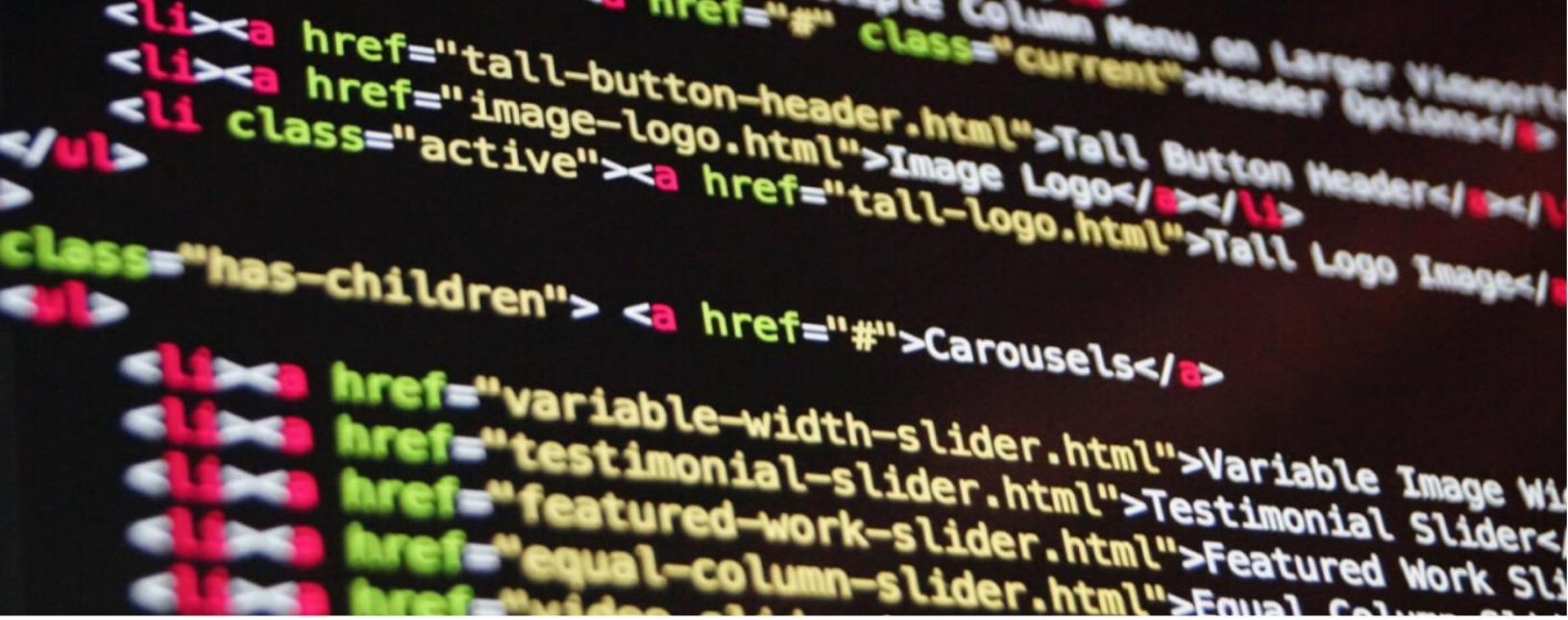


HTML

HyperText Markup Language

(Week 1)

TABLE OF CONTENTS

TABLE OF CONTENTS

HTML TEXT FORMATTING

HTML COMMENTS

INTRODUCTION

WHAT IS HTML?

HTML stands for Hypertext Markup Language.

- Hyper refers to creating linked and nonlinear structures of information
- Text refers to the words on the computer screen that we are marking up
- Markup is the process of preparing the text to define how it displays when viewed as pages on the WWW by marking them with formatting directions conveyed by notations called tags
- Language is a system of signs used for communication – written and oral

HTML stands for Hypertext Markup Language. It allows the user to create and structure sections, paragraphs, headings, links, and block quotes for web pages and applications.

HTML is not a programming language, meaning it doesn't have the ability to create dynamic functionality. Instead, it makes it possible to organize and format documents, similarly to Microsoft Word.

When working with HTML, we use simple code structures (tags and attributes) to mark up a website page.

BRIEF HISTORY OF HTML

HTML was invented by Tim Berners-Lee, a physicist at the CERN research institute in Switzerland. He came up with the idea of an Internet-based hypertext system.

Hypertext means a text that contains references (links) to other texts that viewers can access immediately. He published the first version of HTML in 1991, consisting of 18 HTML tags. Since then, each new version of the HTML language came with new tags and attributes (tag modifiers) to the markup.

According to Mozilla Developer Network's HTML Element Reference, currently, there are 140 HTML tags, although some of them are already obsolete (not supported by modern browsers).

Due to a quick rise in popularity, HTML is now considered an official web standard. The HTML specifications are maintained and developed by the World Wide Web Consortium (W3C). You can check out the latest state of the language anytime on W3C's website.

The biggest upgrade of the language was the introduction of HTML5 in 2014. It added several new semantic tags to the markup, that reveal the meaning of their own content, such as <article>, <header>, and <footer>.

DIFFERENCE BETWEEN HTML AND HTML5

HTML is referred to as the primary language of the World Wide Web. HTML has many updates over time, and the latest HTML version is HTML5.

Features	HTML	HTML5
Definition	A hypertext markup language (HTML) is the primary language for developing web pages.	HTML5 is a new version of HTML with new functionalities with markup language with Internet technologies.
Multimedia Support	Language in HTML does not have support for video and audio.	HTML5 supports both video and audio.
Storage	The HTML browser uses cache memory as temporary storage.	HTML5 has the storage options like: application cache, SQL database, and web storage.
Browser compatibility	HTML is compatible with almost all browsers because it has been present for a long time, and the browser made modifications to support all the features.	In HTML5, we have many new tags, elements, and some tags that have been removed/modified, so only some browsers are fully compatible with HTML5.
Graphics support	In HTML, vector graphics are possible with tools LikeSilver light, Adobe Flash, VML, etc.	In HTML5, vector graphics are supported by default.
Threading	In HTML, the browser interface and JavaScript running in the same thread.	The HTML5 has the JavaScript Web Worker API, which allows the browser interface to run in multiple threads.
Storage	Uses cookies to store data.	

		Uses local storage instead of cookies
Vector and Graphics	Vector graphics are possible with the help of technologies like VML, Silverlight, Flash, etc.	Vector graphics is an integral part of HTML5, SVG and canvas.
Shapes	It is not possible to create shapes like circles, rectangles, triangles.	We can draw shapes like circles, rectangles, triangles.
Doc type	Doctype declaration in html is too long <! DOCTYPE HTML PUBLIC "- // W3C // DTD HTML 4.01 // EN" "http://www.w3.org/TR/html4/strict.dtd ">	The DOCTYPE declaration in html5 is very simple "<! DOCTYPE html>
Character Encoding	Character encoding in HTML is too long. <! DOCTYPE HTML PUBLIC "- // W3C // DTD HTML 4.0 Transitional // EN">	Character encoding declaration is simple <meta charset = "UTF-8">

HTML EDITORS

HTML can be edited by using a professional HTML editor like:

1. Adobe Dreamweaver
2. Microsoft Expression Web
3. CoffeeCup HTML Editor

However, for learning HTML it is recommended to use a simple text editor like Notepad (PC) or TextEdit (Mac).

Follow the steps below to create your first web page with Notepad or TextEdit.

Step 1: Open text editor

Step1.1: Open Notepad (PC)

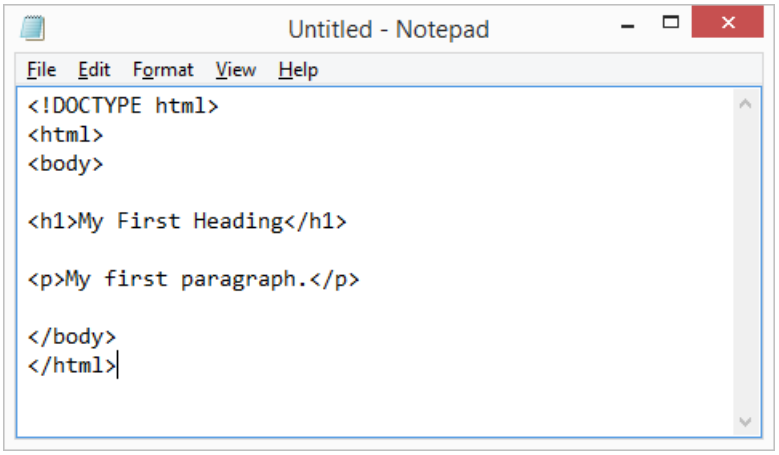
- Windows 8 or later
  Open the Start Screen (the window symbol at the bottom left on your screen). Type Notepad.
- Windows 7 or earlier
  Open Start > Programs > Accessories > Notepad

Step 1.2: Open TextEdit (Mac)

- Open Finder > Applications > TextEdit
  Also change some preferences to get the application to save files correctly. In Preferences > Format > choose "Plain Text." Then under "Open and Save", check the box that says "Display HTML files as HTML code instead of formatted text". Then open a new document to place the code

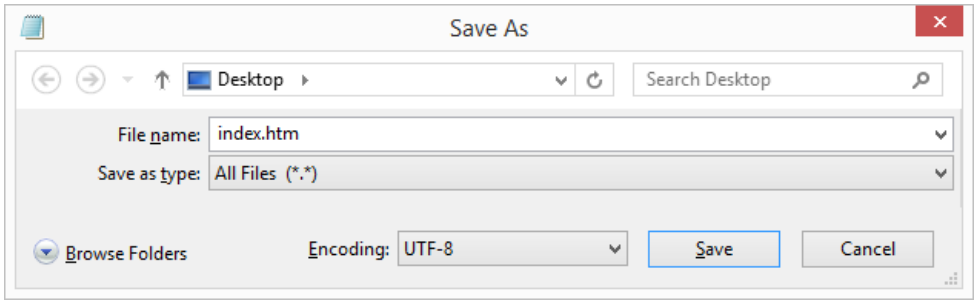
Step 2: Write Some HTML

Write or copy the following HTML code into Notepad:



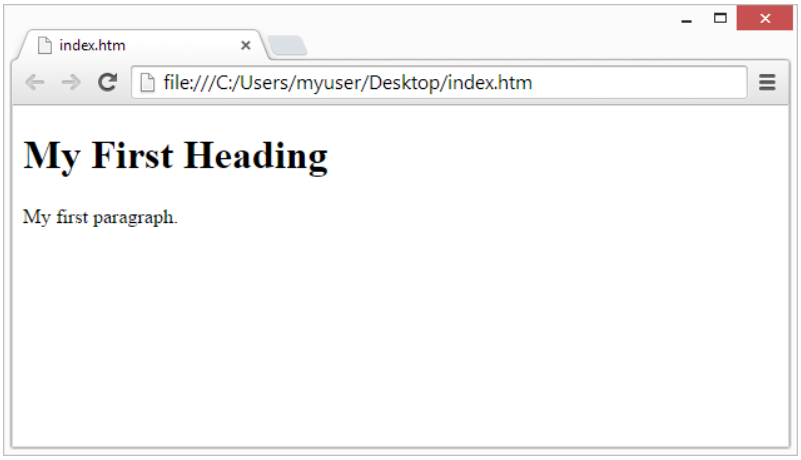
Step 3: Save the HTML Page
Save the file on your computer. Select File > Save as in the Notepad menu.

Name the file "index.htm" and set the encoding to UTF-8 (which is the preferred encoding for HTML files).



Step 4: View the HTML Page in your Browser
Open the saved HTML file in your favorite browser (double click on the file, or right-click - and choose "Open with").

The result will look much like this:



WEB PAGE DOCUMENT STRUCTURE

An HTML page has the following basic layout:

```
<!DOCTYPE html>
<html>
    <head>
        <!-- head definitions go here -->
    </head>
    <body>
        <!-- the content goes here -->
    </body>
</html>
```

All HTML documents have a required structure that includes the following declaration and elements: <!DOCTYPE html>, <html>, <head>, and <body>.

The <!DOCTYPE> Declaration

The document type declaration, or <!DOCTYPE html>, informs web browsers which version of HTML is being used and is placed at the very beginning of the HTML document. Because we'll be using the latest version of HTML, our document type declaration is simply <!DOCTYPE html>,

It must only appear once, at the top of the page (before any HTML tags).It is not case sensitive.

<HTML> TAG

Serve to delimit the beginning and ending of an HTML document

<HEAD> TAG

Contains other HTML tags that contain metadata. Metadata provides information about the document such as title, description, keywords etc.

<TITLE> TAG

The <title> tag defines the title of the document. The title must be text-only, and it is shown in the browser's title bar or in the page's tab. It is required in HTML documents!

The contents of a page title is very important for search engine optimization (SEO)! The page title is used by search engine algorithms to decide the order when listing pages in search results.

You can NOT have more than one <title> element in an HTML document.

Here are some tips for creating good titles:

- Go for a longer descriptive title (avoid one- or two-word titles)
- Search engines will display about 50-60 characters of the title, so try not to have titles longer than that
- Do not use just a list of words as the title (this may reduce the page's position in search results)

<BODY> TAG

The <body> tag defines the document's body.

The <body> element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

There can only be one <body> element in an HTML document.

HTML ELEMENTS

Most HTML elements are written with a start tag (or opening tag) and an end tag (or closing tag), with content in between. Elements can also contain attributes that defines its additional properties. For example, a paragraph, which is represented by the p element, would be written as:

We will learn about the HTML attributes in the following lessons.

Examples of HTML elements:

Start tag	Element content	End tag
<h1>	My First Heading	</h1>
	My first paragraph.	
 	none	*none*

Note: Some HTML elements have no content (like the
 element). These elements are called empty elements.

NESTED HTML ELEMENTS

HTML elements can be nested (this means that elements can contain other elements).

All HTML documents consist of nested HTML elements.

The following example contains four HTML elements (<html>, <body>, <h1> and):

HTML tags should be nested in correct order. They must be closed in the inverse order of how they are defined, that means the last tag opened must be closed first.

Tip: Placing one element inside another is called nesting. A nested element, also called a child element, can be a parent element too if other elements are nested within it.

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

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```

HTML tags should be nested in correct order. They must be closed in the inverse order of how they are defined, that means the last tag opened must be closed first.

Tip: Placing one element inside another is called nesting. A nested element, also called a child element, can be a parent element too if other elements are nested within it.

EMPTY HTML ELEMENTS

HTML elements with no content are called empty elements (also called self-closing or void elements) that means, you can not write <hr>some content</hr> or
some content</br>. A typical example of an empty element, is the
 element, which represents a line break. Some other common empty elements are <img>, <input>, <link>, <meta>, <hr>, etc.

```
<p>This paragraph contains <br> a line break.</p>
<img src="images/sky.jpg" alt="Cloudy Sky">
<input type="text" name="username">
```

HTML ATTRIBUTES

Attributes define additional characteristics or properties of the element such as width and height of an image. Attributes are always specified in the start tag (or opening tag) and usually consists of name/value pairs like name="value". Attribute values should always be enclosed in quotation marks.

THE HREF ATTRIBUTE

The <a> tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to:

```
<a href="https://www.w3schools.com">Visit W3Schools</a>
```

Full code:

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

<h2>The href Attribute</h2>

<p>HTML links are defined with the a tag. The link address is specified
in the href attribute:</p>

<a href="https://www.w3schools.com">Visit W3Schools</a>

</body>
</html>
```

Result:

The href Attribute

HTML links are defined with the a tag. The link address is specified in the href attribute:

Visit W3Schools

You will learn more about links later.

THE SRC ATTRIBUTE

The <img> tag is used to embed an image in an HTML page. The src attribute specifies the path to the image to be displayed

```
<img src="img_girl.jpg">
```

There are two ways to specify the URL in the src attribute:

1. **Absolute URL** - Links to an external image that is hosted on another website. Example: src="https://www.w3schools.com/images/img_girl.jpg".

2. **Relative URL** - Links to an image that is hosted within the website. Here, the URL does not include the domain name. If the URL begins without a slash, it will be relative to the current page.
   Example: src="img_girl.jpg". If the URL begins with a slash, it will be relative to the domain. Example: src="/images/img_girl.jpg".

Tip: It is almost always best to use relative URLs. They will not break if you change domain.

THE WIDTH AND HEIGHT ATTRIBUTES

The <img> tag should also contain the width and height attributes, which specifies the width and height of the image (in pixels):

```
<img src="img_girl.jpg" width="200" height="200">
```

Full code:

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

<h2>Width and Height Attributes</h2>

<p>The width and height attributes of the img tag, defines the width
and height of the image:</p>

<img src="img_girl.jpg" width="200" height="200">

</body>
</html>
```

Result:

Width and Height Attributes

The width and height attributes of the img tag, defines the width and height of the image:

THE ALT ATTRIBUTE

The required alt attribute for the <img> tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to slow connection, or an error in the src attribute, or if the user uses a screen reader.

```
<img src="img_typo.jpg" alt="Girl with a jacket">
```

Full code:

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

<img src="img_typo.jpg" alt="Girl with a jacket">

<p>If we try to display an image that does not exist, the value of the
alt attribute will be displayed instead. </p>

</body>
</html>
```

Result:

Girl with a jacket

If we try to display an image that does not exist, the value of the alt attribute will be displayed instead.

THE STYLE ATTRIBUTE

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

```
<p style="color:red;">This is a red paragraph.</p>
```

Full code:

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

<h2>The style Attribute</h2>
<p>The style attribute is used to add styles to an element, such as
color:</p>

<p style="color:red;">This is a red paragraph.</p>

</body>
</html>
```

Result:

The style Attribute

The style attribute is used to add styles to an element, such as color:

This is a red paragraph.

You will learn more about styles later

THE LANG ATTRIBUTE

You should always include the lang attribute inside the <html> tag, to declare the language of the Web page. This is meant to assist search engines and browsers.

The following example specifies English as the language:

```
<!DOCTYPE html>
<html lang="en">
<body>
...
</body>
</html>
```

Country codes can also be added to the language code in the lang attribute. So, the first two characters define the language of the HTML page, and the last two characters define the country.

The following example specifies English as the language and United States as the country.

```
<!DOCTYPE html>
<html lang="en-US">
<body>
...
</body>
</html>
```

THE TITLE ATTRIBUTE

The title attribute defines some extra information about an element.

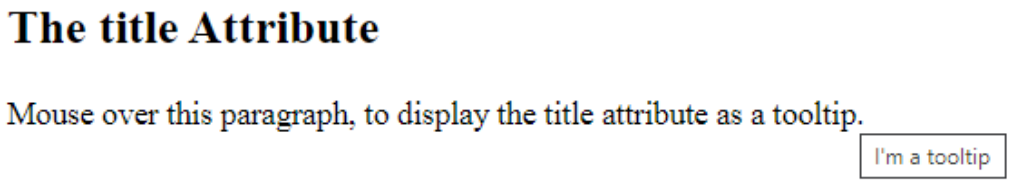
The value of the title attribute will be displayed as a tooltip when you mouse over the element

```
<p title="I'm a tooltip">This is a paragraph.</p>
```

Full code:

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

<h2 title="I'm a header">The title Attribute</h2>

<p title="I'm a tooltip">Mouse over this paragraph, to display the
title attribute as a tooltip.</p>

</body>
</html>
```

Result:



HTML HEADINGS

WHAT ARE HTML HEADINGS?

Headings help in defining the hierarchy and the structure of the web page content.

HTML offers six levels of heading tags, <h1> through <h6>; the higher the heading level number, the greater its importance — therefore <h1> tag defines the most important heading, whereas the <h6> tag defines the least important heading in the document.

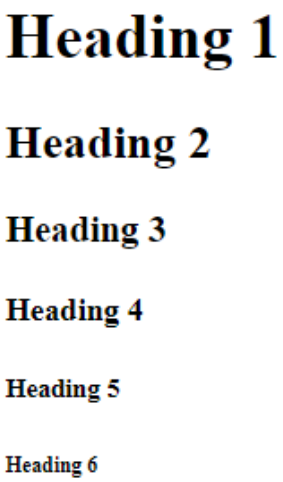
By default, browsers display headings in larger and bolder font than normal text. Also, <h1> headings are displayed in largest font, whereas <h6> headings are displayed in smallest font.

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

Full code:

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

<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>

</body>
</html>
```

Result:



IMPORTANCE OF HEADINGS

1. HTML headings provide valuable information by highlighting important topics and the structure of the document, so optimize them carefully to improve user engagement.

2. Don't use headings to make your text look BIG or bold. Use them only for highlighting the heading of your document and to show the document structure.

3. Since search engines, such as Google, use headings to index the structure and content of the web pages so use them very wisely in your webpage.

4. Use the <h1> headings as main headings of your web page, followed by the <h2> headings, then the less important <h3> headings, and so on.

HTML PARAGRAPHS

Paragraph element is used to publish text on the web pages.

Paragraphs are defined with the <p> tag. Paragraph tag is a very basic and typically the first tag you will need to publish your text on the web pages. Here's an example:

```
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
```

Full code:

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

<p>This is a paragraph.</p>
<p>This is a paragraph.</p>
<p>This is a paragraph.</p>

</body>
</html>
```

Result:

This is a paragraph.

This is a paragraph.

This is a paragraph.

CREATING HORIZONTAL RULES

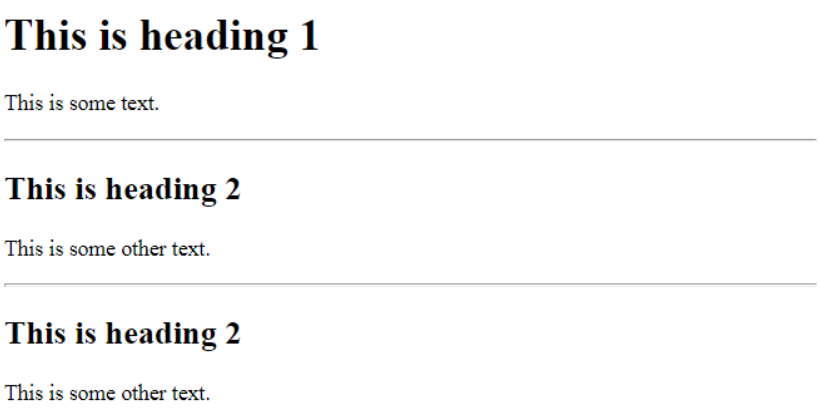
You can use the <hr> tag to create horizontal rules or lines to visually separate content sections on a web page. Like
, the <hr> tag is also an empty element. Here's an example:

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

Full code:

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

<h1>This is heading 1</h1>
<p>This is some text.</p>
<hr>

<h2>This is heading 2</h2>
<p>This is some other text.</p>
<hr>

<h2>This is heading 2</h2>
<p>This is some other text.</p>

</body>
</html>
```

Result:



MANAGING WHITE SPACES

You cannot be sure how HTML will be displayed.

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

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

Code:

```
<p>
This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.
</p>

<p>
This paragraph
contains        a lot of spaces
in the source        code,
but the       browser
ignores it.
</p>
```

Result:

This paragraph contains a lot of lines in the source code, but the browser ignores it.

This paragraph contains a lot of spaces in the source code, but the browser ignores it.

The number of lines in a paragraph depends on the size of the browser window. If you resize the browser window, the number of lines in this paragraph will change.

DEFINING PREFORMATTED TEXT

Sometimes, using ,
, etc. for managing spaces isn't very convenient. Alternatively, you can use the <pre> tag to display spaces, tabs, line breaks, etc. exactly as written in the HTML file. It is very helpful in presenting text where spaces and line breaks are important like poem or code.

With no <pre> element:

```
<p>
  My Bonnie lies over the ocean.

  My Bonnie lies over the sea.

  My Bonnie lies over the ocean.

  Oh, bring back my Bonnie to me.
</p>
```

Full Code with result:

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

<p>In HTML, spaces and new lines are ignored:</p>

<p>

  My Bonnie lies over the ocean.

  My Bonnie lies over the sea.

  My Bonnie lies over the ocean.

  Oh, bring back my Bonnie to me.

</p>

</body>
</html>
```

In HTML, spaces and new lines are ignored:

My Bonnie lies over the ocean. My Bonnie lies over the sea. My Bonnie lies over the ocean. Oh, bring back my Bonnie to me.

With <pre> element:

```
<pre>
  My Bonnie lies over the ocean.

  My Bonnie lies over the sea.

  My Bonnie lies over the ocean.

  Oh, bring back my Bonnie to me.
</pre>
```

Full code:

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

<p>The pre tag preserves both spaces and line breaks:</p>

<pre>
   My Bonnie lies over the ocean.

   My Bonnie lies over the sea.

   My Bonnie lies over the ocean.

   Oh, bring back my Bonnie to me.
</pre>

</body>
</html>
```

Result:

The pre tag preserves both spaces and line breaks:

```
   My Bonnie lies over the ocean.

   My Bonnie lies over the sea.

   My Bonnie lies over the ocean.

   Oh, bring back my Bonnie to me.
```

LINE BREAKS

The HTML
 element defines a line break.

Use
 if you want a line break (a new line) without starting a new paragraph:

```
<p>This is<br>a paragraph<br>with line breaks.</p>
```

Full code:

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

<p>The pre tag preserves both spaces and line breaks:</p>

<pre>
   My Bonnie lies over the ocean.

   My Bonnie lies over the sea.

   My Bonnie lies over the ocean.

   Oh, bring back my Bonnie to me.
</pre>

</body>
</html>
```

Code:

The pre tag preserves both spaces and line breaks:

```
   My Bonnie lies over the ocean.

   My Bonnie lies over the sea.

   My Bonnie lies over the ocean.

   Oh, bring back my Bonnie to me.
```

HTML STYLES

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

These are the three methods of implementing styling information to an HTML document.

1. Inline styles — Using the style attribute in the HTML start tag.
2. Embedded style — Using the <style> element in the head section of the document.
3. External style sheet — Using the <link> element, pointing to an external CSS files.

INLINE STYLES

Inline styles are used to apply the unique style rules to an element, by putting the CSS rules directly into the start tag. It can be attached to an element using 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.

Background Color

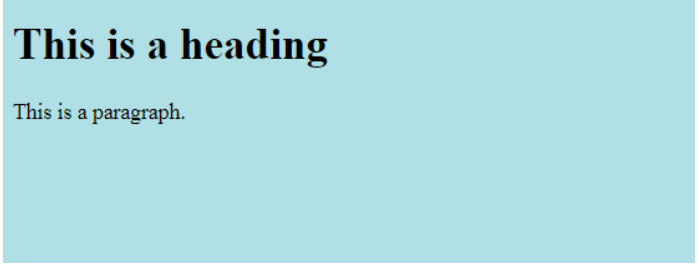
The CSS background-color property defines the background color for an HTML element.

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

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
```

Full code:

```
<!DOCTYPE html>
<html>
<body style="background-color:powderblue;">

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

Result:



You could also set background color for two different elements:

```
<body>

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

</body>
```

Full Code:

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

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

</body>
</html>
```

Result:

Text Color

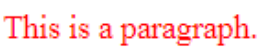
The CSS color property defines the text color for an HTML element:

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

Full code:

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

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

</body>
</html>
```

Result:



Fonts

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

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

Full code:

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

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

</body>
</html>
```

Result:

This is a paragraph.

Text Size

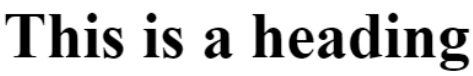
The CSS font-size property defines the text size for an HTML element:

```
<h1 style="font-size:300%;">This is a heading</h1>
<p style="font-size:160%;">This is a paragraph.</p>
```

Full code:

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

<h1 style="font-size:300%;">This is a heading</h1>
<p style="font-size:160%;">This is a paragraph.</p>

</body>
</html>
```

Result:



This is a paragraph.

Text Alignment

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

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

Full code:

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

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

</body>
</html>
```

Result:

Centered paragraph.

EMBEDDED STYLE SHEETS

Embedded or internal style sheets only affect the document they are embedded in.

Embedded style sheets are defined in the <head> section of an HTML document using the <style> tag. You can define any number of <style> elements inside the <head> section.

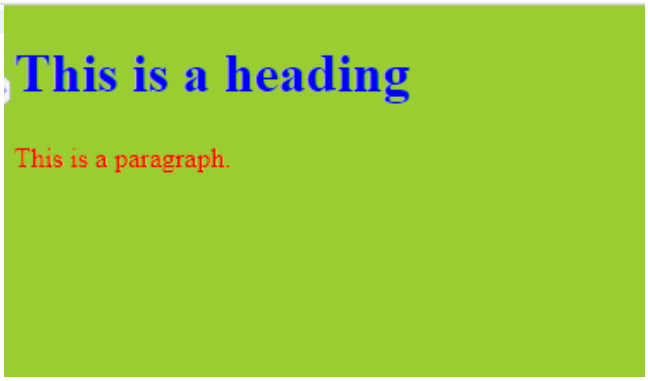
The following example demonstrates how style rules are embedded inside a web page.

```
<head>
    <style>
        body { background-color: YellowGreen; }
        h1 { color: blue; }
        p { color: red; }
    </style>
</head>
```

Full Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Using Embedded Style Sheet in HTML</title>
    <style type="text/css">
        body { background-color: YellowGreen; }
        h1 { color: blue; }
        p { color: red; }
    </style>
</head>
<body>
    <h1>This is a heading</h1>
    <p>This is a paragraph.</p>
</body>
</html>
```

Result:



EXTERNAL STYLE SHEETS

An external style sheet is ideal when the style is applied to many pages.

An external style sheet holds all the style rules in a separate document that you can link from any HTML document on your site. External style sheets are the most flexible because with an external style sheet, you can change the look of an entire website by updating just one file.

You can attach external style sheets in two ways — linking and importing:

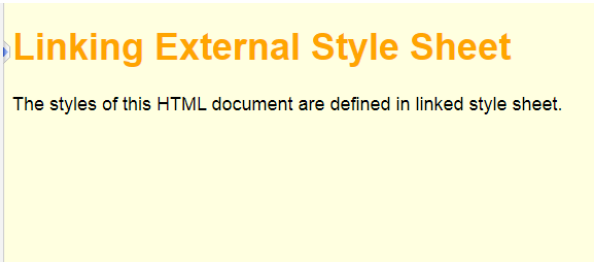
Linking External Style Sheets

An external style sheet can be linked to an HTML document using the <link> tag. The <link> tag goes inside the <head> section, as shown here:

```
<head>
    <link rel="stylesheet" href="css/style.css">
</head>
```

Full code with results:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Linking External Style Sheet in HTML</title>
    <link rel="stylesheet" href="/examples/css/style.css">
</head>
<body>
    <h1>Linking External Style Sheet</h1>
    <p>The styles of this HTML document are defined in linked style sheet.
</p>
</body>
</html>
```



Importing External Style Sheets

The @import rule is another way of loading an external style sheet. The @import statement instructs the browser to load an external style sheet and use its styles.

You can use it in two ways. The simplest way is to use it within the <style> element in your <head> section. Note that, other CSS rules may still be included in the <style> element.

```
<style>
    @import url("css/style.css");
    p {
        color: blue;
        font-size: 16px;
    }
</style>
```

Full code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Importing Style Sheet in HTML</title>
    <style type="text/css">
        @import url("/examples/css/style.css");
        p {
            color: blue;
            font-size: 16px;
        }
    </style>
</head>
<body>
    <h1>The styles for this heading are defined in the imported style
sheet</h1>
    <p>The styles for this paragraph are defined in the embedded style
sheet.</p>
</body>
</html>
```

Results:

Similarly, you can use the @import rule to import a style sheet within another style sheet.

```
@import url("css/layout.css");
@import url("css/color.css");
body {
    color: blue;
    font-size: 14px;
}
```

Full Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Using the CSS @import Rule</title>
    <style type="text/css">
        @import url("/examples/css/layout.css");
        @import url("/examples/css/color.css");
        body {
            color:blue;
            font-size:14px;
        }
    </style>
</head>
<body>
    <div>
        <h1>Importing External Style Sheet</h1>
        <p>The layout styles of these HTML element is defined in
'layout.css' and colors in 'color.css'.</p>
    </div>
</body>
</html>
```

Result:

HTML TEXT FORMATTING

HTML provides several tags that you can use to make some text on your web pages to appear differently than normal text

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

```
<p>This is <b>bold text</b>.</p>
<p>This is <strong>strongly important text</strong>.</p>
<p>This is <i>italic text</i>.</p>
<p>This is <em>emphasized text</em>.</p>
<p>This is <mark>highlighted text</mark>.</p>
<p>This is <code>computer code</code>.</p>
<p>This is <small>smaller text</small>.</p>
<p>This is <sub>subscript</sub> and <sup>superscript</sup> text.</p>
<p>This is <del>deleted text</del>.</p>
<p>This is <ins>inserted text</ins>.</p>
```

Full code with results:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Formatting Text in HTML</title>
</head>
<body>
    <p>This is <b>bold text</b>.</p>
    <p>This is <strong>strongly important text</strong>.</p>
    <p>This is <i>italic text</i>.</p>
    <p>This is <em>emphasized text</em>.</p>
    <p>This is <mark>highlighted text</mark>.</p>
    <p>This is <code>computer code</code>.</p>
    <p>This is <small>smaller text</small>.</p>
    <p>This is <sub>subscript</sub> and <sup>superscript</sup> text.</p>
    <p>This is <del>deleted text</del>.</p>
    <p>This is <ins>inserted text</ins>.</p><p>This is <b>bold text</b>.</p>
</body>
</html>
```

This is **bold text**.

This is **strongly important text**.

This is *italic text*.

This is *emphasized text*.

This is highlighted text.

This is `computer code`.

This is smaller text.

This is subscript and superscript text.

This is ~~deleted text~~.

This is inserted text.

This is **bold text**.

DIFFERENCE BETWEEN <STRONG> AND <B> TAG

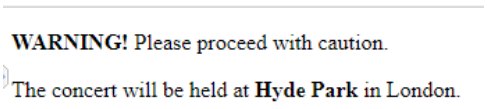
Both and <b> tags render the enclosed text in a bold typeface by default, but the tag indicates that its contents have strong importance, whereas the <b> tag is simply used to draw the reader's attention without conveying any special importance.

```
<p><strong>WARNING!</strong> Please proceed with caution.</p>
<p>The concert will be held at <b>Hyde Park</b> in London.</p>
```

Full Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML strong Vs b Tag</title>
</head>
<body>
    <p><strong>WARNING!</strong> Please proceed with caution.</p>
    <p>The concert will be held at <b>Hyde Park</b> in London.</p>
</body>
</html>
```

Result:



DIFFERENCE BETWEEN <EM> AND <I> TAG

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.

The HTML element defines emphasized text. The content inside is typically displayed in italic.

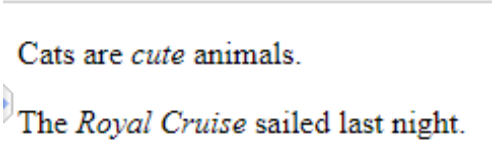
Tip: A screen reader will pronounce the words in with an emphasis, using verbal stress.

```
<p>Cats are <em>cute</em> animals.</p>
<p>The <i>Royal Cruise</i> sailed last night.</p>
```

Full Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML em Vs i Tag</title>
</head>
<body>
    <p>Cats are <em>cute</em> animals.</p>
    <p>The <i>Royal Cruise</i> sailed last night.</p>
</body>
</html>
```

Result:



FORMATTING QUOTATIONS

You can easily format the quotation blocks from other sources with the HTML <blockquote> tag.

Blockquotes are generally displayed with indented left and right margins, along with a little extra space added above and below.

```
<blockquote>
    <p>Learn from yesterday, live for today, hope for
tomorrow. The important thing is not to stop questioning.</p>
    <cite>– Albert Einstein</cite>
</blockquote>
```

Tip: The cite tag is used to describe a reference to a creative work. It must include the title of that work or the name of the author (people or organization) or an URL reference.

Full Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML Block Quotations</title>
</head>
<body>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam eu sem
tempor, varius quam at, luctus dui. Mauris magna metus, dapibus nec turpis
vel, semper malesuada ante. Vestibulum id metus ac nisl bibendum scelerisque
non non purus. Suspendisse varius nibh non aliquet sagittis. In tincidunt
orci sit amet elementum vestibulum. Vivamus fermentum in arcu in aliquam.
</p>

    <blockquote>
        <p>Learn from yesterday, live for today, hope for tomorrow. The
important thing is not to stop questioning.</p>
        <cite>&mdash; Albert Einstein</cite>
    </blockquote>

    <p>Pulvinar leo id risus pellentesque vestibulum. Sed diam libero,
sodales eget sapien vel, porttitor bibendum enim. Donec sed nibh vitae lorem
porttitor blandit in nec ante. Pellentesque vitae metus ipsum. Phasellus sed
nunc ac sem malesuada condimentum. Etiam in aliquam lectus. Nam vel sapien
diam. Donec pharetra id arcu eget blandit.</p>
</body>
</html>
```

Result:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam eu sem tempor, varius quam at, luctus dui. Mauris magna metus, dapibus nec turpis vel, semper malesuada ante. Vestibulum id metus ac nisl bibendum scelerisque non non purus. Suspendisse varius nibh non aliquet sagittis. In tincidunt orci sit amet elementum vestibulum. Vivamus fermentum in arcu in aliquam.

> Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning.
>
> — *Albert Einstein*

Pulvinar leo id risus pellentesque vestibulum. Sed diam libero, sodales eget sapien vel, porttitor bibendum enim. Donec sed nibh vitae lorem porttitor blandit in nec ante. Pellentesque vitae metus ipsum. Phasellus sed nunc ac sem malesuada condimentum. Etiam in aliquam lectus. Nam vel sapien diam. Donec pharetra id arcu eget blandit.

For short inline quotations, you can use the HTML <q> tag. Most browsers display inline quotes by surrounding the text in quotation marks. Here's an example:

```
<p>According to the World Health Organization (WHO):
<q>Health is a state of complete physical, mental, and social
well-being.</q></p>
```

Full Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML Inline Quotations</title>
</head>
<body>
    <p>According to the World Health Organization (WHO): <q>Health is a
state of complete physical, mental, and social well-being.</q></p>
</body>
</html>
```

Result:

According to the World Health Organization (WHO): “Health is a state of complete physical, mental, and social well-being.”

SHOWING ABBREVIATIONS

An abbreviation is a shortened form of a word, phrase, or name.

You can use the <abbr> tag to denote an abbreviation. The title attribute is used inside this tag to provide the full expansion of the abbreviation, which is displayed by the browsers as a tooltip when the mouse cursor is hovered over the element. Let's try out an example:

```
<p>The <abbr title="World Wide Web Consortium">W3C</abbr> is
the main international standards organization for the <abbr
title="World Wide Web">WWW or
W3</abbr>. It was was founded by Tim Berners-Lee.</p>
```

Full code with results:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Showing Abbreviations in HTML</title>
</head>
<body>
    <p>The <abbr title="World Wide Web Consortium">W3C</abbr> is the main
international standards organization for the <abbr title="World Wide
Web">WWW or W3</abbr>. It was was founded by Tim Berners-Lee.</p>
</body>
</html>
```

The W3C is the main international standards organization for the WWW or W3. It was was founded by Tim Berners-Lee.

MARKING CONTACT ADDRESSES

Web pages often include street or postal addresses. HTML provides a special tag <address> to represent contact information (physical and/or digital) for a person, people or organization.

This tag should ideally used to display contact information related to the document itself, such as article's author. Most browsers display an address block in italic.

```
<address>
Mozilla Foundation<br>
331 E. Evelyn Avenue<br>
Mountain View, CA 94041, USA
</address>
```

Full Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Formatting Addresses in HTML</title>
</head>
<body>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam eu sem
tempor, varius quam at, luctus dui. Mauris magna metus, dapibus nec turpis
vel, semper malesuada ante. Vestibulum id metus ac nisl bibendum scelerisque
non non purus. Suspendisse varius nibh non aliquet sagittis. In tincidunt
orci sit amet elementum vestibulum. Vivamus fermentum in arcu in aliquam.
Quisque aliquam porta odio in fringilla. Vivamus nisl leo, blandit at
bibendum eu, tristique eget risus. Integer aliquet quam ut elit suscipit, id
interdum neque porttitor. Integer faucibus ligula.</p>
    <address>
    Mozilla Foundation<br>
    331 E. Evelyn Avenue<br>
    Mountain View, CA 94041, USA
    </address>
</body>
</html>
```

Result:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam eu sem tempor, varius quam at, luctus dui. Mauris magna metus, dapibus nec turpis vel, semper malesuada ante. Vestibulum id metus ac nisl bibendum scelerisque non non purus. Suspendisse varius nibh non aliquet sagittis. In tincidunt orci sit amet elementum vestibulum. Vivamus fermentum in arcu in aliquam. Quisque aliquam porta odio in fringilla. Vivamus nisl leo, blandit at bibendum eu, tristique eget risus. Integer aliquet quam ut elit suscipit, id interdum neque porttitor. Integer faucibus ligula.

Mozilla Foundation
331 E. Evelyn Avenue
Mountain View, CA 94041, USA

HTML <SMALL> ELEMENT

The HTML <small> element defines smaller text:

```
<small>This is some smaller text.</small>
```

Full code:

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

<p>This is some normal text.</p>
<p><small>This is some smaller text.</small></p>

</body>
</html>
```

Result:

This is some normal text.

This is some smaller text.

HTML <MARK> ELEMENT

The HTML <mark> element defines text that should be marked or highlighted:

```
<p>Do not forget to buy <mark>milk</mark> today.</p>
```

Full code:

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

<p>Do not forget to buy <mark>milk</mark> today.</p>

</body>
</html>
```

Result:

Do not forget to buy milk today.

HTML <DEL> ELEMENT

he HTML <del> element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:

```
<p>My favorite color is <del>blue</del> red.</p>
```

Full code:

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

<p>My favorite color is <del>blue</del> red.</p>

</body>
</html>
```

Result:

My favorite color is ~~blue~~ red.

HTML <INS> ELEMENT

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

```
<p>My favorite color is <del>blue</del> <ins>red</ins>.</p>
```

Full code:

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

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

</body>
</html>
```

Result:

My favorite color is ~~blue~~ red.

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:

```
<p>This is <sub>subscripted</sub> text.</p>
```

Full code:

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

<p>This is <sub>subscripted</sub> text.</p>

</body>
</html>
```

Results:

This is $_{\text{subscripted}}$ 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]:

```
<p>This is <sup>superscripted</sup> text.</p>
```

Full Code:

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

<p>This is <sup>superscripted</sup> text.</p>

</body>
</html>
```

Results:

This is superscripted text.

HTML COMMENTS

WHAT ARE HTML COMMENTS?

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

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.

Comments are also great for debugging HTML, because you can comment out HTML lines of code, one at a time, to search for errors:

```
<!-- Do not display this image at the moment
<img border="0" src="pic_trulli.jpg" alt="Trulli">
-->
```

Full code:

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

<p>Comment below will not be displayed</p>

<!-- Do not display this at the moment
<img border="0" src="pic_trulli.jpg" alt="Trulli">
-->

</body>
</html>
```

Result:

Comment below will not be displayed

References:

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