



MMGD0204

Web Application Technology

Chapter 7

CASCADING STYLE SHEETS

Chapter 7 – CSS

Introduction to CSS

- CSS stands for Cascading Style Sheets
- Styles define how to display HTML elements
- Styles were added to HTML 4.0 to solve a problem
- External Style Sheets can save a lot of work
- External Style Sheets are stored in CSS files
- All browsers support CSS today

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Advantages of CSS

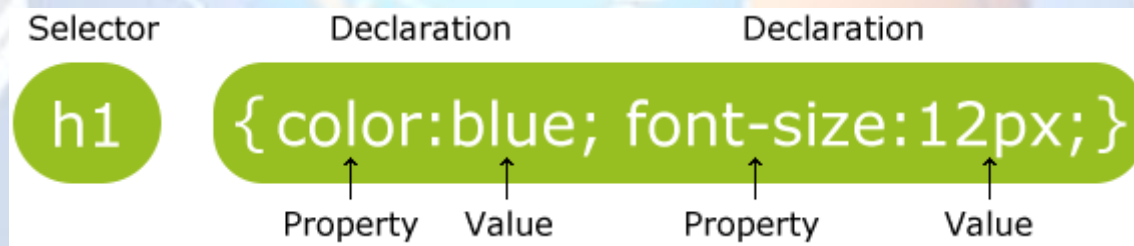
- CSS saves time
- Pages load faster
- Easy maintenance
- Superior styles to HTML



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CSS Syntax

- A CSS rule has two main parts: a selector, and one or more declarations:



- The selector is normally the HTML element you want to style
- Each declaration consists of a property and a value
- The property is the style attribute you want to change. Each property has a value

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CSS Example

- CSS declarations always ends with a semicolon, and declaration groups are surrounded by curly brackets:

```
p {color:red;text-align:center;}
```

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CSS Example

- To make the CSS more readable, you can put one declaration on each line, like this:

```
p  
{  
color:red;  
text-align:center;  
}
```

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CSS Comment

- Comments are used to explain your code, and may help you when you edit the source code at a later date.
- Comments are ignored by browsers.
- A CSS comment begins with "/*", and ends with "*/", like this:

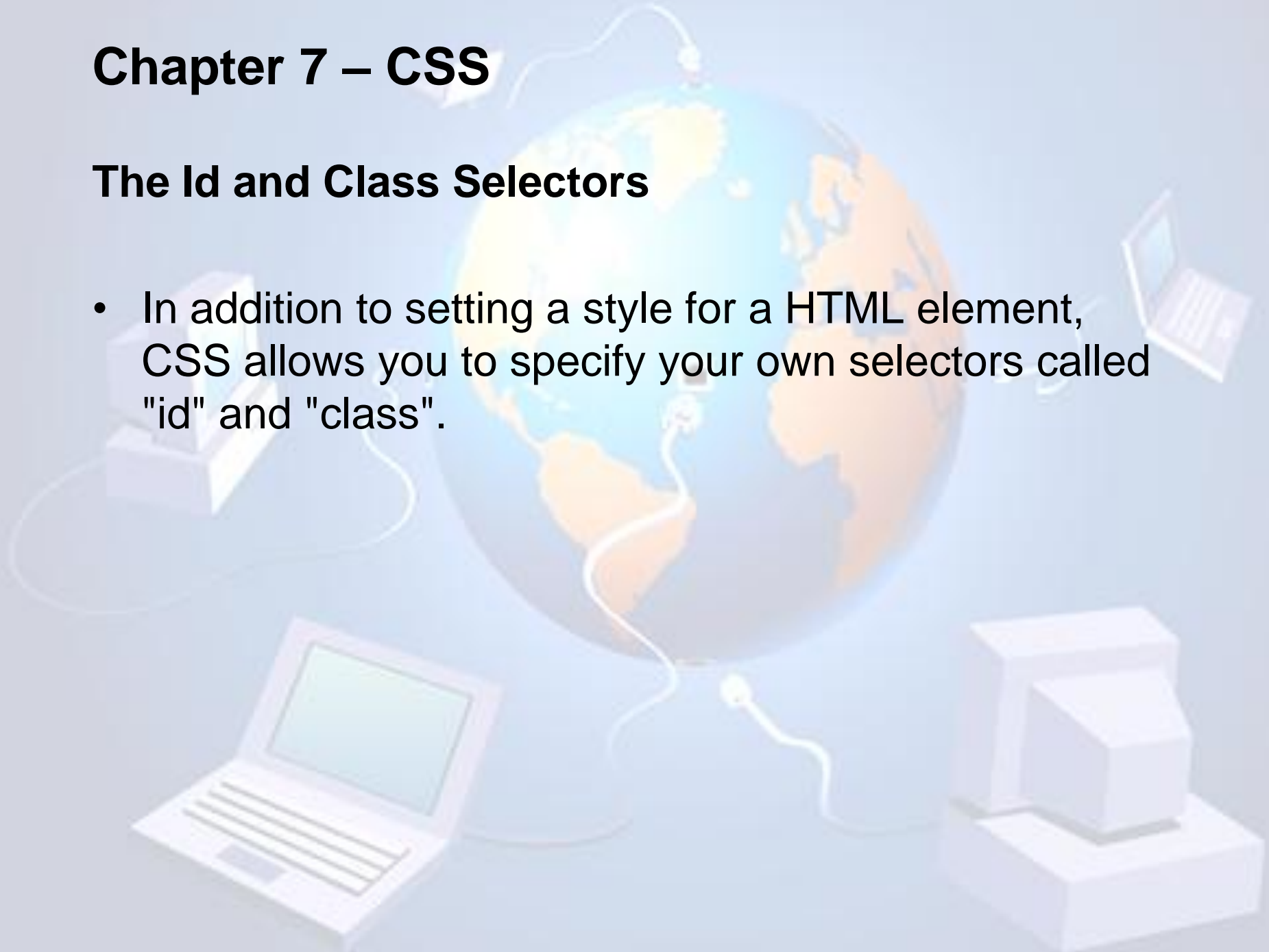
```
/*This is a comment*/
```

```
p {text-align:center;color:black;font-family:arial;}
```


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The Id and Class Selectors

- In addition to setting a style for a HTML element, CSS allows you to specify your own selectors called "id" and "class".



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The Id Selectors

- The id selector is used to specify a style for a single, unique element.
- The id selector uses the id attribute of the HTML element, and is defined with a "#".
- Do **NOT** start an ID name with a number.

```
#para1  
{  
text-align:center;  
color:red;  
}
```

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The Class Selectors

- The class selector is used to specify a style for a group of elements.
- Unlike the id selector, the class selector is most often used on several elements.
- This allows you to set a particular style for many HTML elements with the same class.
- The class selector uses the HTML class attribute, and is defined with a "."

```
.center {text-align:center;}
```

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The Class Selectors

- You can also specify that only specific HTML elements should be affected by a class.

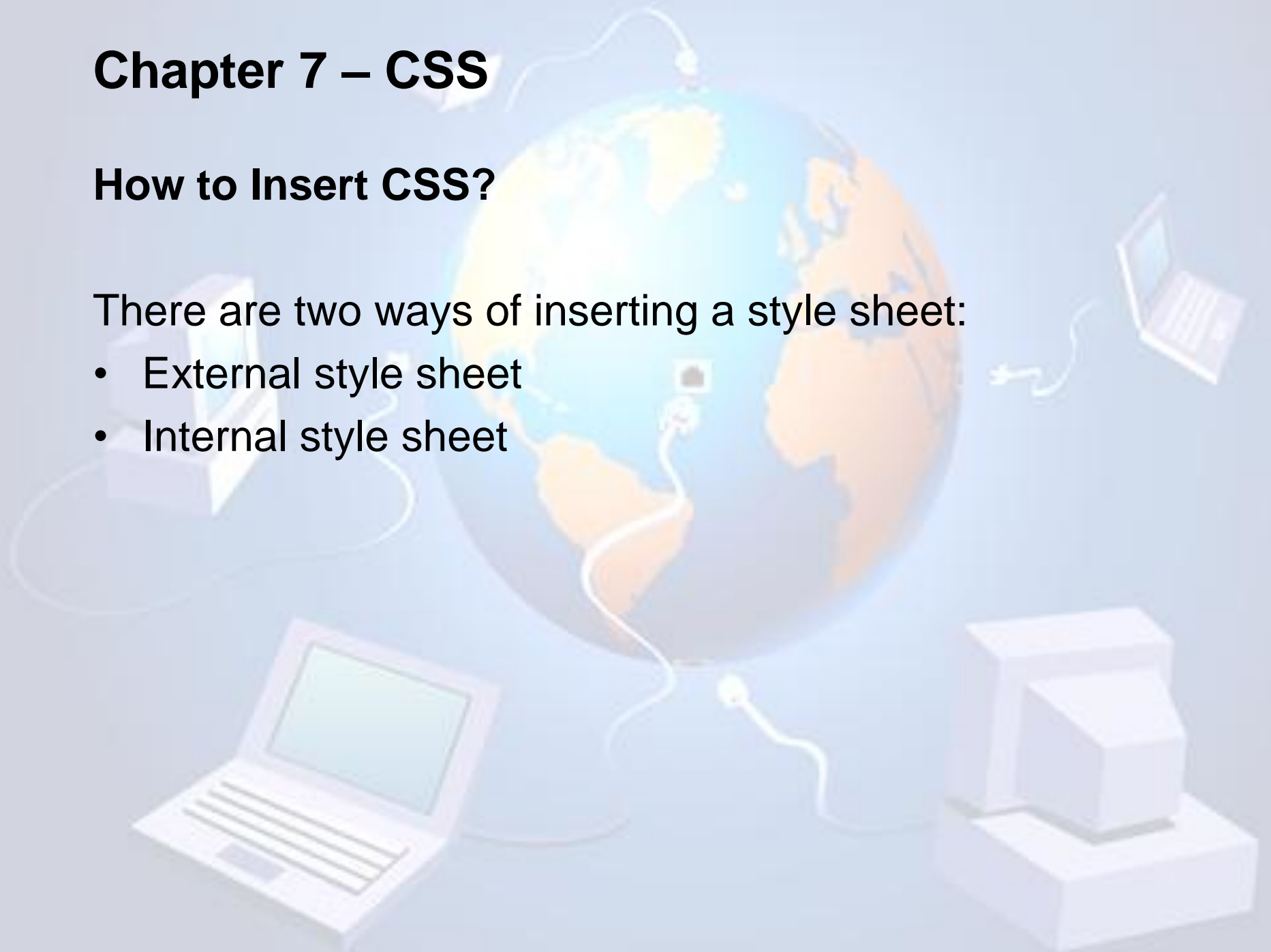
```
p.center {text-align:center;}
```

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How to Insert CSS?

There are two ways of inserting a style sheet:

- External style sheet
- Internal style sheet



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External Style Sheet

- An external style sheet is ideal when the style is applied to many pages.
- With an external style sheet, you can change the look of an entire Web site by changing one file.
- Each page must link to the style sheet using the `<link>` tag.
- The `<link>` tag goes inside the head section:

```
<head>  
<link rel="stylesheet" type="text/css" href="mystyle.css" />  
</head>
```

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External Style Sheet

- An external style sheet can be written in any text editor.
- The file should not contain any html tags.
- Your style sheet should be saved with a .css extension.

```
hr {color:sienna;}  
p {margin-left:20px;}  
body {background-image:url("images/back40.gif");}
```

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Internal Style Sheet

- An internal style sheet should be used when a single document has a unique style
- You define internal styles in the head section of an HTML page, by using the `<style>` tag

```
<head>  
<style type="text/css">  
hr {color:sienna;}  
p {margin-left:20px;}  
body {background-image:url("images/back40.gif");}  
</style>  
</head>
```


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CSS - Example

```
<html>
<head>
<style type="text/css">
.header1 {font-size:24;font-color:red;align:center;}
.header2 {font-size:18;font-color:orange;}
.p1 {margin-left:20px;}
</style>
</head>
<body>
<h1 class='header1'>My Website</h1>
<h2 class='header2'>My Profile</h2>
<p class='p1'>This is the first paragraph</p>
</body>
</html>
```

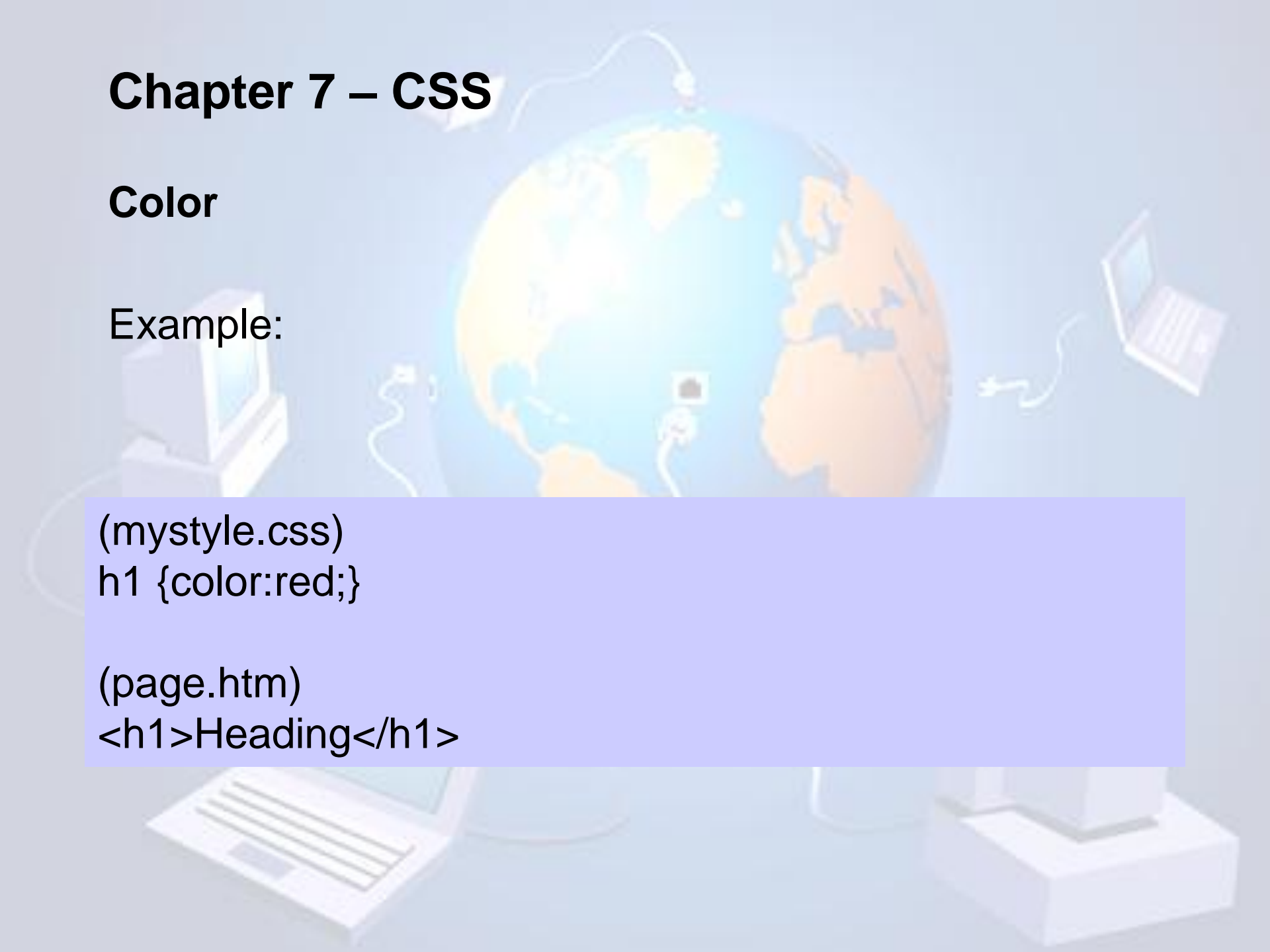
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Color

- The **color** property specifies the foreground color of an element.



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A central globe is shown with several computer cables plugged into it, symbolizing global connectivity. To the left is a desktop computer with a monitor and tower unit. To the right is a laptop. The background is a light blue gradient.

Color

Example:

```
(mystyle.css)  
h1 {color:red;}
```

```
(page.htm)  
<h1>Heading</h1>
```

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Background Color

- The **background-color** property specifies the background color of an element.



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Background Color

Example 1:

Page background color

(mystyle.css)

```
body {background-color:yellow;}
```

(page.htm)

```
<body>
```

```
</body>
```

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Background Color

Example 1:

Header background color

(mystyle.css)

```
h1 {background-color:red;}
```

(page.htm)

```
<h1>Heading</h1>
```

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Background Image

- The **background-image** property specifies an image to use as the background of an element.
- By default, the image is repeated so it covers the entire element.



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Background Image

Example:

(mystyle.css)

```
body {background-image:url('bg1.jpg');}
```

(page.htm)

```
<body>
```

```
</body>
```

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Repeat Background Image

- By default, the background-image property repeats an image both horizontally and vertically.
- The background-repeat property sets if/how a background image will be repeated.



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Repeat Background Image

Example 1: repeat-x (The image is repeated horizontally)

(mystyle.css)

```
body
{
background-image:url('bg1.gif');
Background-repeat:repeat-x;
}
```

(page.htm)

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

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Repeat Background Image

Example 2: repeat-y (The image is repeated vertically)

(mystyle.css)

```
body
{
background-image:url('bg1.gif');
Background-repeat:repeat-y;
}
```

(page.htm)

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

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Repeat Background Image

Example 3: no-repeat (The image is not repeated)

(mystyle.css)

```
body
{
background-image:url('bg1.gif');
Background-repeat:not-repeat;
}
```

(page.htm)

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

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Lock Background Image

- The background-attachment property specifies whether a background picture is fixed or scrolls along with the containing element.
- A fixed background image will not move with the text when a reader is scrolling the page, whereas an unlocked background image will scroll along with the text of the web page.

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Lock Background Image

Example:

(mystyle.css)

```
body
{
background-image:url('bg1.gif');
Background-attachment:fixed;
}
```

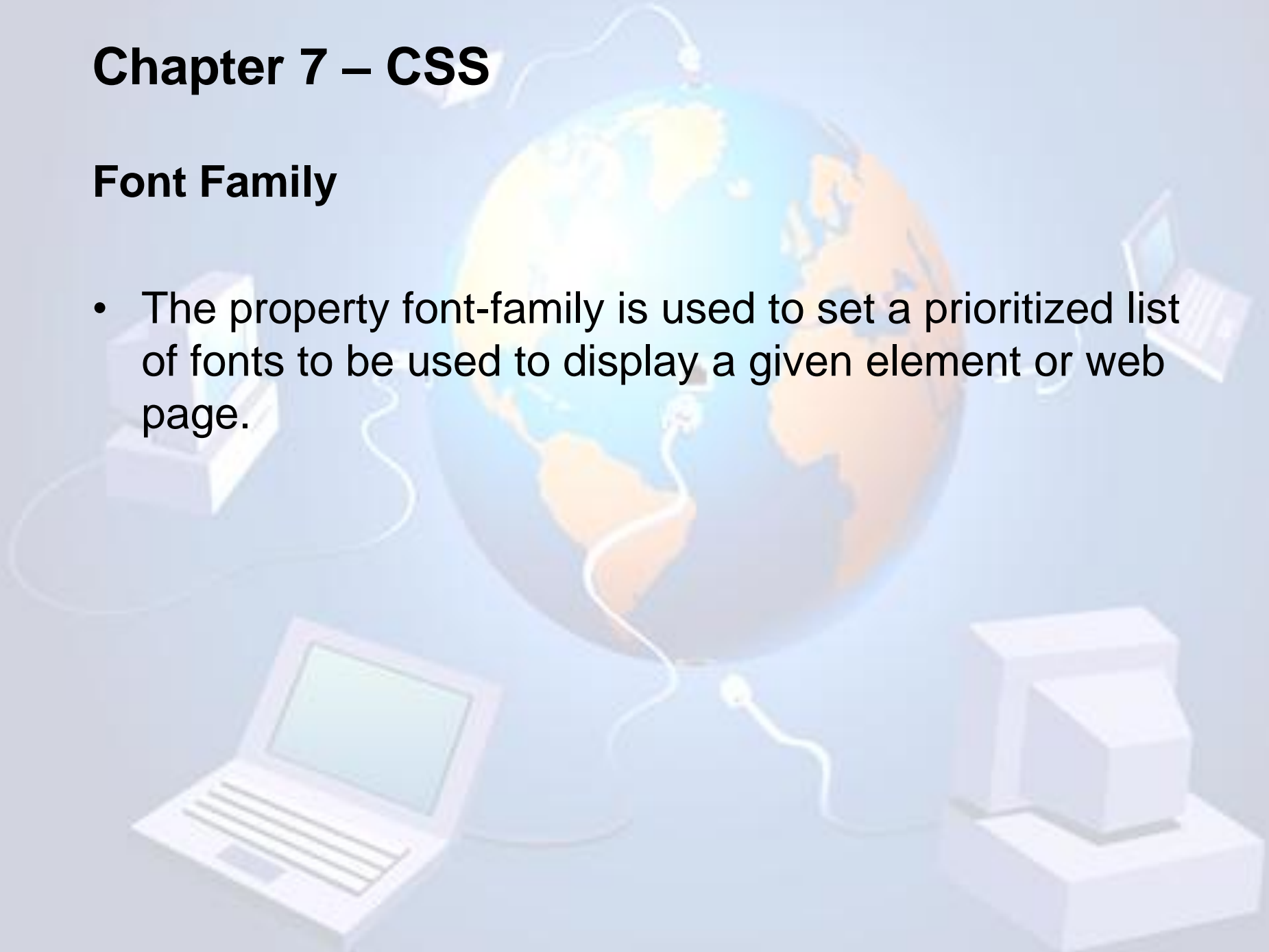
(page.htm)

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


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Font Family

- The property font-family is used to set a prioritized list of fonts to be used to display a given element or web page.



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Font Family

Example:

(mystyle.css)

```
font
{
font-family:arial;
}
```

(page.htm)

```
<body>
<font>Hello world!</font>
</body>
```

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Font Style

- The **font-style** property defines the chosen font.
- normal - The text is shown normally
- italic - The text is shown in italics
- oblique - The text is "leaning" (oblique is very similar to italic, but less supported)

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Font Style

Example:

(mystyle.css)

```
font
{
font-style:bold;
}
```

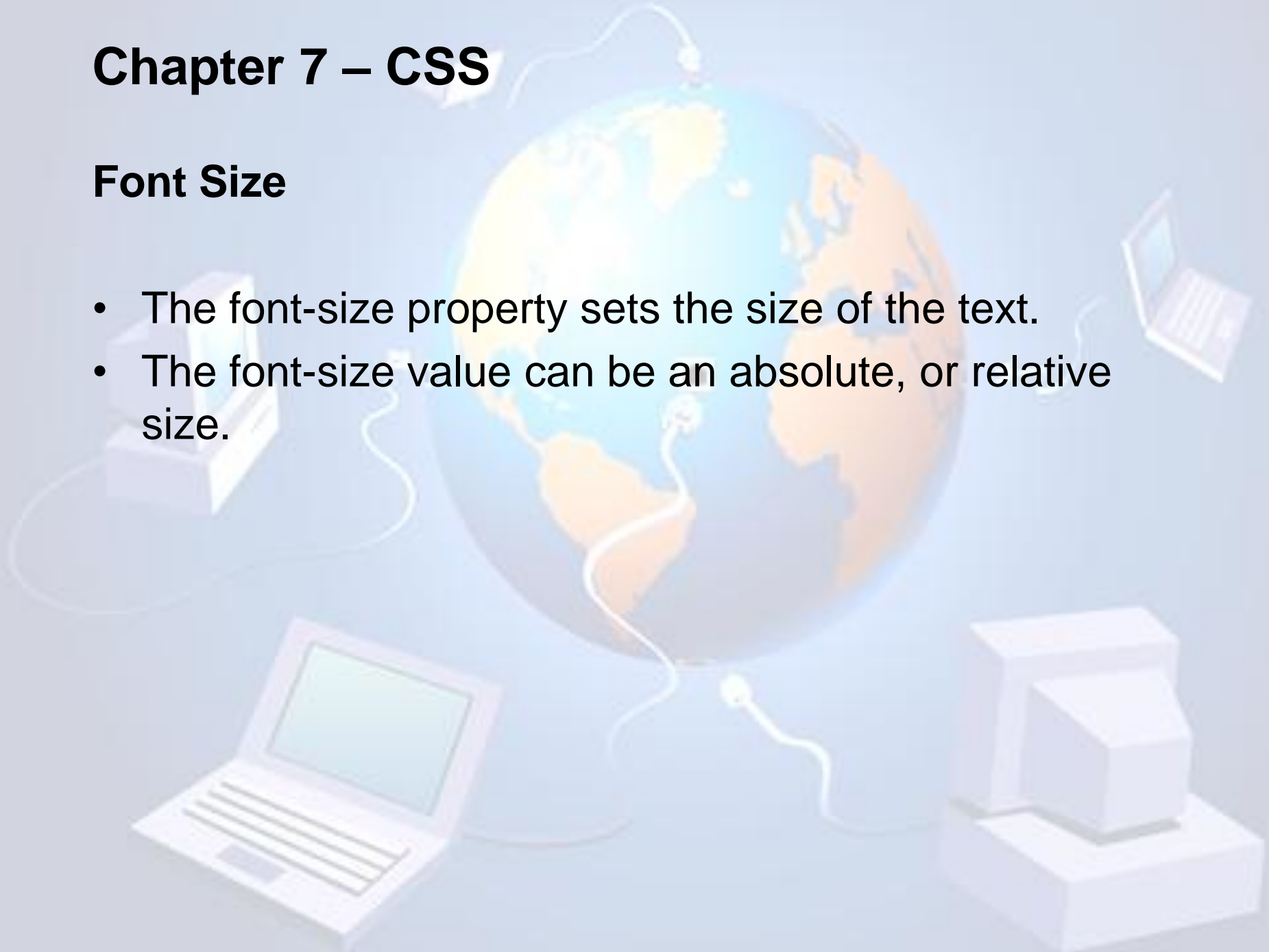
(page.htm)

```
<body>
<font>Hello world!</font>
</body>
```

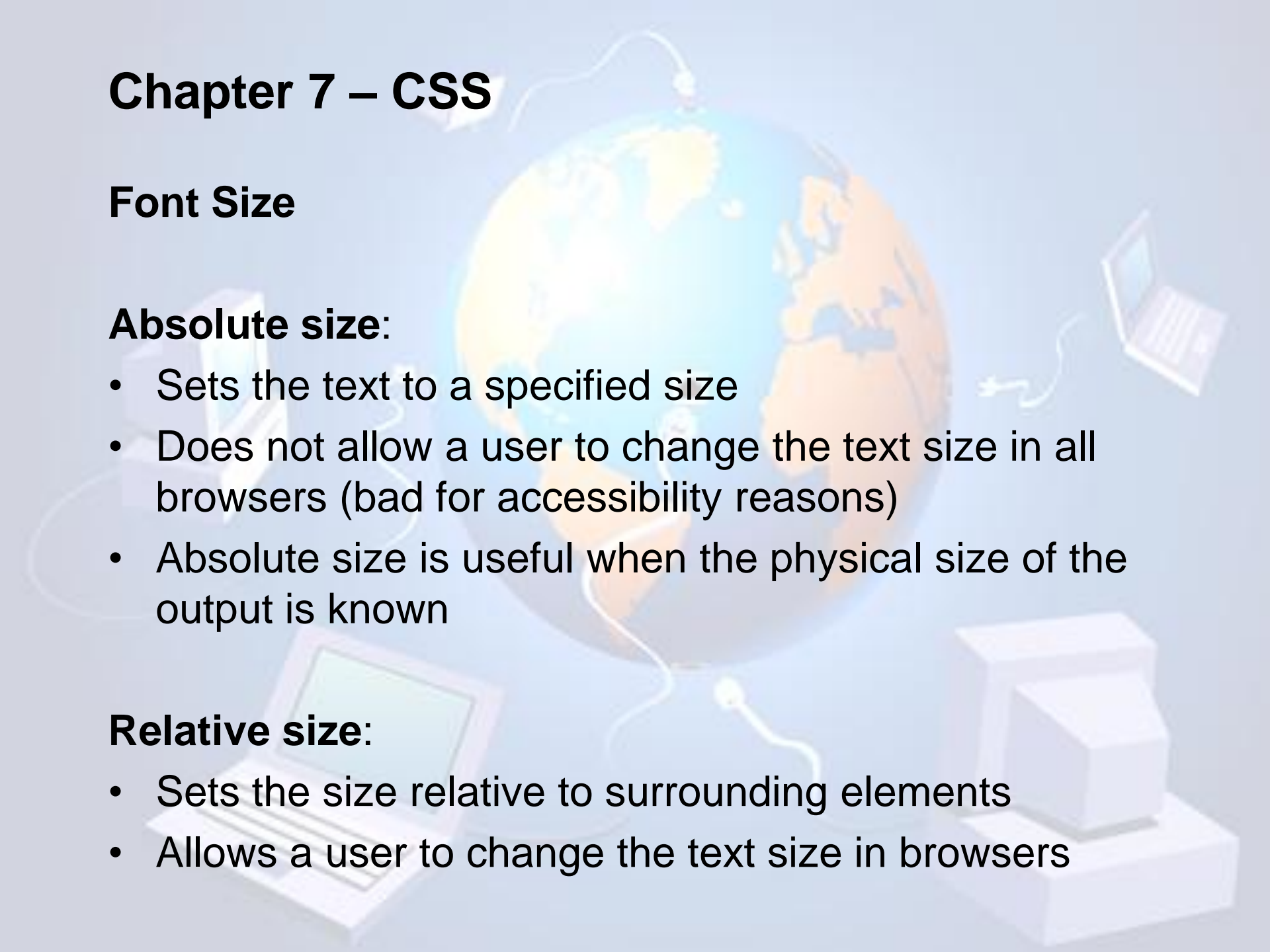
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Font Size

- The font-size property sets the size of the text.
- The font-size value can be an absolute, or relative size.



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Font Size

Absolute size:

- Sets the text to a specified size
- Does not allow a user to change the text size in all browsers (bad for accessibility reasons)
- Absolute size is useful when the physical size of the output is known

Relative size:

- Sets the size relative to surrounding elements
- Allows a user to change the text size in browsers

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Font Size

Example:

(mystyle.css)

```
font
{
font-size:24px;
}
```

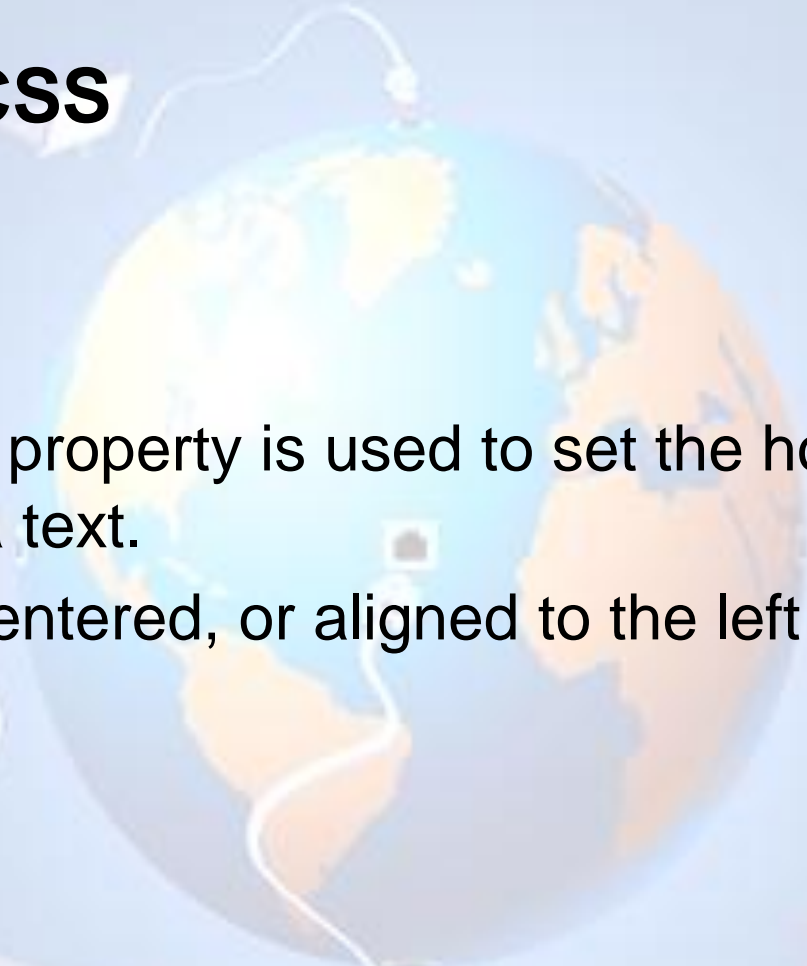
(page.htm)

```
<body>
<font>Hello world!</font>
</body>
```

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Text Alignment

- The text-align property is used to set the horizontal alignment of a text.
- Text can be centered, or aligned to the left or right, or justified.



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Text Alignment

Example:

(mystyle.css)

```
p
{
text-align:center;
}
```

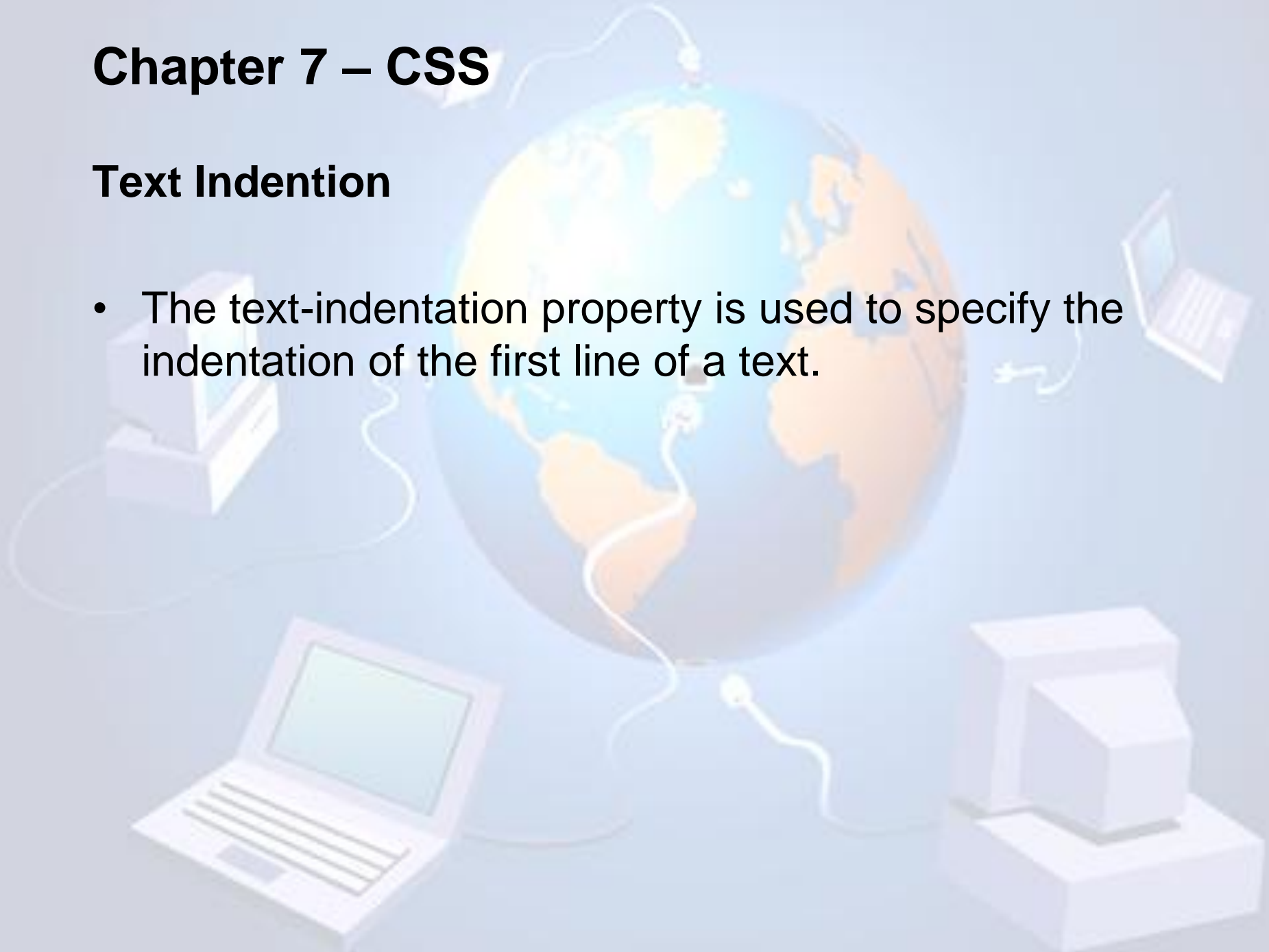
(page.htm)

```
<body>
<p>Hello world!</p>
</body>
```

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Text Indentation

- The text-indentation property is used to specify the indentation of the first line of a text.



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Text Indentation

Example:

(mystyle.css)

```
p
{
text-indent:50px;
}
```

(page.htm)

```
<body>
<p>Hello world!</p>
</body>
```

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Link

- Links can be styled with any CSS property (e.g. color, font-family, background, etc.).
- Special for links are that they can be styled differently depending on what state they are in.
- The four links states are:
 - a:link - a normal, unvisited link
 - a:visited - a link the user has visited
 - a:hover - a link when the user mouse over it
 - a:active - a link the moment it is clicked

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Link

Example:

(mystyle.css)

```
a:link {color:blue;} /* unvisited link */  
a:visited {color:purple;} /* visited link */  
a:hover {color:#FF00FF;} /* mouse over link */  
a:active {color:#0000FF;} /* selected link */
```

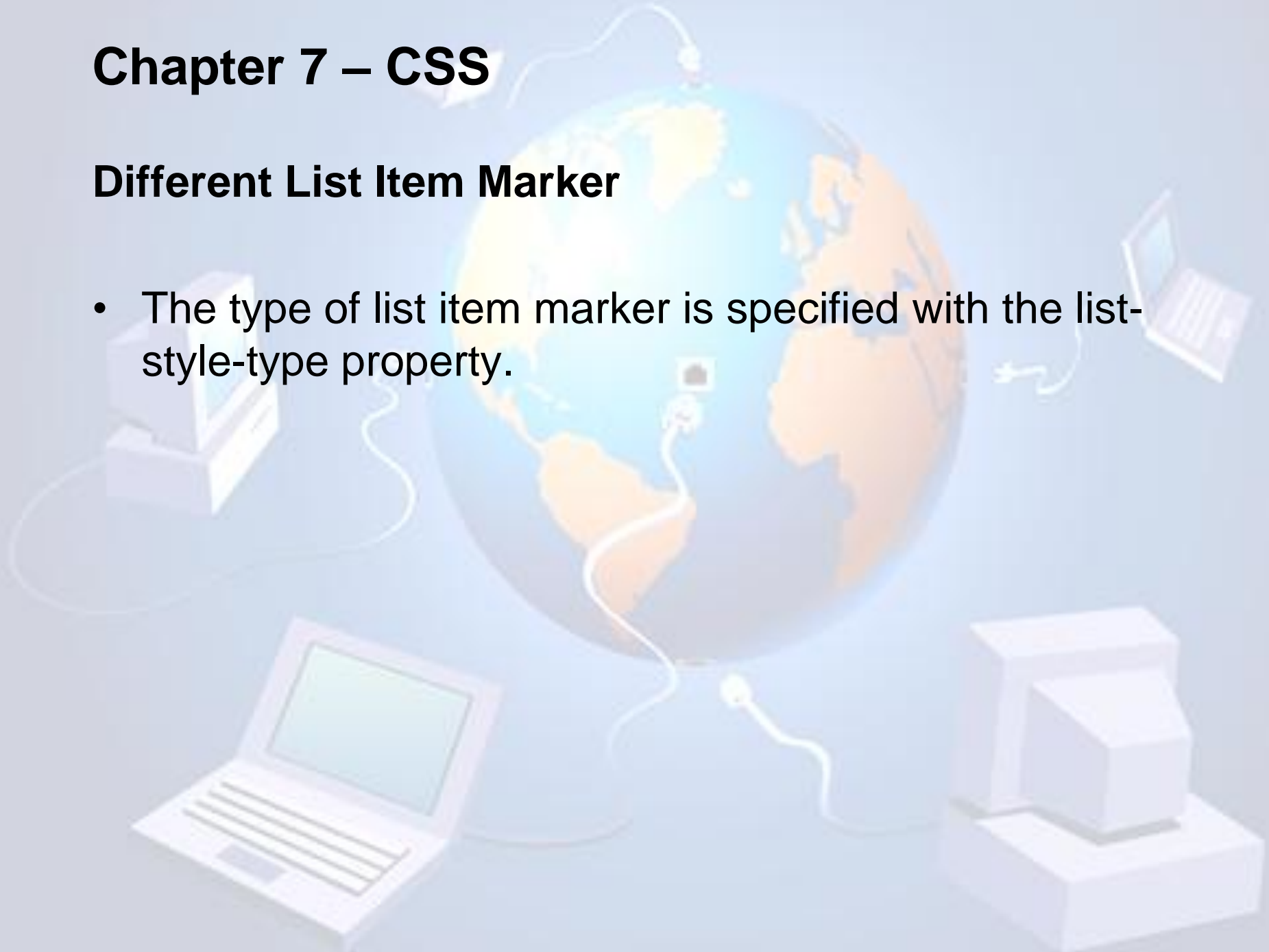
(page.htm)

```
<body>  
<a href='page.htm'>Page</a>  
</body>
```

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Different List Item Marker

- The type of list item marker is specified with the list-style-type property.



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Different List Item Marker

Example 1:

(mystyle.css)

```
ul
{
list-style-type:square;
}
```

(page.htm)

```
<body>
<ul>
<li>Item 1</li>
<li>Item 2</li>
</ul>
</body>
```

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Different List Item Marker

Example 2:

(mystyle.css)

```
ol
{
list-style-type:lower-alpha;
}
```

(page.htm)

```
<body>
<ol>
<li>Item 1</li>
<li>Item 2</li>
</ol>
</body>
```


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Image as List Item Marker

- To specify an image as the list item marker, use the `list-style-image` property



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Image as List Item Marker

Example:

(mystyle.css)

```
ul
{
list-style-
image:url('pic.gif');
}
```

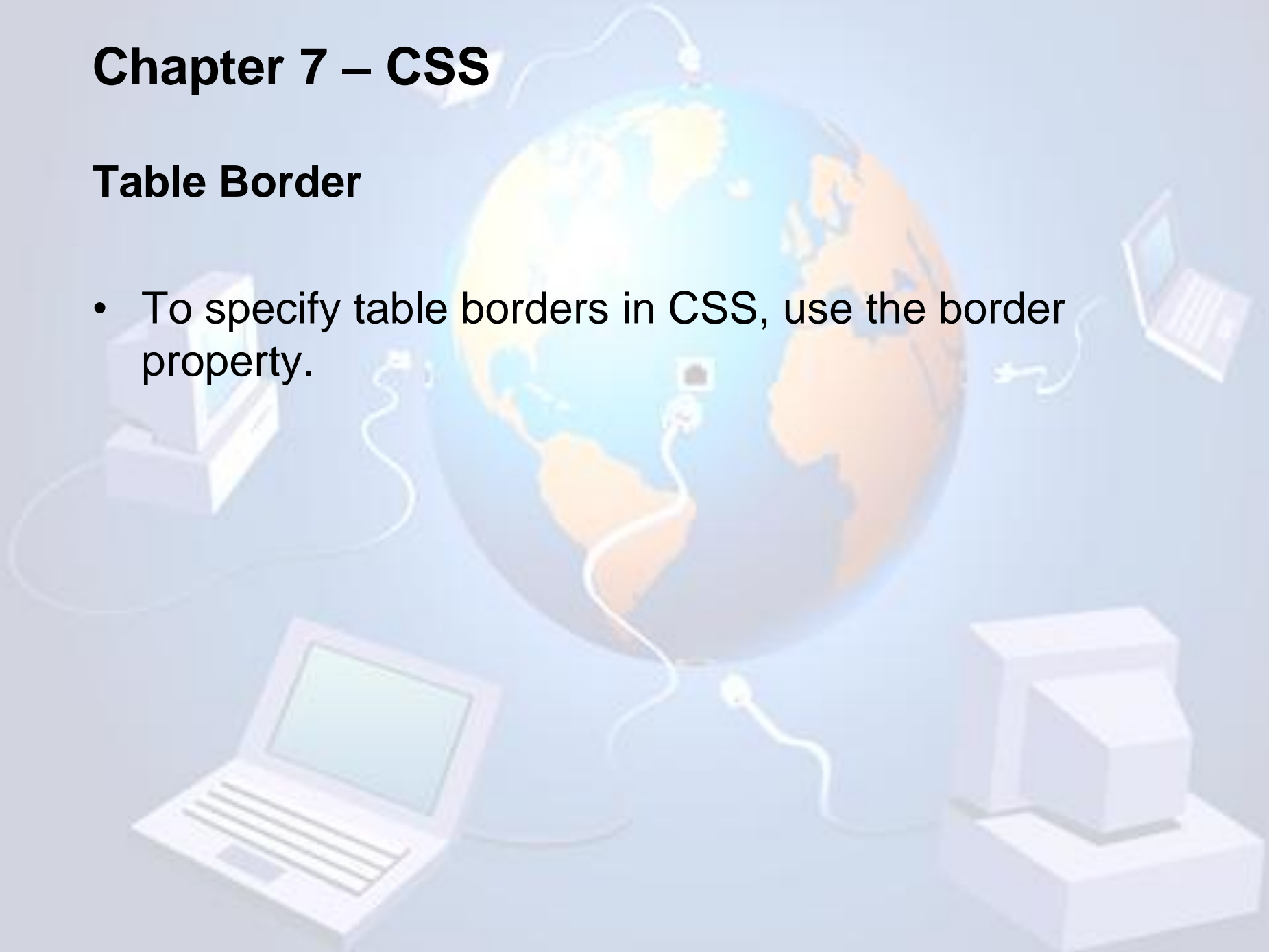
(page.htm)

```
<body>
<ul>
<li>Item 1</li>
<li>Item 2</li>
</ul>
</body>
```

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Table Border

- To specify table borders in CSS, use the border property.



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Table Border

Example:

(mystyle.css)

```
table, td  
{  
border:1px solid black;  
}
```

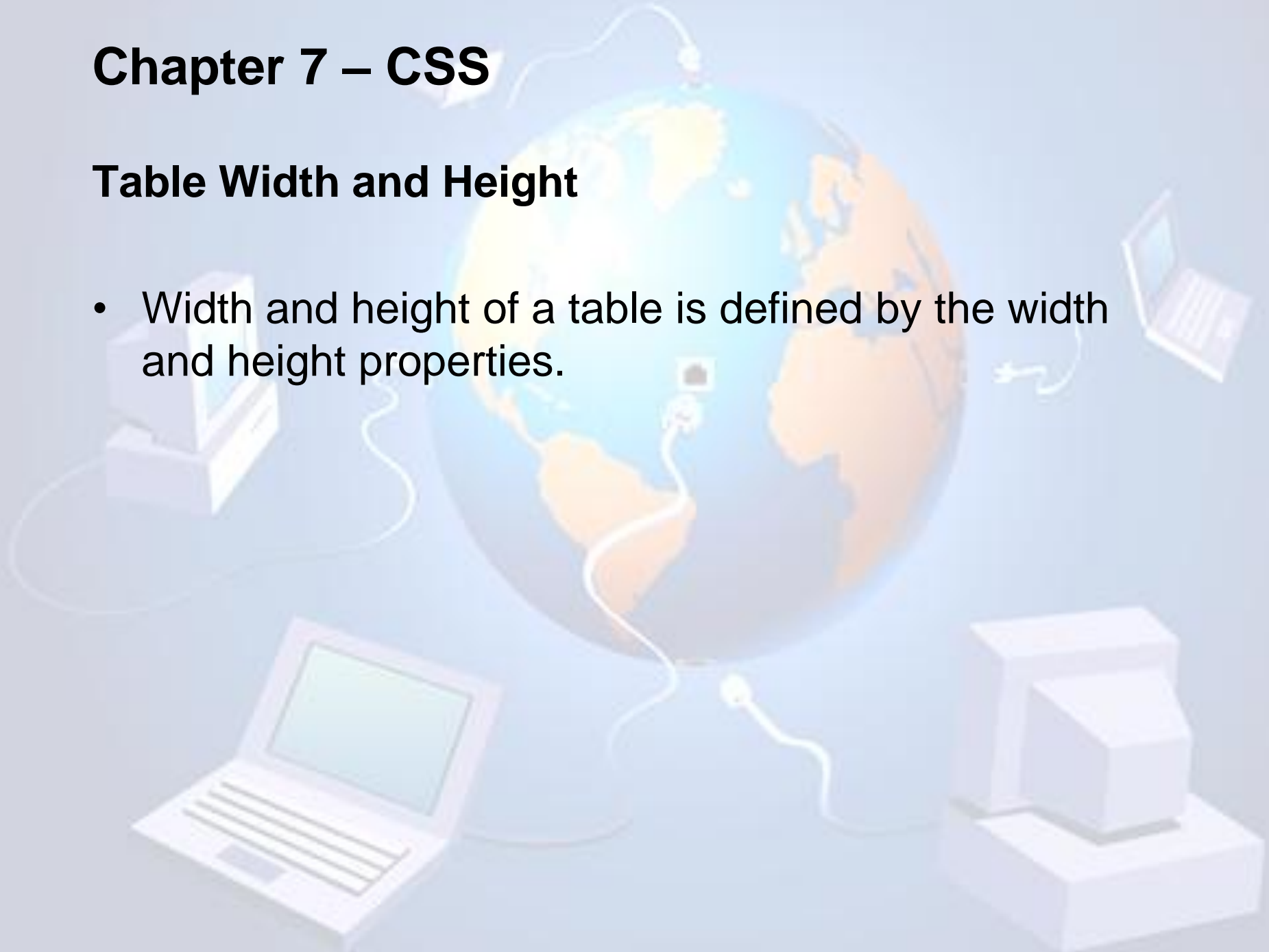
(page.htm)

```
<body>  
<table>  
<tr>  
<td>A</td>  
<td>B</td>  
</tr>  
</table>  
</body>
```

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Table Width and Height

- Width and height of a table is defined by the width and height properties.



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Table Width and Height

Example:

(mystyle.css)

```
td
{
width:100px;
height:200px;
}
```

(page.htm)

```
<body>
<table>
<tr>
<td>A</td>
<td>B</td>
</tr>
</table>
</body>
```

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Table Text Alignment

- The text in a table is aligned with the text-align and vertical-align properties.
- The text-align property sets the horizontal alignment, like left, right, or center.
- The vertical-align property sets the vertical alignment, like top, bottom, or middle.

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Table Text Alignment

Example:

(mystyle.css)

```
td
{
width:300px;
height:200px;
text-align:center;
vertical-align:top;
}
```

(page.htm)

```
<body>
<table>
<tr>
<td>A</td>
<td>B</td>
</tr>
</table>
</body>
```