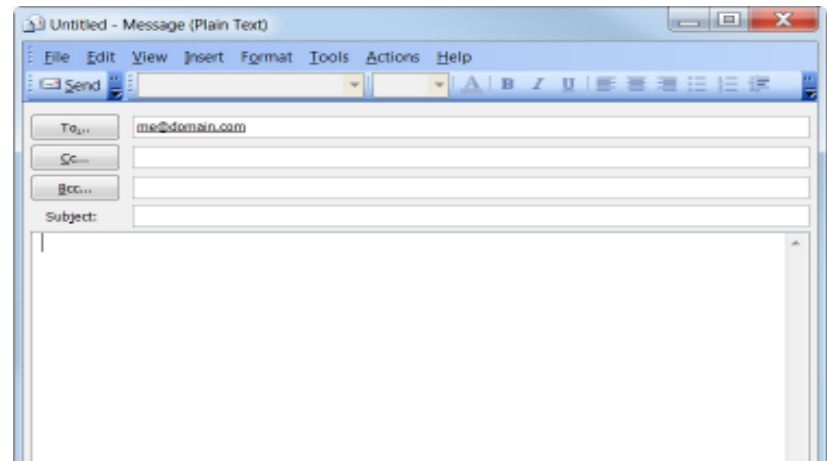
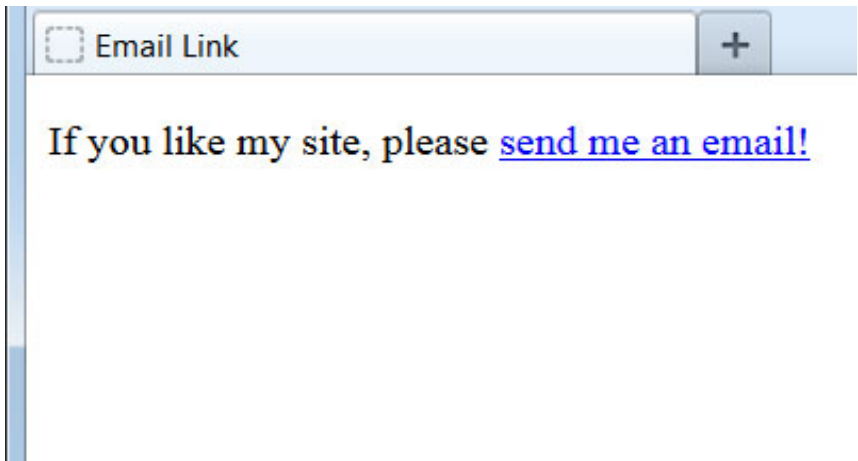
```
.
```

```
<a id="end">Conclusion</a>
```

# Email link

- To create a link that automatically starts a new email message, we use **mailto:** in the href attribute instead of a web page address:

```
body>  
<p>If you like my site, please  
  <a href="mailto:me@domain.com">send me an email!  
</a>  
</p>  
</body>
```



# Links attributes

- **Title**

- The value of the title attribute should be a description of what the link will take you to, which will be displayed in a tooltip when you hover over the link.
- `<a href="https://google.com" target="_blank" title="Search the Web with Google" >Google </a>`

- **Target**

- The target attribute is optional and controls how the linked page will be displayed in the browser. If omitted, the new page will load in the existing browser window. If target="\_blank" is specified, the linked page will open up and display in a new browser tab or window.
- `_blank`
- `Self`
- `<a href="https://google.com" target="_blank" >Google </a>`



# Accessible guidelines for links

- If the text to to the links has to be short, code the **title** attribute to clarify where the link is going.
- You also should code the **title** attribute if a link includes an image no text.

# Image

- The HTML `<img>` tag is used to embed an image in a web page.
- Syntax :
  - ``
- Images are not technically inserted into a web page; images are linked to web pages. The `<img>` tag creates a holding space for the referenced image.
- The `<img>` tag has two required attributes:
  - `src` - Specifies the path to the image
  - `alt` - Specifies an alternate text for the image

It's a good habit to name all image files with lowercase letters and to use underscores or dashes instead of spaces.

# Image

- The **src** Attribute
  - The src attribute tells the browser where to find the image. The value is a URL and, just like the links you met in the last chapter, the URL can be an absolute URL or a relative URL.
  - `< img src="logo.gif" / >`
- The **alt** Attribute
  - The alt attribute must appear on every `< img >` element and its value should be a text description of the image.
  - `< img src="logo.gif" alt="Your logo" / >`

# Image

- The **height** and **width** Attributes
  - The height and width attributes specify the height and width of the image, and the values for these attributes are almost always shown in pixels.
  - ``
- The **align** Attribute
  - The align attribute was created to align an image within the page (or if the image is inside an element that is smaller than the full page, it aligns the image within that element).
  - ``

# Image

We can also make a smaller image appear larger on the page, but this isn't recommended, as the image will look pixelated and of poor quality.

# Images as Links

- Earlier we learned how to create a text link. Turning an image into a link is straightforward:
  - `<a href="double-rainbow.html">  </a>`
- By moving the mouse over the image, we see that the **pointer changes**. The image is now a live link and if **clicked, the user will go to the page indicated**.
- This technique could be used, for example, to create a **web photo album**, where the user could browse a large number of thumbnail photos and then click on any individual thumbnail to **see a page with the full-size image**.

# Image Formats

- Images on the web generally come in **three common formats**. The JPG format is by far the most common, especially for photos:

Image Extension:	.jpg	.png	.gif
Best suited for:	Photographs	Logos, Icons	Icons, Animations
Color support:	Excellent	Excellent	Limited
Supports transparency*:	✘	✓	✓
Supports animation:	✘	✘	✓

# HTML FILE PATHS



# HTML File Paths

- A **file path** describes the **location of a file** in a web site's folder structure.
- File paths are used when linking to external files, like:
  - **Web pages**
  - **Images**
  - **Style sheets**
  - **JavaScripts**

# HTML File Paths

- ``
  - The "picture.jpg" file is located in the same folder as the current page
- ``
  - The "picture.jpg" file is located in the images folder in the current folder
- ``
  - The "picture.jpg" file is located in the images folder at the root of the current web
- ``
  - The "picture.jpg" file is located in the folder one level up from the current folder

# HTML5 and browsers support

The screenshot shows a web browser window with two tabs: "How HTML5 is your brow..." and "HTML5test - How well do...". The address bar shows "html5test.com". The page header includes the "HTML5 TEST" logo and the text "how well does your browser support html5?". Navigation buttons include "your browser", "other browsers", "compare", "news", "device lab", and "about the test". The main content area displays "YOUR BROWSER SCORES 508 OUT OF 555 POINTS". A sidebar on the right features a green box for "Free HTML5 Templates" with a red arrow pointing down and the text "PSD files included". Below the score, it says "You are using Chrome 39 on Windows 7" with a "Correct?" checkbox. The footer contains four buttons: "Save results", "Compare to...", "Share", and "Donate".

**Any Questions?**