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HTML Styles - CSS

CSS stands for Cascading Style Sheets.

CSS saves a lot of work. It can control the layout of multiple web pages all at once.

What is CSS?

- Cascading Style Sheets (CSS) is used to format the layout of a webpage.
- With CSS, you can control the color, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background images or background colors are to be used, different displays for different devices and screen sizes, and much more!
- **Tip:** The word cascading means that a style applied to a parent element will also apply to all children elements within the parent. So, if you set the color of the body text to "blue", all headings, paragraphs, and other text elements within the body will also get the same color (unless you specify something else)!



USING CSS

CSS can be added to HTML documents in 3 ways:

- Inline by using the style attribute inside HTML elements
- Internal by using a <style> element in the <head> section
- External by using a link> element to link to an external CSS file

The most common way to add CSS, is to keep the styles in external CSS files. However, we will use inline and internal styles, because this is easier to demonstrate, and easier for you to try it yourself.



INLINE CSS

An inline CSS is used to apply a unique style to a single HTML element.

An inline CSS uses the style attribute of an HTML element.

The following example sets the text color of the <h1> element to blue, and the text color of the element to red:

```
• <h1 style="color:blue;">A Blue Heading</h1>
```

```
A red paragraph.
```



INTERNAL CSS

- An internal CSS is used to define a style for a single HTML page.
- An internal CSS is defined in the <head> section of an HTML page, within a <style> element.
- The following example sets the text color of ALL the <h1> elements
 (on that page) to blue, and the text color of ALL the elements to
 red. In addition, the page will be displayed with a "powderblue"
 background color:



INTERNAL CSS

```
<!DOCTYPE html>
<html>
<head>
<style>
body {background-color: powderblue;}
h1 {color: blue;}
    {color: red;}
</style>
</head>
<body>
<h1>This is a heading</h1>
This is a paragraph.
</body>
</html>
```



EXTERNAL CSS

- An external style sheet is used to define the style for many HTML pages.
- To use an external style sheet, add a link to it in the <head> section of each HTML page:



EXTERNAL CSS

- The external style sheet can be written in any text editor. The file must not contain any HTML code, and must be saved with a .css extension.
- Here is what the "styles.css" file looks like:

```
• body {
    background-color: powderblue;
}
h1 {
    color: blue;
}
p {
    color: red;
}
```

 Tip: With an external style sheet, you can change the look of an entire web site, by changing one file!



CSS Colors, Fonts and Sizes

Here, we will demonstrate some commonly used CSS properties. You will learn more about them later.

- The CSS color property defines the text color to be used.
- The CSS font-family property defines the font to be used.
- The CSS font-size property defines the text size to be used.

CSS Colors, Fonts and Sizes

Example

Use of CSS color, font-family and font-size properties:

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
 color: blue;
 font-family: verdana;
 font-size: 300%;
 color: red;
 font-family: courier;
 font-size: 160%;
</style>
</head>
<body>
<h1>This is a heading</h1>
This is a paragraph.
</body>
</html>
```



CSS Border and Padding

The CSS border property defines a border around an HTML element.

Tip: You can define a border for nearly all HTML elements.

Example

```
Use of CSS border property:
    p {
    border: 2px solid powderblue;
```

CSS Padding

The CSS padding property defines a padding (space) between the text and the border.

Example

Use of CSS border and padding properties:

```
• p {
   border: 2px solid powderblue;
   padding: 30px;
```



CSS Margin

The CSS margin property defines a margin (space) outside the border.

Example

Use of CSS border and margin properties:

```
• p {
    border: 2px solid powderblue;
    margin: 50px;
}
```



LINK TO EXTERNAL CSS

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

Example

- This example uses a full URL to link to a style sheet:
- css">

 css">

Example

- This example links to a style sheet located in the html folder on the current web site:
- <link rel="stylesheet" href="/html/styles.css">

- This example links to a style sheet located in the same folder as the current page:
- rel="stylesheet" href="styles.css">



Use the HTML style attribute for inline styling

Use the HTML <style> element to define internal CSS

Use the HTML < link> element to refer to an external CSS file

Use the HTML <head> element to store <style> and <link> elements

Use the CSS color property for text colors

Use the CSS font-family property for text fonts

Use the CSS font-size property for text sizes

Use the CSS border property for borders

Use the CSS padding property for space inside the border

Use the CSS margin property for space outside the border

HTML Links

- Links are found in nearly all web pages. Links allow users to click their way from page to page.
- HTML Links 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. A link can be an image or any other HTML element!



HTML Links - Syntax

The HTML <a> tag defines a hyperlink. It has the following syntax:

```
<a href="url">link text</a>
```

- The most important attribute of the <a> element is the href attribute, which indicates the link's destination.
- The link text is the part that will be visible to the reader.

Example

- This example shows how to create a link to W3Schools.com:
- KsTU!

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

Tip: Links can of course be styled with CSS, to get another look!



HTML Links - The target Attribute

- By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.
- The target attribute specifies where to open the linked document.
- The target attribute can have one of the following values:
 - self Default. Opens the document in the same window/tab as it was clicked
 - _blank Opens the document in a new window or tab
 - _parent Opens the document in the parent frame
 - _top Opens the document in the full body of the window

- Use target="_blank" to open the linked document in a new browser window or tab:
- Visit KsTU!

Absolute URLs vs. Relative URLs

Both examples above are using an absolute URL (a full web address) in the href attribute.

A local link (a link to a page within the same website) is specified with a **relative URL** (without the "https://www" part):

HTML Links - Use an Image as a Link

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

Example

Link to an Email Address

Use mailto: inside the href attribute to create a link that opens the user's email program (to let them send a new email):

```
•<a href="mailto:someone@example.com">Send email</a>
```

HTML Links - Use Button as a Link

Button as a Link

- To use an HTML button as a link, you have to add some JavaScript code.
- · JavaScript allows you to specify what happens at certain events, such as a click of a button:

Example

- <button onclick="document.location='default.asp'">HTML Tutorial</button>
- Tip: Learn more about JavaScript in our JavaScript Tutorial.

Link Titles

The title attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.

Example

• Visit KsTU

Link Titles

- The title attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.
- Example
- Visit our student portal

More on Absolute URLs and Relative URLs

Example

- Use a full URL to link to a web page:
- HTML tutorial

- Link to a page located in the html folder on the current web site:
- HTML tutorial
- Example
- Link to a page located in the same folder as the current page:

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 element (inside <a>) to use an image as a link
- Use the mailto: scheme inside the href attribute to create a link that opens the user's email program



HTML LINKS -DIFFERENT COLORS

An HTML link is displayed in a different color depending on whether it has been visited, is unvisited, or is active.

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 link state colors, by using CSS:



Example

Here, an unvisited link will be green with no underline. A visited link will be pink with no underline. An active link will be yellow and underlined. In addition, when mousing over a link (a:hover) it will become red and underlined:

```
<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 Links - Create Bookmarks

- HTML links can be used to create bookmarks, so that readers can jump to specific parts of a web page.
- Create a Bookmark in HTML
- Bookmarks can be useful if a web page is very long.
- To create a bookmark first create the bookmark, then add a link to it.
- · When the link is clicked, the page will scroll down or up to the location with the bookmark.
- Example
- First, use the id attribute to create a bookmark:
- <h2 id="C4">Chapter 4</h2>
- Then, add a link to the bookmark ("Jump to Chapter 4"), from within the same page:
- Example
- Jump to Chapter 4
- You can also add a link to a bookmark on another page
- Jump to Chapter 4



Use the id attribute (id="value") to define bookmarks in a page
Use the href attribute (href="#value") to link to the bookmark

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

HTML Images Syntax

- The HTML tag is used to embed an image in a web page.
- Images are not technically inserted into a web page; images are linked to web pages. The tag creates a holding space for the referenced image.
- The tag is empty, it contains attributes only, and does not have a closing tag.
- The tag has two required attributes:
- src Specifies the path to the image
- alt Specifies an alternate text for the image

```
    Example

• <!DOCTYPE html>
· <html>
<head>
<style>
img {
width: 100%;
. </style>
· </head>
• <body>
• <img src="html5.gif" alt="HTML5 Icon" width="128" height="128">
- <img src="html5.gif" alt="HTML5 Icon" style="width:128px;height:128px;">
</body>
</html>
```

Images in Another Folder

- If you have your images in a sub-folder, you must include the folder name in the src attribute:
- Example
-

Images on Another Server/Website

- Some web sites point to an image on another server.
- To point to an image on another server, you must specify an absolute (full) URL in the src attribute:
- Example

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

- Image as a Link
- To use an image as a link, put the tag inside the <a> tag:
- Example

Image Floating

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

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

 To add a background image on an HTML element, use the HTML style attribute and the CSS background-image property:

Example

- Add a background image on a HTML element:
- ' img_girl is the name of your image.
- You can also specify the background image in the <style> element, in the <head> section:
- Example

</style>

- Specify the background image in the <style> element:
- <style>p {background-image: url('img_girl.jpg');}

- Background Image on a Page
- If you want the entire page to have a background image, you must specify the background image on the <body> element:
- Example
- Add a background image for the entire page:

```
* <style>
body {
   background-image: url('img_girl.jpg');
}
</style>
```

- Background Repeat
- If the background image is smaller than the element, the image will repeat itself, horizontally and vertically, until it reaches the end of the element: To avoid the background image from repeating itself, set the background-repeat property to no-repeat.
- Example

```
' <style>
body {
    background-image: url('example_img_girl.jpg');

background-repeat: no-repeat;
}
</style>
```

- Background Cover
- If you want the background image to cover the entire element, you can set the background-size property to cover.
- Also, to make sure the entire element is always covered, set the backgroundattachment property to fixed:
- This way, the background image will cover the entire element, with no stretching (the image will keep its original proportions):

Background Stretch

- If you want the background image to stretch to fit the entire element, you can set the background-size property to 100% 100%:
- Try resizing the browser window, and you will see that the image will stretch, but always cover the entire element.

- Learn More CSS
- From the examples above you have learned that background images can be styled by using the CSS background properties.

HTML <picture> Element

- The HTML <picture> element allows you to display different pictures for different devices or screen sizes.
- The HTML <picture> Element
- The HTML <picture> element gives web developers more flexibility in specifying image resources.
- The <picture> element contains one or more <source> elements, each referring to different images through the srcset attribute. This way the browser can choose the image that best fits the current view and/or device.
- Each <source> element has a media attribute that defines when the image is the most suitable.

HTML <picture> Element

- Example
- Show different images for different screen sizes:

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

HTML Image Tags

Tag	Description
	Defines an image
<map></map>	Defines an image map
<area/>	Defines a clickable area inside an image map
<picture></picture>	Defines a container for multiple image resources

HTML <picture> Element

- When to use the Picture Element
- There are two main purposes for the <picture> element:
- 1. Bandwidth
- If you have a small screen or device, it is not necessary to load a large image file. The browser will use the first <source> element with matching attribute values, and ignore any of the following elements.
- · 2. Format Support
- Some browsers or devices may not support all image formats. By using the <picture> element, you can add images of all formats, and the browser will use the first format it recognizes, and ignore any of the following elements.

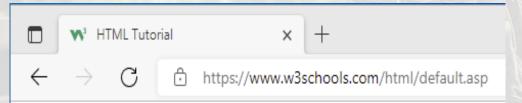
Example

The browser will use the first image format it recognizes:

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

HTML Favicon

- A favicon is a small image displayed next to the page title in the browser tab.
- How To Add a Favicon in HTML
- You can use any image you like as your favicon. You can also create your own favicon on sites like https://www.favicon.cc.
- **Tip:** A favicon is a small image, so it should be a simple image with high contrast.
- · A favicon image is displayed to the left of the page title in the browser tab, like this:



- Example of favicon
- To add a favicon to your website, either save your favicon image to the root directory of your webserver, or create a folder in the root directory called images, and save your favicon image in this folder. A common name for a favicon image is "favicon.ico".
- Next, add a <link> element to your "index.html" file, after the <title> element, like this: Example

HTML Favicon

- Favicon File Format Support
- The following table shows the file format support for a favicon image:

Browser	ICO	PNG	GIF	JPEG	SVG
Edge	Yes	Yes	Yes	Yes	Yes
Chrome	Yes	Yes	Yes	Yes	Yes
Firefox	Yes	Yes	Yes	Yes	Yes
Opera	Yes	Yes	Yes	Yes	Yes
Safari	Yes	Yes	Yes	Yes	Yes

- HTML Link Tag
- link> Defines the relationship between a document and an external resource

HTML Page Title

- Every web page should have a page title to describe the meaning of the page.
- The <title> element adds a title to your page:
- Example

• The title is shown in the browser's title bar.

HTML Page Title

- The title should describe the content and the meaning of the page.
- The page title is very important for search engine optimization (SEO). The text is used by search engine algorithms to decide the order when listing pages in search results.
- The <title> element:
- defines a title in the browser toolbar
- provides a title for the page when it is added to favorites
- · displays a title for the page in search engine-results
- So, try to make the title as accurate and meaningful as possible!

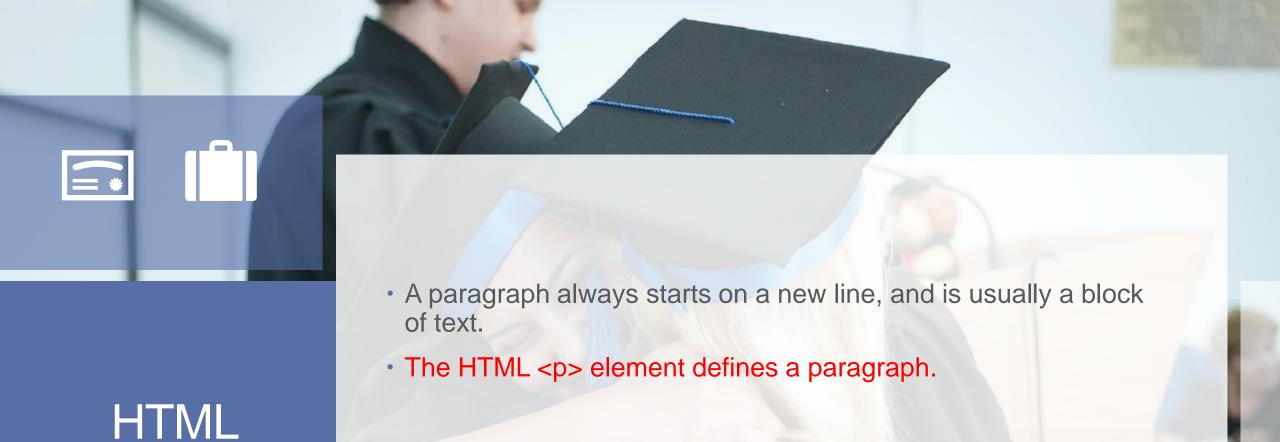
Headings Are Important

- Search engines use the headings to index the structure and content of your web pages.
- Users often skim a page by its headings. It is important to use headings to show the document structure.
- <h1> headings should be used for main headings, followed by <h2> headings, then the less important <h3>, and so on.

Note: Use HTML headings for headings only. Don't use headings to make text BIG or bold.



HTML HEADINGS

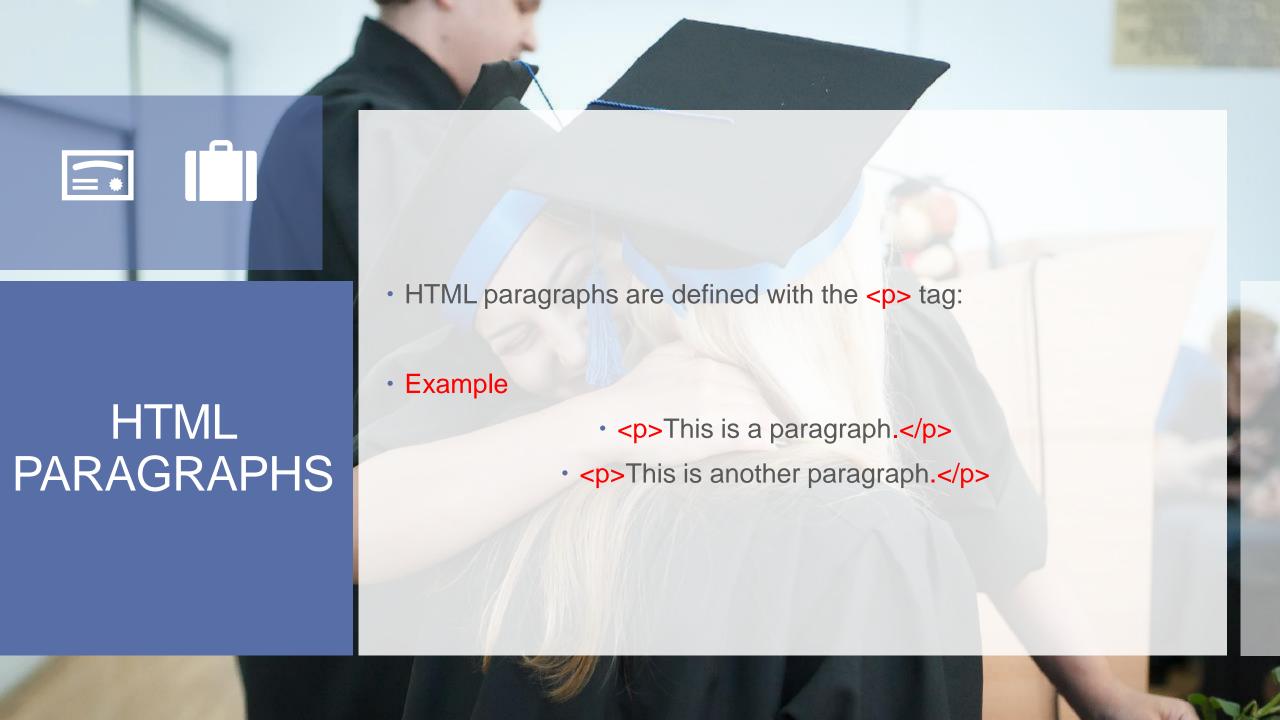


a paragraph.

PARAGRAPHS

A paragraph always starts on a new line, and browsers

automatically add some white space (a margin) before and after





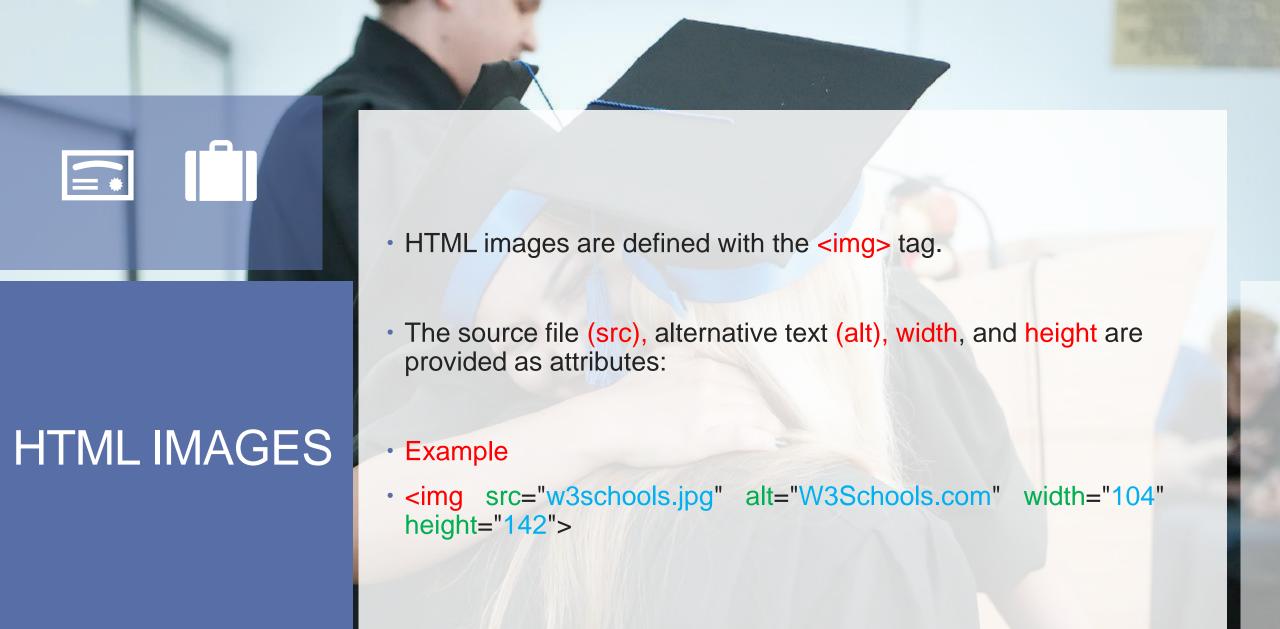
You cannot be sure how HTML will be displayed.

 Large or small screens, and resized windows will create different results.

HTML DISPLAY

 With HTML, you cannot change the display by adding extra spaces or extra lines in your HTML code.

 The browser will automatically remove any extra spaces and lines when the page is displayed.





HTML HORIZONTAL RULES

- The <hr> tag defines a thematic break in an HTML page and is most often displayed as a horizontal rule.
- The <hr> element is used to separate content (or define a change) in an HTML page:

```
<h1>This is heading 1</h1>This is some text.<hr>This is heading 2</h2>This is some other text.<hr>
```



The HTML element defines preformatted text.

• The text inside a element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks:

<

My Bonnie lies over the ocean.

My Bonnie lies over the sea.

HTML ELEMENT



The HTML style attribute is used to add styles to an element, such as color, font, size, and more.

Example

I am Red

I am Blue

I am Big

The HTML Style Attribute

Setting the style of an HTML element, can be done with the style attribute.

The HTML style attribute has the following syntax:

<tagname style="property:value;">

The *property* is a CSS property. The *value* is a CSS value.

You will learn more about CSS later.

HTML STYLES



Background Color

The CSS background-color property defines the background color for an HTML element.

Example

Set the background color for a page to powderblue:

<body style="background-color:powderblue;">

<h1>This is a heading</h1>

This is a paragraph.

</body>

Set background color for two different elements:

<h1 style="background-color:powderblue;">This is a heading</h1>

This is a paragraph.

HTML STYLES



HTML STYLES

Text Color

The CSS color property defines the text color for an HTML element:

Example

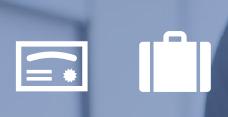
```
<h1 style="color:blue;">This is a heading</h1>
This is a paragraph.
```

Fonts

The CSS font-family property defines the font to be used for an HTML element:

Example

```
<h1 style="font-family:verdana;">This is a
heading</h1>
This is a
paragraph.
```



Text Alignment

The CSS text-align property defines the horizontal text alignment for an HTML element:

Example

```
HTML STYLES
```

```
<h1 style="text-align:center;">Centered
Heading</h1>
Centered
paragraph.
```

CHAPTER SUMMARY

- Use the style attribute for styling HTML elements
- Use background-color for background color
- Use color for text colors
- Use font-family for text fonts
- Use font-size for text sizes
- Use text-align for text alignment

HTML TEXT FORMATTING

HTML contains several elements for defining text with a special meaning.

Example

- This text is bold
- This text is italic
- This is subscript and superscript

HTML Formatting Elements

Formatting elements were designed to display special types of text:

- · Bold text
- Important text
- <i> Italic text
- Emphasized text
- <mark> Marked text
- <small> Smaller text
- · Deleted text
- · <ins> Inserted text
- <sub> Subscript text
- <sup> Superscript text

HTML and ELEMENTS

The HTML element defines bold text, without any extra importance.

Example

- This text is bold
- The HTML element defines text with strong importance. The content inside is typically displayed in bold.

Example

This text is important!

HTML <i> and Elements

- The HTML <i> element defines a part of text in an alternate voice or mood. The content inside is typically displayed in italic.
- Tip: The <i> tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

Example

- <i>This text is italic</i></i>
- The HTML element defines emphasized text. The content inside is typically displayed in italic.
- Tip: A screen reader will pronounce the words in with an emphasis, using verbal stress.
- Example
- This text is emphasized

HTML <small> Element

- The HTML <i> element defines a part of text in an alternate voice or mood. The content inside is typically displayed in italic.
- Tip: The <i> tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

Example

- <i>This text is italic</i></i>
- The HTML element defines emphasized text. The content inside is typically displayed in italic.
- Tip: A screen reader will pronounce the words in with an emphasis, using verbal stress.
- Example
- This text is emphasized

HTML <mark> Element

- The HTML <mark> element defines text that should be marked or highlighted:
- Example
- Do not forget to buy <mark>milk</mark> today.

HTML Element

The HTML element defines text that has been deleted from a document.
 Browsers will usually strike a line through deleted text:

Example

My favorite color is blue red.

HTML <ins> Element

HTML <ins> Element

The HTML <ins> element defines a text that has been inserted into a document.
 Browsers will usually underline inserted text:

Example

My favorite color is blue <ins>red</ins>.

HTML <sub> Element

The HTML <sub> element defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H₂O:

Example

This is _{subscripted} text.

HTML <sup> Element

• The HTML <sup> element defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like WWW^[1]:

Example

This is ^{superscripted} text.

HTML Text Formatting Elements

Tag	Description
<u></u>	Defines bold text
	Defines emphasized text
<u><i></i></u>	Defines a part of text in an alternate voice or mood
<small></small>	Defines smaller text
	Defines important text
	Defines subscripted text
	Defines superscripted text
<ins></ins>	Defines inserted text
	Defines deleted text
<mark></mark>	Defines marked/highlighted text

HTML Quotation and Citation Elements

In this chapter we will go through the <blockquote>,<q>, <abbr>, <address>, <cite>,
 and <bdo> HTML elements.

Example

Here is a quote from WWF's website:

<blookquote cite="http://www.worldwildlife.org/who/index.html">

For 60 years, WWF has worked to help people and nature thrive. As the world's leading conservation organization, WWF works in nearly 100 countries. At every level, we collaborate with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places in which they live.

</blockquote>

HTML <q> for Short Quotations

- The HTML <q> tag defines a short quotation.
- · Browsers normally insert quotation marks around the quotation.

Example

• WWF's goal is to: <q>Build a future where people live in harmony with nature.

HTML <abbr> for Abbreviations

- The HTML <abbr> tag defines an abbreviation or an acronym, like "HTML", "CSS", "Mr.", "Dr.", "ASAP", "ATM".
- Marking abbreviations can give useful information to browsers, translation systems and search-engines.
- Tip: Use the global title attribute to show the description for the abbreviation/acronym when you mouse over the element.

Example

The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.

HTML <address> for Contact Information

- The HTML <address> tag defines the contact information for the author/owner of a document or an article.
- The contact information can be an email address, URL, physical address, phone number, social media handle, etc.
- The text in the <address> element usually renders in italic, and browsers will always add a line break before and after the <address> element.

Example

<address>

Written by John Doe.

Visit us at:

Example.com

Box 564, Disneyland

USA

</address>

HTML <cite> for Work Title

- The HTML <cite> tag defines the title of a creative work (e.g. a book, a poem, a song, a movie, a painting, a sculpture, etc.).
- Note: A person's name is not the title of a work.
- The text in the <cite> element usually renders in italic.
- Example
- <cite>The Scream</cite> by Edvard Munch. Painted in 1893.

HTML Quotation and Citation Elements

Tag	Description
<abbr></abbr>	Defines an abbreviation or acronym
<address></address>	Defines contact information for the author/owner of a document
 bdo>	Defines the text direction
 	Defines a section that is quoted from another source
<cite></cite>	Defines the title of a work
< <u>q></u>	Defines a short inline quotation

HTML Comments

 HTML comments are not displayed in the browser, but they can help document your HTML source code.

HTML Comment Tag

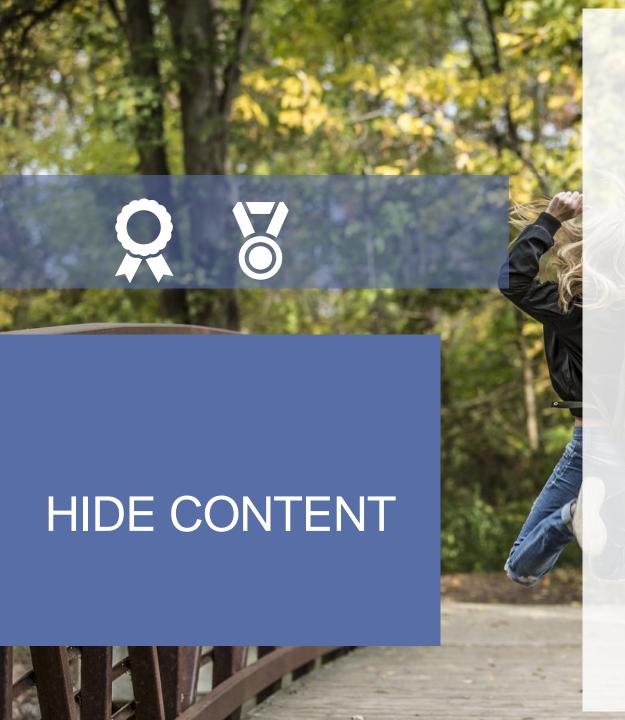
- You can add comments to your HTML source by using the following syntax:
- <!-- Write your comments here -->
- · Notice that there is an exclamation point (!) in the start tag, but not in the end tag.
- Note: Comments are not displayed by the browser, but they can help document your HTML source code.

Add Comments

With comments you can place notifications and reminders in your HTML code:

Example

```
<!-- This is a comment -->
This is a paragraph.
<!-- Remember to add more information here -->
```



Comments can be used to hide content.

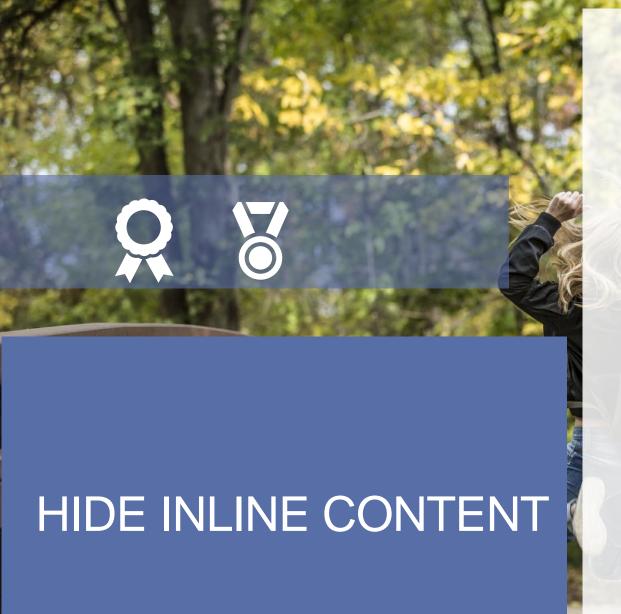
This can be helpful if you hide content temporarily:

Example

- · This is a paragraph.
 <!-- <p>This is another paragraph
 This is a paragraph too.
- You can also hide more than one line. Everything between the <!-- and the --> will be hidden from the display.

Example

- Hide a section of HTML code:
- This is a paragraph.
 <!- <p>Look at this cool image:
 <img border="0" src="pic_trulli.jpg"
 alt="Trulli">
 -->
 This is a paragraph too.
- Comments are also great for debugging HTML, because you can comment out HTML lines of code, one at a time, to search for errors.



Comments can be used to hide parts in the middle of the HTML code.

- Example
- Hide a part of a paragraph:
- This <!-- great text --> is a
 paragraph.

- HTML colors are specified with predefined color names, or with RGB, HEX, HSL, RGBA, or HSLA values.
- Color Names
- In HTML, a color can be specified by using a color name:
- HTML supports <u>140 standard colornames</u>.

https://www.w3schools.com/colors/colors_names.asp

- Background Color
- You can set the background color for HTML elements:
- Example
- * <h1 style="background-color:DodgerBlue;">Hello World</h1>
 Lorem ipsum...

- Text Color
- Example

- Border Color
- You can set the color of borders:
- Example

```
* <h1 style="border:2px solid Tomato;">Hello World</h1>
  <h1 style="border:2px solid DodgerBlue;">Hello World</h1>
  <h1 style="border:2px solid Violet;">Hello World</h1></h1></h1>
```

- Color Values
- In HTML, colors can also be specified using RGB values, HEX values, HSL values, RGBA values, and HSLA values.
- Example

```
* <h1 style="background-color:rgb(255, 99, 71);">...</h1>
    <h1 style="background-color:#ff6347;">...</h1>
    <h1 style="background-color:hsl(9, 100%, 64%);">...</h1>
    <h1 style="background-color:rgba(255, 99, 71, 0.5);">...</h1>
    <h1 style="background-color:hsla(9, 100%, 64%, 0.5);">...</h1></h1></h1>
```

- HTML RGB and RGBA Colors
- · An RGB color value represents RED, GREEN, and BLUE light sources.
- An RGBA color value is an extension of RGB with an Alpha channel (opacity).
- RGB Color Values
- In HTML, a color can be specified as an RGB value, using this formula:
- rgb(red, green, blue)
- Example
- · rgb(255, 0, 0) and rgb(0, 255, 0) i

- HTML RGB and RGBA Colors
- An RGB color value represents RED, GREEN, and BLUE light sources.
- An RGBA color value is an extension of RGB with an Alpha channel (opacity).
- RGB Color Values
- In HTML, a color can be specified as an RGB value, using this formula:
- rgb(red, green, blue)
- Example
- rgb(255, 0, 0) and rgb(0, 255, 0)

Shades of Gray

Shades of gray are often defined using equal values for all three parameters:

RGBA Color Values

- RGBA color values are an extension of RGB color values with an Alpha channel which specifies the opacity for a color.
- An RGBA color value is specified with:
- rgba(red, green, blue, alpha)
- The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (not transparent at all)

- HTML HEX Colors
- A hexadecimal color is specified with: #RRGGBB, where the RR (red), GG (green) and BB (blue) hexadecimal integers specify
 the components of the color.
- HEX Color Values
- In HTML, a color can be specified using a hexadecimal value in the form: #rrggbb
- Where rr (red), gg (green) and bb (blue) are hexadecimal values between 00 and ff (same as decimal 0-255).
- For example, #ff0000 is displayed as red, because red is set to its highest value (ff), and the other two (green and blue) are set to 00.
- Another example, #00ff00 is displayed as green, because green is set to its highest value (ff), and the other two (red and blue) are set to 00.
- To display black, set all color parameters to 00, like this: #000000.
- To display white, set all color parameters to ff, like this: #ffffff.

Shades of Gray

- · Shades of gray are often defined using equal values for all three parameters:
- · #404040
- · #686868
- #a0a0a0
- #bebebe
- #dcdcdc
- #f8f8f8

