



HTML Markup Structures

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2021-2022

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Launch the editor

- Code editors are probably the most important tools of web developers. Finding one that best fits your workflow and goals, and has all the features you need can save you a lot of time and significantly improve your code quality.
- For this course we use VS code editor.
- Visual Studio Code is Microsoft's cross-platform source code editor that runs on all major operating systems



Brackets



Notepad++



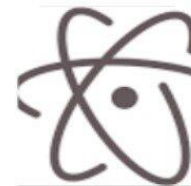
Komodo Edit



Visual Studio
Code



Sublime
Text

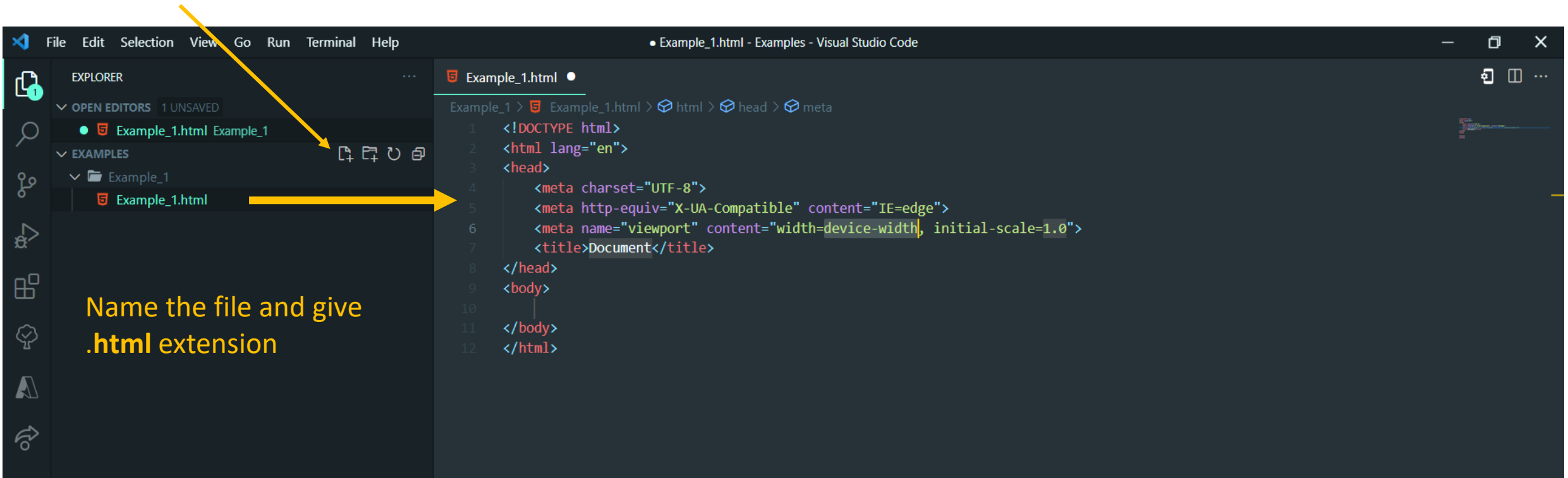


Atom

Launch the editor

- Create a folder in the location you want to save the website folder > open the VS code editor > File > open folder > choose the folder > select Folder
- Every HTML file has the extension **.html**

Create new File

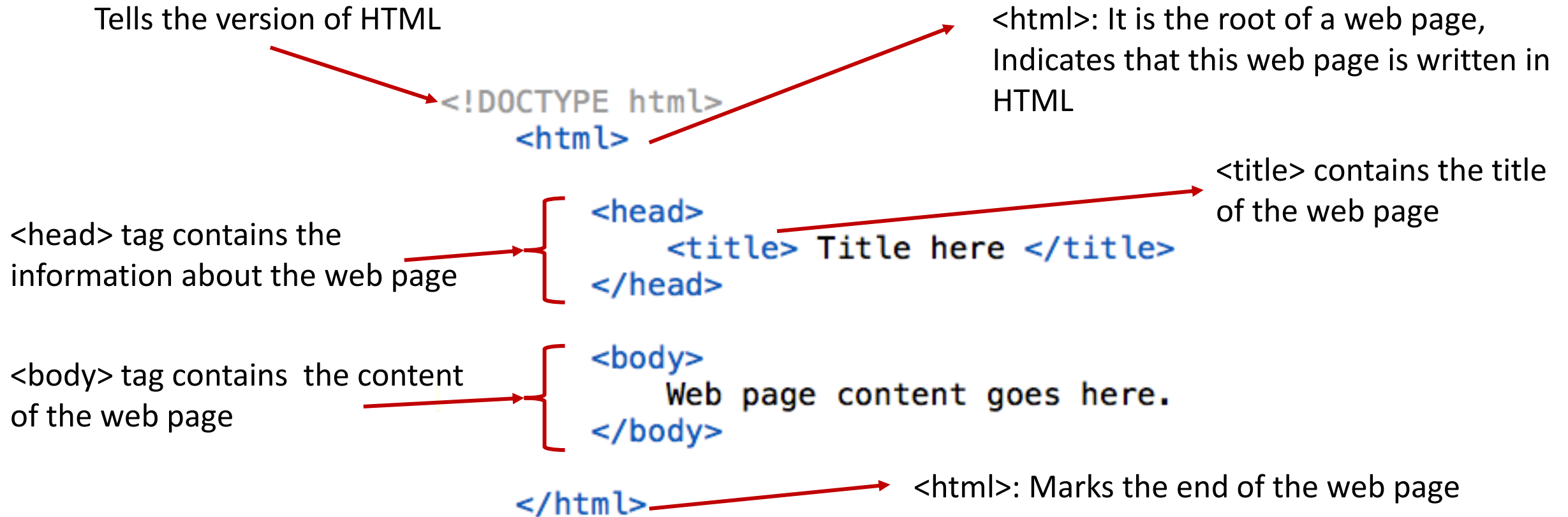


What is HTML?

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

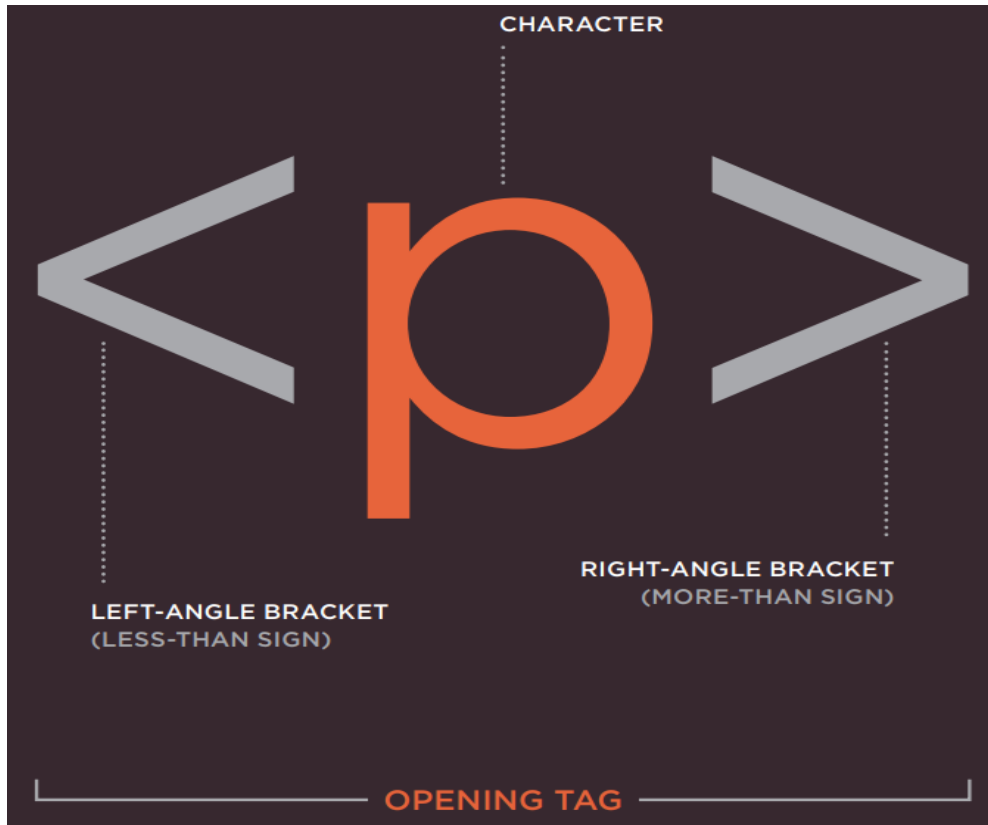


HTML Structure

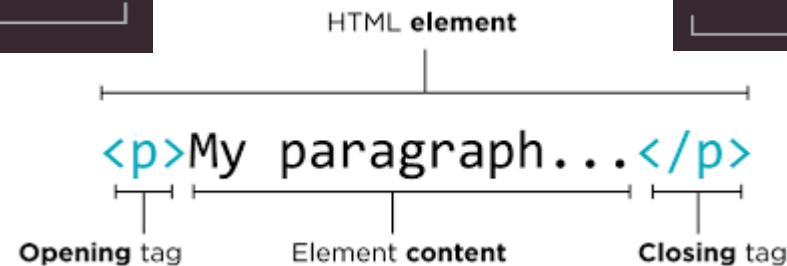
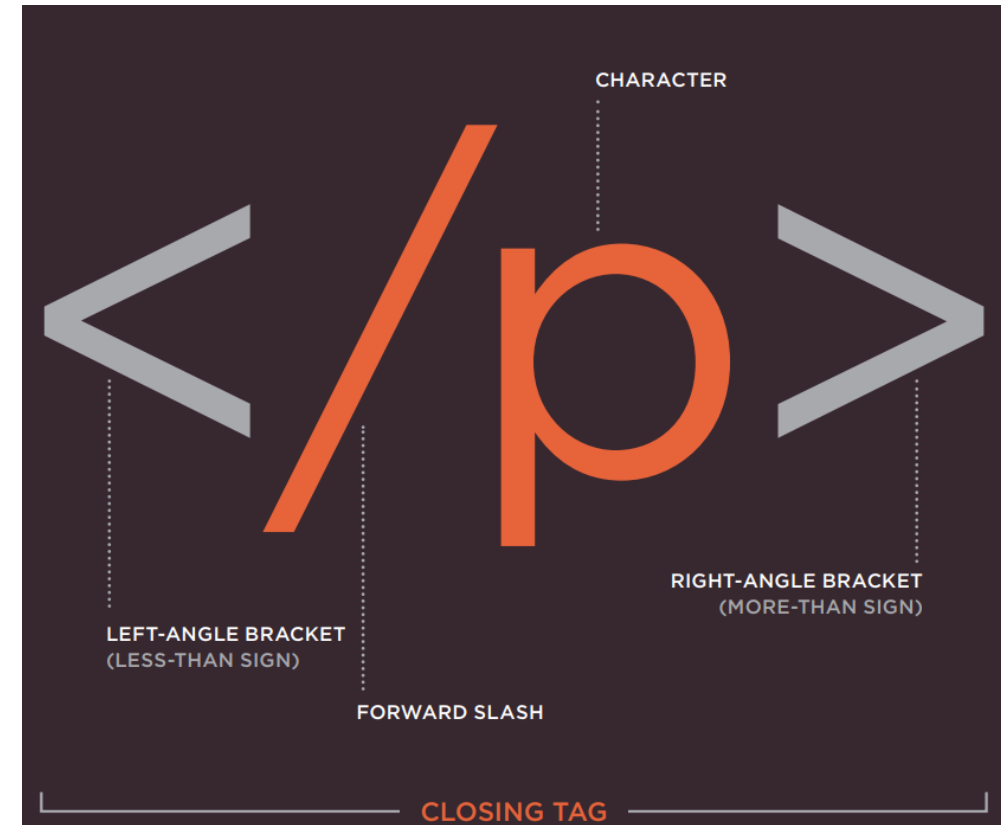


HTML Elements

- The HTML **element** is everything from the start tag (opening tag) to the end tag (closing tag)



The test
written in
between



HTML Heading

- HTML headings are titles or subtitles that you want to display on a webpage.
- HTML has six "levels" of headings

<h1>

<h2>

<h3>

<h4>

<h5>

<h6>

- HTML headings are defined with the <h1> to <h6> tags.
- <h1> defines the most important heading. <h6> defines the least important heading.

<h1>Heading 1</h1>

<h2>Heading 2</h2>

<h3>Heading 3</h3>

<h4>Heading 4</h4>

<h5>Heading 5</h5>

<h6>Heading 6</h6>

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

HTML Heading (Example)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Example 1</title>
</head>
<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>
```

HTML code

Heading 1

Heading 2

Heading 3

Heading 4

heading 5

Heading 6

Result in the browser

HTML Paragraphs

- The HTML `<p>` element defines a paragraph.
- paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph.



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

```
<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>
```

```
<p>
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.
</p>
```

```
</body>
</html>
```

Line Breaks and Horizontal Line

- `
` : to add a line break inside the middle of a paragraph you can use the line break tag `
`

HTML chapter-02/horizontal-rules.html

```
<p>Venus is the only planet that rotates  
clockwise.</p>  
<hr />  
<p>Jupiter is bigger than all the other planets  
combined.</p>
```

RESULT

Venus is the only planet that rotates clockwise.

Jupiter is bigger than all the other planets combined.

HTML chapter-02/line-breaks.html

```
<p>The Earth<br />gets one hundred tons heavier  
every day<br />due to falling space dust.</p>
```

RESULT

The Earth
gets one hundred tons heavier every day
due to falling space dust.

- `<hr />` :To create a break between themes — such as a change of topic in a book or a new scene in a play — you can add a horizontal rule between sections using the `<hr />` tag.

Bold & Italic

- **** : By enclosing words in the tags **** and **** we can make characters appear bold

chapter-02/italic.html

HTML

```
<p>This is how we make a word appear <i>italic</i>.  
</p>  
<p>It's a potato <i>Solanum teberosum</i>.</p>  
<p>Captain Cook sailed to Australia on the  
<i>Endeavour</i>.</p>
```

This is how we make a word appear *italic*.

RESULT

It's a potato *Solanum teberosum*.

Captain Cook sailed to Australia on the *Endeavour*.

chapter-02/bold.html

HTML

```
<p>This is how we make a word appear <b>bold.</b>  
</p>  
<p>Inside a product description you might see some  
<b>key features</b> in bold.</p>
```

This is how we make a word appear **bold**.

RESULT

Inside a product description you might see
some **key features** in bold.

- **<i>** : By enclosing words in the tags **<i>** and **</i>** we can make characters appear italic.

Underline

- **<u>** : By enclosing words in the tags **<u>** and **</u>** we can make the word underlined

```
<!DOCTYPE html>
<html>
<head>

</head>
<body>

<p>This is how we can <u>underline</u> a text.</p>

</body>
</html>
```

HTML

RESULT

This is how we can underline a text.

Superscript & subscript

HTML

chapter-02/superscript-and-subscript.html

```
<p>On the 4<sup>th</sup> of September you will learn
about E=MC<sup>2</sup>.</p>
<p>The amount of CO<sub>2</sub> in the atmosphere
grew by 2ppm in 2009<sub>1</sub>.</p>
```

RESULT

On the 4th of September you will learn about E=MC².
The amount of CO₂ in the atmosphere grew by 2ppm in 2009₁.

- **<sup>**: The **<sup>** element is used to contain characters that should be superscript such as the suffixes of dates or mathematical concepts
- **<sub>**: The **<sub>** element is used to contain characters that should be subscript. It is commonly used with foot notes or chemical formulas.

Strong & Emphasis

- ****: The use of the **** element indicates that its content has strong importance. For example, the words contained in this element might be said with strong emphasis

chapter-02/emphasis.html

HTML

```
<p>I <em>think</em> Ivy was the first.</p>
<p>I think <em>Ivy</em> was the first.</p>
<p>I think Ivy was the <em>first</em>.</p>
```

I think Ivy was the first.

I think *Ivy* was the first.

I think Ivy was the *first*.

RESULT

chapter-02/strong.html

HTML

```
<p><strong>Beware:</strong> Pickpockets operate in
  this area.</p>
<p>This toy has many small pieces and is <strong>not
  suitable for children under five years old.
</strong></p>
```

Beware: Pickpockets operate in this area.

This toy has many small pieces and is **not**
suitable for children under five years old.

RESULT

- **** The **** element indicates emphasis that subtly changes the meaning of a sentence

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.
- We can also hide more than one line, everything between the <!-- and the --> will be hidden from the display

Example

```
<!-- This is a comment -->

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

<!-- Remember to add more information here -->
```

```
<p>This is a paragraph.</p>
<!--
<p>Look at this cool image:</p>

-->
<p>This is a paragraph too.</p>
```

Escape Characters

- Reserved characters in HTML must be replaced with character entities.
- If you use the less than (<) or greater than (>) signs in your text, the browser might mix them with tags.
- A character entity looks like this:

`&entity_name;`

OR

Example 

`&#entity_number;`

- To display a less than sign (<) we must write: **<** or **<**

- **Advantage of using an entity name:** An entity name is easy to remember.
- **Disadvantage of using an entity name:** Browsers may not support all entity names, but the support for entity numbers is good.

Escape Characters

Result	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	double quotation mark	"	"
'	single quotation mark (apostrophe)	'	'
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
€	euro	€	€
©	copyright	©	©
®	registered trademark	®	®