CONTENTS

INTRODUCTION

CSS is a Stylesheet language that describes the presentation of an HTML (or XML) document.

CSS describes how elements must be rendered on screen, on paper, or in other media.

CSS is used to control the style of a web document in a simple and easy way.

CSS Syntax

A CSS rule-set consists of a selector and a declaration block:

The selector points to the HTML element you want to style.

The declaration block contains one or more declarations separated by semicolons.

Each declaration includes a CSS property name and a value, separated by a colon.

A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
color: red;
text-align: center;
}
</style>
</head>
<body>
<p>Hello World!</p>
<p>This paragraph is styled with CSS.</p>
</body>
</html>
```

CSS Selectors

CSS selectors are used to "find" or "select" HTML elements based on their element name, id, class, attribute, and more.

The element Selector

The element selector selects elements based on the element name.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
text-align: center;
color: red;
}
</style></head>
<body>
<p>Every paragraph will be affected by the style.</p>
<p id="para1">Me too!</p>
<p>And me!</p>
</body></html>
```

O/P-

Every paragraph will be affected by the style.

Me too!

And me!

The id Selector

The id selector uses the id attribute of an HTML element to select a specific element.

The id of an element should be unique within a page, so the id selector is used to select one unique element!

To select an element with a specific id, write a hash (#) character, followed by the id of the element.

Example

```
<!DOCTYPE html>

<html>

<head>

<style>

#para1 {

text-align: center;

color: red;

}
```

</style>

</head>

<body>

<p id="para1">Hello World!</p>

<p>This paragraph is not affected by the style.</p>

</body>

</html>

O/P-

Hello World!

This paragraph is not affected by the style.

The class Selector

The class selector selects elements with a specific class attribute.

To select elements with a specific class, write a period (.) character, followed by the name of the class.

In the example below, all HTML elements with class="center" will be red and center-aligned:

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
.center {
text-align: center;
color: red;
}
</style>
</head>
<body>
<h1 class="center">Red and center-aligned heading</h1>
<p class="center">Red and center-aligned paragraph.</p>
</body>
</html>
```

o/p-

Red and center-aligned heading

Red and center-aligned paragraph.

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

In the example below, only <p> elements with class="center" will be center-aligned:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.center {
text-align: center;
color: red;
}
</style>
</head>
<body>
<h1 class="center">This heading will not be affected</h1>
<p class="center">This paragraph will be red and center- aligned.</p>
</body></html>
```

o/p-

This heading will not be affected

This paragraph will be red and center-aligned.

HTML elements can also refer to more than one class.

Grouping Selectors

If you have elements with the same style definitions, like this:

h1 {

text-align: center; color: red; }

h2 {

text-align: center; color: red; }

p {

text-align: center; color: red; }

It will be better to group the selectors, to minimize the code.

To group selectors, separate each selector with a comma.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
h1, h2, p {
text-align: center;
color: red;
}
</style>
</head>
<body>
<h1>Hello World!</h1>
<h2>Smaller heading!</h2>
<p>This is a paragraph.</p>
</body>
</html>
```

O/P-

Hello World!

Smaller heading!

This is a paragraph.

CSS Comments

Comments are used to explain the code, and may help when you edit the source code at a later date.

Comments are ignored by browsers.

A CSS comment starts with /* and ends with */. Comments can also span multiple lines:

<!DOCTYPE html>

<html>

<head>

<style>

p {

color: red;

/* This is a single-line comment */

text-align: center;

```
}
/* This is
a multi-line
comment */
</style>
</head>
<body>
<p>Hello World!</p>
<p>This paragraph is styled with CSS.</p>
<p>CSS comments are not shown in the output.</p>
</body>
</html>
```

o/p-

Hello World!

This paragraph is styled with CSS.

CSS comments are not shown in the output.

TYPES OF CSS

1 External

2 Internal

3 Inline

External CSS

With an external style sheet, you can change the look of an entire website by changing just one file.

Each page must include a reference to the external style sheet file inside the <link> element. The <link> element goes inside the <head> section.

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

Example

<!DOCTYPE html>

<html>

<head>

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

</head>

```
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

o/p-

This is a heading

This is a paragraph.

Internal Style Sheet

An internal style sheet may be used if one single page has a unique style.

Internal styles are defined within the <style> element, inside the <head> section of an HTML page.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
```

```
background-color: linen;
}
h1 {
color: maroon;
margin-left: 40px;
}
</style>
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

o/p-

This is a heading

This is a paragraph.

Inline Styles

An inline style may be used to apply a unique style for a single element.

To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

The example below shows how to change the color and the left margin of a <h1> element.

<!DOCTYPE html>

<html>

<body>

<h1 style="color:blue;margin-left:30px;">This is a heading.</h1>

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

</body>

</html>

o/p-

This is a heading.

This is a paragraph.

Multiple Style Sheets

If some properties have been defined for the same selector (element) in different style sheets, the value from the last read style sheet will be used.

Example

Assume that an external style sheet has the following style for the <h1> element:

h1 {

    color: navy; }

then, assume that an internal style sheet also has the following style for the <h1> element:

h1 {

    color: orange; }

If the internal style is defined after the link to the external style sheet, the <h1> elements will be "orange":

<!DOCTYPE html>

<html>

<head>

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

<style>

```
h1 {
color: orange;
}
</style>
</head>
<body>
<h1>This is a heading</h1>
<p>The style of this document is a combination of an external stylesheet, and
internal style</p>
</body>
</html>
```

o/p-

<h1 style="color:orange">This is a heading</h1>

The style of this document is a combination of an external stylesheet, and internal style

However, if the internal style is defined before the link to the external style sheet, the <h1> elements will be "navy":

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

```
<style>
h1 {
color: orange;
}
</style>
<link rel="stylesheet" type="text/css" href="mystyle.css">
</head>
<body>
<h1>This is a heading</h1>
<p>The style of this document is a combination of an external stylesheet, and internal style</p>
</body>
</html>
```

o/p-

This is a heading

The style of this document is a combination of an external stylesheet, and internal style

CSS Colors

Colors are displayed combining RED, GREEN, and BLUE light.

Colors in CSS are most often specified by:

- a valid color name - like "red"

- an RGB value - like "rgb(255, 0, 0)"

- a HEX value - like "#ff0000"

Example

<!DOCTYPE html>

<html><body>

<h2>RGB Color Examples</h2>

<h2 style="background-color:rgb(255, 0, 0)">

Background-color set by using rgb(255, 0, 0)

</h2>

<h2 style="background-color:rgb(0, 255, 0)">

Background-color set by using rgb(0, 255, 0)

</h2>

<h2 style="background-color:rgb(0, 0, 255)">

Background-color set by using rgb(0, 0, 255)

</h2>

<h2 style="background-color:rgb(255, 165, 0)">

Background-color set by using rgb(255, 165, 0)

</h2>

<h2 style="background-color:rgb(255, 255, 0)">

Background-color set by using rgb(255, 255, 0)

</h2>

<h2 style="background-color:rgb(0, 255, 255)">

Background-color set by using rgb(0, 255, 255)

</h2>

</body></html>

o/p-

Background-color set by using rgb(255, 0, 0)

Background-color set by using rgb(0, 255, 0)

Background-color set by using rgb(0, 0, 255)

Background-color set by using rgb(255, 165, 0)

Background-color set by using rgb(255, 255, 0)

Background-color set by using rgb(0, 255, 255)

CSS Backgrounds

The CSS Background properties are used to define the background effects for elements.

CSS Background properties:

• background-color

• background-image

• background-repeat

• background-attachment

• background-position

Background Color

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

Example

```
<!DOCTYPE html>
<html><head><style>
body {
background-color: lightblue;
```

```
}
</style>
</head>
<body>
<h1>Hello World!</h1>
<p>This page has a background color!</p>
</body>
</html>
```

o/p-

Hello World!

This page has a background color!

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.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
background-image: url("paper.gif");
}
</style>
</head>
<body>
<h1>Hello World!</h1>
<p>This page has an image as the background!</p>
</body></html>
```

o/p-

Hello World!

This page has an image as the background!

All CSS Background Properties

Property Description

background Sets all the background properties in one declaration

background-attachment Sets whether a background image is fixed or scrolls with the res

background-color Sets the background color of an element

background-image Sets the background image for an element

background-position Sets the starting position of a background image

background-repeat Sets how a background image will be repeated

CSS Borders

The CSS border properties allow you to specify the style, width, and color of an element's border. Border Style

The border-style property specifies what kind of border to display.

The following values are allowed:

- dotted - Defines a dotted border

- dashed - Defines a dashed border

- solid - Defines a solid border

- double - Defines a double border

- groove - Defines a 3D grooved border. The effect depends on the border-color value

- ridge - Defines a 3D ridged border. The effect depends on the border-color value

- inset - Defines a 3D inset border. The effect depends on the border-color value

- outset - Defines a 3D outset border. The effect depends on the border-color value

- none - Defines no border

- hidden - Defines a hidden border

The border-style property can have from one to four values (for the top border, right border, bottom border, and the left border).

Example

p.dotted {border-style: dotted;} p.dashed {border-style: dashed;} p.solid {border-style: solid;} p.double {border-style: double;} p.none {border-style: none;} p.hidden {border-style: hidden;} p.mix {border-style: dotted dashed solid double;}

o/p-

A dotted border.

A dashed border.

A solid border.

A double border.

No border.

A hidden border.

A mixed border.

Border Width

The border-width property specifies the width of the four borders.

The width can be set as a specific size (in px, pt, cm, em, etc) or by using one of the three pre-defined values: thin, medium, or thick.

The border-width property can have from one to four values (for the top border, right border, bottom border, and the left border).

Example

<!DOCTYPE html>

<html>

<head>

<style>

p.one {

border-style: solid;

border-width: 5px;

}

p.two {

border-style: solid;

border-width: medium;

```css
}
p.three {
border-style: dotted;
border-width: 2px;
}
p.four {
border-style: dotted;
border-width: thick;
}
p.five {
border-style: double;
border-width: 15px;
}
p.six {
border-style: double;
border-width: thick;
}
p.seven {
border-style: solid;
```

```
border-width: 2px 10px 4px 20px;
}
</style>
</head>
<body>
<h2>The border-width Property</h2>
<p>This property specifies the width of the four borders:</p>
<p class="one">Some text.</p>
<p class="two">Some text.</p>
<p class="three">Some text.</p>
<p class="four">Some text.</p>
<p class="five">Some text.</p>
<p class="six">Some text.</p>
<p class="seven">Some text.</p>
<p><b>Note:</b> The "border-width" property does not work if it is used alone.
Always specify the "border-style" property to set the borders first.</p>
</body>
</html>
```

o/p-

The border-width Property

This property specifies the width of the four borders:

Some text.

Some text.

Some text.

Some text.

Some text.

Some text.

Some text.

Note: The "border-width" property does not work if it is used alone. Always specify the "border-style" property to set the borders first.

Border Color

The border-color property is used to set the color of the four borders.

The color can be set by:

- name - specify a color name, like "red"

- Hex - specify a hex value, like "#ff0000"

- RGB - specify a RGB value, like "rgb(255,0,0)"

- transparent

The border-color property can have from one to four values (for the top border, right border, bottom border, and the left border).

If border-color is not set, it inherits the color of the element.

Example-

<!DOCTYPE html>

<html>

<head>

<style>

p.one {

border-style: solid;

border-color: red;

```
}
p.two {
border-style: solid;
border-color: green;
}
p.three {
border-style: solid;
border-color: red green blue yellow;
}
</style></head>
<body>
<h2>The border-color Property</h2>
<p>This property specifies the color of the four borders:</p>
<p class="one">A solid red border</p>
<p class="two">A solid green border</p>
<p class="three">A solid multicolor border</p>
<p><b>Note:</b> The "border-color" property does not work if it is used alone.
Use the "border-style" property to set the borders first.</p></body>
</html>
```

o/p-

The border-color Property

This property specifies the color of the four borders:

A solid red border

A solid green border

A solid multicolor border

Note: The "border-color" property does not work if it is used alone. Use the "border- style" property to set the borders first.

CSS Margins

The CSS margin properties set the size of the white space OUTSIDE the border.

With CSS, you have full control over the margins. There are CSS properties for setting the margin for each side of an element (top, right, bottom, and left).

The CSS margin properties are used to generate space around elements.

Margin - Individual Sides

CSS has properties for specifying the margin for each side of an element:

- margin-top

- margin-right

- margin-bottom

- margin-left

All the margin properties can have the following values:

- auto - the browser calculates the margin

- length - specifies a margin in px, pt, cm, etc.

- % - specifies a margin in % of the width of the containing element

- inherit - specifies that the margin should be inherited from the parent element

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
background-color: yellow;
}
```

```
p.ex {
border:1px solid red;
margin-top: 100px;
margin-bottom: 100px;
margin-right: 150px;
margin-left: 80px;
}
</style>
</head>
<body>
<h2>Using Individual margin Properties:</h2>
<p>This is a paragraph with no specified margins.</p><p class="ex">This
paragraph has a top and bottom margin of 100px, a left margin of 80px, and a right
margin of 150px.</p>
</body></html>
```

o/p-

Using Individual margin Properties:

This is a paragraph with no specified margins.

This paragraph has a top and bottom margin of 100px, a left margin of 80px, and a right margin of 150px.

CSS Padding

The CSS padding properties define the white space between the element content and the element border.

The padding clears an area around the content (inside the border) of an element.

With CSS, you have full control over the padding. There are CSS properties for setting the padding for each side of an element (top, right, bottom, and left).

Padding - Individual Sides

CSS has properties for specifying the padding for each side of an element:

·

padding-top

·

padding-right

·

padding-bottom

·

padding-left

All the padding properties can have the following values:

·

length - specifies a padding in px, pt, cm, etc.

·

% - specifies a padding in % of the width of the containing element

·

inherit - specifies that the padding should be inherited from the parent element

The following example sets different padding for all four sides of a <p> element:

<!DOCTYPE html>

<html>

<head>

<style>

p.one {

border: 1px solid red;

```
background-color: yellow;

padding-top: 50px;

padding-right: 30px;

padding-bottom: 50px;

padding-left: 80px;

}
</style>
</head>
<body>
<h2>Using Individual padding Properties:</h2>
<p>This is a paragraph with no specified padding.</p>
<p class="one">This paragraph has a top and bottom padding of 50px, a left
padding of 80px, and a right padding of 30px.</p>
</body>
</html>
```

o/p-

Using Individual padding Properties:

This is a paragraph with no specified padding.

This paragraph has a top and bottom padding of 50px, a left padding of 80px, and a right padding of 30px.

All CSS Padding Properties

Property Description

padding A shorthand property for setting all the padding properties in one

padding-bottom Sets the bottom padding of an element

padding-left Sets the left padding of an element

padding-right Sets the right padding of an element

padding-top Sets the top padding of an element

CSS Height and Width Dimensions

The CSS dimension properties allow you to control the height and width of an element.

This element has a width of 100%.

Setting height and width

The height and width properties are used to set the height and width of an element.

The height and width can be set to auto (this is default. Means that the browser calculates the height and width), or be specified in length values, like px, cm, etc., or in percent (%) of the containing block.

This <div> element has a height of 100 pixels and a width of 500 pixels.

The following example shows a <div> element with a height of 100 pixels and a width of 500 pixels

```html
<!DOCTYPE html>
<html>
<head>
<style>
div {
width: 500px;
height: 100px;
border: 3px solid #73AD21;
}
</style>
</head>
<body>
<h2>Set height and width of an Element:</h2>
<div>
This div element has a height of 100px and a width of 500px.
</div>
</body>
</html>
```

o/p-

Set height and width of an Element:

This div element has a height of 100px and a width of 500px.

CSS Text

This text is styled with some of the text formatting properties. The heading uses the text-align, text-transform, and color properties . Text Color

The color property is used to set the color of the text.

With CSS, a color is most often specified by:

- a color name - like "red"

- a HEX value - like "#ff0000"

- an RGB value - like "rgb(255,0,0)"

The default text color for a page is defined in the body selector.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
color: blue;
}
```

```
h1 {
color: green;
}
</style>
</head>
<body>
<h1>This is heading 1</h1>
<p>This is an ordinary paragraph. Notice that this text is blue. The default text color for a page is defined in the body selector.</p>
</body></html>
```

o/p-

This is heading 1

This is an ordinary paragraph. Notice that this text is blue. The default text color for a page is defined in the body selector.

Text Alignment

The text-align property is used to set the horizontal alignment of a text.

A text can be left or right aligned, centered, or justified.

The following example shows center aligned, and left and right aligned text :

<!DOCTYPE html>

<html>

<head>

<style>

h1 {

text-align: center;

}

h2 {

text-align: left;

}

h3 {

text-align: right;

```
}
</style>
</head>
<body>
<h1>Heading 1 (center)</h1>
<h2>Heading 2 (left)</h2>
<h3>Heading 3 (right)</h3>
<p>The three headings above are aligned center, left and right.</p>
</body>
</html>
```

o/p-

Heading 1 (center)

Heading 2 (left)

Heading 3 (right)

The three headings above are aligned center, left and right.

Text Decoration

The text-decoration property is used to set or remove decorations from text.

The value text-decoration: none; is often used to remove underlines from links:

```
<!DOCTYPE html>

<html>

<head>

<style>

a {

text-decoration: none;

}

</style>

</head>

<body>

<p>A link with no underline: <a href="http://www. cybernauttech .com">
cybernauttech .com</a></p>

</body>

</html>
```

o/p-

A link with no underline: cybernauttech.com

Text Transformation

The text-transform property is used to specify uppercase and lowercase letters in a text.

It can be used to turn everything into uppercase or lowercase letters, or capitalize the first letter of each word:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.uppercase {
text-transform: uppercase;
}
p.lowercase {
text-transform: lowercase;
}
```

```
p.capitalize {
text-transform: capitalize;
}
</style>
</head>
<body>
<p class="uppercase">This is some text.</p>
<p class="lowercase">This is some text.</p>
<p class="capitalize">This is some text.</p>
</body>
</html>
```

o/p-

THIS IS SOME TEXT.

this is some text.

This Is Some Text.

Text Indentation

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

<!DOCTYPE html>

<html>

<head>

<style>

p {

text-indent: 50px;

}

</style>

</head>

<body>

<p>In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.'</p>

</body>

</html>

o/p-

In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.'

Letter Spacing

The letter-spacing property is used to specify the space between the characters in a text.

The following example demonstrates how to increase or decrease the space between characters:

```
<!DOCTYPE html>

<html>

<head>

<style>

h1 {

letter-spacing: 3px;

}

h2 {

letter-spacing: -3px;

}

</style>
```

```
</head>
<body>
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
</body>
</html>
```

o/p-

This is heading 1

This is heading 2

Line Height

The line-height property is used to specify the space between lines:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.small {
line-height: 0.7;
```

```
}
p.big {
line-height: 1.8;
}
</style>
</head>
<body>
<p>
This is a paragraph with a standard line-height.<br>
The default line height in most browsers is about 110% to 120%.<br>
</p>
<p class="small">
This is a paragraph with a smaller line-height.<br>
This is a paragraph with a smaller line-height.<br>
</p>
<p class="big">
This is a paragraph with a bigger line-height.<br>
This is a paragraph with a bigger line-height.<br>
```

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

o/p-

This is a paragraph with a standard line-height. The default line height in most browsers is about 110% to 120%. This is a paragraph with a smaller line-height. This is a paragraph with a smaller line-height.

This is a paragraph with a bigger line-height. This is a paragraph with a bigger line-height.

Word Spacing

The word-spacing property is used to specify the space between the words in a text.

The following example demonstrates how to increase or decrease the space between words:

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
word-spacing: 10px;
}
```

```
h2 {
word-spacing: -5px;
}
</style>
</head>
<body>
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
</body>
</html>
```

o/p-

This is heading 1

This is heading 2

Text Direction

The direction property is used to change the text direction of an element:

<!DOCTYPE html>

<html>

<head>

<style>

div.ex1 {

direction: rtl;

}

</style>

</head>

<body>

<div>This is default text direction.</div>

<div class="ex1">This is right-to-left text direction.</div>

</body></html>

o/p-

This is default text direction.

This is right-to-left text direction.

All CSS Text Properties

Property Description

color Sets the color of text

direction Specifies the text direction/writing direction

letter-spacing Increases or decreases the space between characters in a text

line-height Sets the line height

text-align Specifies the horizontal alignment of text

text-decoration Specifies the decoration added to text

text-indent Specifies the indentation of the first line in a text-block

text-shadow Specifies the shadow effect added to text

text-transform Controls the capitalization of text

unicode-bidi Used together with the direction property to set or return whether the text s

overridden to support multiple languages in the same document

vertical-align Sets the vertical alignment of an element

white-space Specifies how white-space inside an element is handled

word-spacing Increases or decreases the space between words in a text

CSS Fonts

The CSS font properties define the font family, boldness, size, and the style of a text.

Font Family

The font family of a text is set with the font-family property.

The font-family property should hold several font names as a "fallback" system. If the browser does not support the first font, it tries the next font, and so on.

Start with the font you want, and end with a generic family, to let the browser pick a similar font in the generic family, if no other fonts are available.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
p.serif {
font-family: "Times New Roman", Times, serif;
}
```

```
p.sansserif {
font-family: Arial, Helvetica, sans-serif;
}
</style>
</head>
<body>
<h1>CSS font-family</h1>
<p class="serif">This is a paragraph, shown in the Times New Roman font.</p>
<p class="sansserif">This is a paragraph, shown in the Arial font.</p>
</body>
</html>
```
o/p-

CSS font-family

This is a paragraph, shown in the Times New Roman font.

This is a paragraph, shown in the Arial font.

Font Style

The font-style property is mostly used to specify italic text.

This property has three values:

- 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)

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
p.normal {
font-style: normal;
}
p.italic {
font-style: italic;
}
```

```
p.oblique {
font-style: oblique;
}
</style>
</head>
<body>
<p class="normal">This is a paragraph in normal style.</p>
<p class="italic">This is a paragraph in italic style.</p>
<p class="oblique">This is a paragraph in oblique style.</p>
</body>
</html>
```

o/p-

This is a paragraph in normal style.

This is a paragraph in italic style.

This is a paragraph in oblique style.

Font Size

The font-size property sets the size of the text.

Being able to manage the text size is important in web design. However, you should not use font size adjustments to make paragraphs look like headings, or headings look like paragraphs.

Always use the proper HTML tags, like <h1> - <h6> for headings and <p> for paragraphs.

The font-size value can be an absolute, or relative 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

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
font-size: 40px;
}
h2 {
font-size: 30px;
}
p {
font-size: 14px;
}
</style>
</head>
<body>
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
```

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

\<p\>This is another paragraph.\</p\>

\</body\>

\</html\>

o/p

This is heading 1

This is heading 2

This is a paragraph.

This is another paragraph.

All CSS Font Properties

Property Description

font Sets all the font properties in one declaration

font-family Specifies the font family for text

font-size Specifies the font size of text

font-style Specifies the font style for text

font-variant Specifies whether or not a text should be displayed in a small-caps fon

font-weight Specifies the weight of a font

CSS Links

With CSS, links can be styled in different ways.

Text Link Text Link Link Button Link Button

Styling Links

Links can be styled with any CSS property (e.g. color, font- family, background, etc.).

Example

<!DOCTYPE html>

<html>

<head>

<style>

a {

color: hotpink;

}

```
</style>
</head>
<body>
<p><b><a href="default.asp" target="_blank">This is a link</a></b></p>
</body></html>
```

o/p-

This is a link

In addition, links 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

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
/* unvisited link */
```

```css
a:link {
color: red;
}
/* visited link */
a:visited {
color: green;
}
/* mouse over link */
a:hover {
color: hotpink;
}
/* selected link */
a:active {
color: blue;
}
</style>
```

</head>

<body>

<p>This is a link</p>

<p>Note: a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.</p>

<p>Note: a:active MUST come after a:hover in the CSS definition in order to be effective.</p>

</body>

</html>

o/p-

This is a link

Note: a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.

Note: a:active MUST come after a:hover in the CSS definition in order to be effective.

Text Decoration

The text-decoration property is mostly used to remove underlines from links:

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
a:link {
text-decoration: none;
}
a:visited {
text-decoration: none;
}
a:hover {
text-decoration: underline;
}
a:active {
text-decoration: underline;
```

```
}
</style>
</head><body>
<p><b><a href="default.asp" target="_blank">This is a link</a></b></p>
<p><b>Note:</b> a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.</p>
<p><b>Note:</b> a:active MUST come after a:hover in the CSS definition in order to be effective.</p>
</body>
</html>
```

o/p-

This is a link

Note: a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.

Note: a:active MUST come after a:hover in the CSS definition in order to be effective.

Background Color

The background-color property can be used to specify a background color for links:

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
a:link {
background-color: yellow;
}
a:visited {
background-color: cyan;
}
a:hover {
background-color: lightgreen;
```

```
}
a:active {
background-color: hotpink;
}
</style>
</head>
<body>
<p><b><a href="default.asp" target="_blank">This is a link</a></b></p>
<p><b>Note:</b> a:hover MUST come after a:link and a:visited in the CSS
definition in order to be effective.</p>
<p><b>Note:</b> a:active MUST come after a:hover in the CSS definition in
order to be effective.</p>
</body></html>
```

o/p-

This is a link

Note: a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.

Note: a:active MUST come after a:hover in the CSS definition in order to be effective.

Advanced - Link Buttons

This example demonstrates a more advanced example where we combine several CSS properties to display links as boxes/buttons:

Example

```
<!DOCTYPE html>

<html>

<head>

<style>

a:link, a:visited {

background-color: #f44336;

color: white;

padding: 14px 25px;

text-align: center;

text-decoration: none;

display: inline-block;

}

a:hover, a:active {

background-color: red;

}
```

```
</style>
</head>
<body>
<a href="default.asp" target="_blank">This is a link</a>
</body>
</html>
```

o/p-

CSS Lists

HTML Lists and CSS List Properties

In HTML, there are two main types of lists:

- unordered lists (<ul>) - the list items are marked with bullets

- ordered lists (<ol>) - the list items are marked with numbers or letters

The CSS list properties allow you to:

- Set different list item markers for ordered lists

- Set different list item markers for unordered lists

- Set an image as the list item marker

- Add background colors to lists and list items

Different List Item Markers

The list-style-type property specifies the type of list item marker.

The following example shows some of the available list item markers:

```
<!DOCTYPE html>

<html>

<head>

<style>

ul.a {

list-style-type: circle;

}

ul.b {

list-style-type: square;

}

ol.c {

list-style-type: upper-roman;

}

ol.d {
```

```
list-style-type: lower-alpha;
}
</style>
</head>
<body>
<p>Example of unordered lists:</p>
<ul class="a">
<li>Coffee</li>
<li>Tea</li>
<li>Coca Cola</li>
</ul>
<ul class="b">
<li>Coffee</li>
<li>Tea</li>
<li>Coca Cola</li>
</ul>
<p>Example of ordered lists:</p>
<ol class="c">
<li>Coffee</li>
```

```
<li>Tea</li>
<li>Coca Cola</li>
</ol>
<ol class="d">
<li>Coffee</li>
<li>Tea</li>
<li>Coca Cola</li>
</ol></body>
</html>
```

o/p-

Example of unordered lists:

o
    Coffee o

    Tea o

Coca Cola

▪

Coffee

▪

Tea

▪

Coca Cola

Example of ordered lists:

 I. Coffee II. Tea III. Coca Cola

a. Coffee b. Tea c. Coca Cola

An Image as The List Item Marker

The list-style-image property specifies an image as the list item marker.

Example

```
<!DOCTYPE html>

<html>

<head>

<style>

ul {

list-style-image: url('sqpurple.gif');

}

</style>

</head>

<body>

<ul>

<li>Coffee</li>

<li>Tea</li>

<li>Coca Cola</li>

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

o/p-

- Coffee

- Tea

- Coca Cola

Instead of bullets it will show a image like box

Position The List Item Markers

The list-style-position property specifies whether the list-item markers should appear inside or outside the content flow.

Example-

<!DOCTYPE html>

<html>

<head>

<style>

ul.a {list-style-position:inside;}

ul.b {list-style-position:outside;}

</style>

</head>

<body>

<p>The following list has list-style-position: inside:</p>

<ul class="a">

```
<li>Coffee</li>
<li>Tea</li>
<li>Coca Cola</li>
</ul>
<p>The following list has list-style-position: outside:</p>
<ul class="b">
<li>Coffee</li>
<li>Tea</li>
<li>Coca Cola</li>
</ul>
<p>"list-style-position: outside" is the default setting.</p>
</body></html>
```

o/p-

The following list has list-style-position: inside:

- Coffee

- Tea

- Coca Cola

The following list has list-style-position: outside:

- Coffee

- Tea

- Coca Cola

"list-style-position: outside" is the default setting.

List - Shorthand property

The list-style property is a shorthand property. It is used to set all the list properties in one declaration.

Example

<!DOCTYPE html>

<html>

<head>

<style>

ul {

list-style: square inside url("sqpurple.gif");

}

</style>

</head>

<body>

Coffee

Tea

Coca Cola

\</ul\>

\</body\>

\</html\>

o/p-

.

Coffee

.

Tea

.

Coca Cola

Instead of bullets it will show a image like box

Styling List With Colors

We can also style lists with colors, to make them look a little more interesting.

Anything added to the \<ol\> or \<ul\> tag, affects the entire list, while properties added to the \<li\> tag will affect the individual list items.

Example

\<!DOCTYPE html\>

\<html\>

\<head\>

\<style\>

ol {

background: #ff9999;

padding: 20px;

```
}
ul {
background: #3399ff;
padding: 20px;
}
ol li {
background: #ffe5e5;
padding: 5px;
margin-left: 35px;
}
ul li {
background: #cce5ff;
margin: 5px;
}
</style>
</head>
<body>
<h1>Styling Lists With Colors:</h1>
```

```
<ol>
<li>Coffee</li>
<li>Tea</li>
<li>Coca Cola</li>
</ol>
<ul>
<li>Coffee</li>
<li>Tea</li>
<li>Coca Cola</li>
</ul>
</body>
</html>
```

o/p-

Styling Lists With Colors:

1. Coffee 2. Tea 3. Coca Cola

- Coffee

- Tea

- Coca Cola

CSS Tables

The look of an HTML table can be greatly improved with CSS.

Table Borders

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

The example below specifies a black border for <table>, <th>, and <td> elements:

Firstname Lastname

Peter Griffin

Lois Griffin

<!DOCTYPE html>

<html>

<head>

<style>

table, th, td {

border: 1px solid black;

}

</style>

</head>

```html
<body>
<h2>Add a border to a table:</h2>
<table>
<tr>
<th>Firstname</th>
<th>Lastname</th>
</tr>
<tr>
<td>Peter</td>
<td>Griffin</td>
</tr>
<tr>
<td>Lois</td>
<td>Griffin</td>
</tr>
</table>
</body>
</html>
```

O/P-

Add a border to a table:

Firstname Lastname Peter Griffin Lois Griffin

Collapse Table Borders

The border-collapse property sets whether the table borders should be collapsed into a single border.

Example

<!DOCTYPE html>

<html>

<head>

<style>

table {

border-collapse: collapse;

}

table, td, th {

border: 1px solid black;

}

</style>

</head>

<body>

<h2>Let the borders collapse:</h2>

<table>

<tr>

<th>Firstname</th>

<th>Lastname</th>

</tr>

<tr>

<td>Peter</td>

<td>Griffin</td>

</tr>

<tr>

<td>Lois</td>

```html
<td>Griffin</td>
</tr>
</table>
<p><b>Note:</b> If a !DOCTYPE is not specified, the border- collapse property
can produce unexpected results
in IE8 and earlier versions.</p>
</body>
</html>
```

o/p-

Let the borders collapse:

Firstname Lastname Peter Griffin Lois Griffin

Note: If a !DOCTYPE is not specified, the border-collapse property can produce unexpected results in IE8 and earlier versions.

Table Width and Height

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

The example below sets the width of the table to 100%, and the height of the <th> elements to 50px.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
table, td, th {
border: 1px solid black;
}
table {
border-collapse: collapse;
width: 100%;
}
```

```
th {
height: 50px;
}
</style>
</head>
<body>
<h2>The width and height Properties</h2>
<p>Set the width of the table, and the height of the table header row:</p>
<table>
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Savings</th>
</tr>
<tr>
<td>Peter</td>
<td>Griffin</td>
<td>$100</td>
```

```
</tr>
<tr>
<td>Lois</td>
<td>Griffin</td>
<td>$150</td>
</tr>
<tr>
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
</tr>
<tr>
<td>Cleveland</td>
<td>Brown</td>
<td>$250</td>
</tr>
</table>
</body>
</html>
```

o/p-

The width and height Properties

Set the width of the table, and the height of the table header row:

Firstname Lastname Savings

Peter Griffin $100 Lois Griffin $150 Joe Swanson $300 Cleveland Brown $250

Horizontal Alignment

The text-align property sets the horizontal alignment (like left, right, or center) of the content in <th> or <td>.

By default, the content of <th> elements are center-aligned and the content of <td> elements are left-aligned.

The following example left-aligns the text in <th> elements:

Firstname Lastname Sav

Peter Griffin $100

Lois Griffin $150

Joe Swanson $300

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
table, td, th {
border: 1px solid black;
}
table {
border-collapse: collapse;
width: 100%;
}
th {
text-align: left;
}
</style>
</head>
<body>
```

<h2>The text-align Property</h2>

<p>This property sets the horizontal alignment (like left, right, or center) of the content in th or td:</p>

<table>

<tr>

<th>Firstname</th>

<th>Lastname</th>

<th>Savings</th>

</tr>

<tr>

<td>Peter</td>

<td>Griffin</td>

<td>$100</td>

</tr>

<tr>

<td>Lois</td>

<td>Griffin</td>

<td>$150</td>

</tr>

```
<tr>
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
</tr>
<tr>
<td>Cleveland</td>
<td>Brown</td>
<td>$250</td>
</tr>
</table>
</body></html>
```
o/p-

The text-align Property

This property sets the horizontal alignment (like left, right, or center) of the content in th or td:

Firstname Lastname Savings Peter Griffin $100 Lois Griffin $150 Joe Swanson $300 Cleveland Brown $250

Vertical Alignment

The vertical-align property sets the vertical alignment (like top, bottom, or middle) of the content in <th> or <td>.

By default, the vertical alignment of the content in a table is middle (for both <th> and <td> elements).

The following example sets the vertical text alignment to bottom for <td> elements:

<!DOCTYPE html>

<html>

<head>

<style>

table, td, th {

border: 1px solid black;

}

table {

border-collapse: collapse;

width: 100%;

```
}
td {
height: 50px;
vertical-align: bottom;
}
</style>
</head>
<body>
<h2>The vertical-align Property</h2>
<p>This property sets the vertical alignment (like top, bottom, or middle) of the
content in th or td.</p>
<table>
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Savings</th>
</tr>
```

```
<tr>
<td>Peter</td>
<td>Griffin</td>
<td>$100</td>
</tr>
<tr>
<td>Lois</td>
<td>Griffin</td>
<td>$150</td>
</tr>
<tr>
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
</tr>
<tr>
<td>Cleveland</td>
<td>Brown</td>
<td>$250</td>
```

</tr>

</table>

</body>

</html>

o/p-

The vertical-align Property

This property sets the vertical alignment (like top, bottom, or middle) of the content in th or td.

Firstname Lastname Savings

Peter Griffin $100

Lois Griffin $150

Joe Swanson $300

Cleveland Brown $250

Table Padding

To control the space between the border and the content in a table, use the padding property on <td> and <th> elements:

Firstname Lastname Savin

Peter Griffin $100

Lois Griffin $150

Joe Swanson $300

<!DOCTYPE html>

<html>

<head>

<style>

table, td, th {

border: 1px solid #ddd;

text-align: left;

}

table {

```
border-collapse: collapse;
width: 100%;
}
th, td {
padding: 15px;
}
</style>
</head>
<body>
<h2>The padding Property</h2>
<p>This property adds space between the border and the content in a table.</p>
<table>
<tr>
<th>Firstname</th>
<th>Lastname</th>
```

```
<th>Savings</th>
</tr>
<tr>
<td>Peter</td>
<td>Griffin</td>
<td>$100</td>
</tr>
<tr>
<td>Lois</td>
<td>Griffin</td>
<td>$150</td>
</tr>
<tr>
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
</tr>
<tr>
<td>Cleveland</td>
```

```
<td>Brown</td>
<td>$250</td>
</tr>
</table>
</body>
</html>
```

o/p-

The padding Property

This property adds space between the border and the content in a table.

Firstname Lastname Savings

Peter Griffin $100

Lois Griffin $150

Joe Swanson $300

Cleveland Brown $250

Horizontal Dividers

First Name Last Name Sa

Peter Griffin $1

Lois Griffin $1

Joe Swanson $3

Add the border-bottom property to <th> and <td> for horizontal dividers:

<!DOCTYPE html>

<html>

<head>

<style>

```
table {
border-collapse: collapse;
width: 100%;
}
th, td {
padding: 8px;
text-align: left;
border-bottom: 1px solid #ddd;
}
</style>
</head>
<body>
<h2>Bordered Table Dividers</h2>
<p>Add the border-bottom property to th and td for horizontal dividers:</p>
<table>
```

```
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Savings</th>
</tr>
<tr>
<td>Peter</td>
<td>Griffin</td>
<td>$100</td>
</tr>
<tr>
<td>Lois</td>
<td>Griffin</td>
<td>$150</td>
</tr>
<tr>
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
```

</tr>

<tr>

<td>Cleveland</td>

<td>Brown</td>

<td>$250</td>

</tr>

</table>

</body>

</html>

o/p-

Bordered Table Dividers

Add the border-bottom property to th and td for horizontal dividers:

Firstname Lastname Savings

Peter Griffin $100

Lois Griffin $150

Joe Swanson $300

Cleveland Brown $250

Striped Tables

First Name Last Name Sa

Peter Griffin $1

Lois Griffin $1

Joe Swanson $3

For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:

```html
<!DOCTYPE html>
<html>
<head>
<style>
table {
border-collapse: collapse;
```

```
width: 100%;

}

th, td {

text-align: left;

padding: 8px;

}

tr:nth-child(even){background-color: #f2f2f2}

</style>

</head>

<body>

<h2>Striped Table</h2>

<p>For zebra-striped tables, use the nth-child() selector and add a background-
color to all even (or odd) table rows:</p>

<table>

<tr>
```

```html
<th>First Name</th>
<th>Last Name</th>
<th>Points</th>
</tr>
<tr>
<td>Peter</td>
<td>Griffin</td>
<td>$100</td>
</tr>
<tr>
<td>Lois</td>
<td>Griffin</td>
<td>$150</td>
</tr>
<tr>
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
</tr>
```

<tr>

<td>Cleveland</td>

<td>Brown</td>

<td>$250</td>

</tr>

</table>

</body>

</html>

o/p-

Striped Table

For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:

First Name Last Name Points

Peter Griffin $100

Lois Griffin $150

Joe Swanson $300

Cleveland Brown $250

Table Color

The example below specifies the background color and text color of <th> elements:

Peter Griffin $1

Lois Griffin $1

Joe Swanson $3

<!DOCTYPE html>

<html>

<head>

<style>

table {

```
border-collapse: collapse;
width: 100%;
}
th, td {
text-align: left;
padding: 8px;
}
tr:nth-child(even){background-color: #f2f2f2}
th {
background-color: #4CAF50;
color: white;
}
</style>
</head>
<body>
```

<h2>Colored Table Header</h2>

<table>

<tr>

<th>Firstname</th>

<th>Lastname</th>

<th>Savings</th>

</tr>

<tr>

<td>Peter</td>

<td>Griffin</td>

<td>$100</td>

</tr>

<tr>

<td>Lois</td>

<td>Griffin</td>

<td>$150</td>

</tr>

<tr>

```
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
</tr>
<tr>
<td>Cleveland</td>
<td>Brown</td>
<td>$250</td>
</tr>
</table>
</body>
</html>
```

o/p-

Colored Table Header

Peter Griffin $100

Lois Griffin $150

Joe Swanson $300

Cleveland Brown $250

Responsive Table

A responsive table will display a horizontal scroll bar if the screen is too small to display the full content:

First Name Last Name Points Points Points Points Points Points Points Po

Jill Smith 50 50 50 50 50 50 50 50

Eve Jackson 94 94 94 94 94 94 94 94

Adam Johnson 67 67 67 67 67 67 67 67

Add a container element (like <div>) with overflow- x:auto around the <table> element to make it responsive:

<!DOCTYPE html>

<html>

<head>

<style>

table {

border-collapse: collapse;

```
width: 100%;

}

th, td {

text-align: left;

padding: 8px;

}

tr:nth-child(even){background-color: #f2f2f2}

</style>

</head>

<body>
```

\<h2\>Responsive Table\</h2\>

\<p\>A responsive table will display a horizontal scroll bar if the screen is too small to display the full content. Resize the browser window to see the effect:\</p\>

\<p\>To create a responsive table, add a container element (like div) with \<strong\>overflow-x:auto\</strong\> around the table element:\</p\>

\<div style="overflow-x:auto;"\>

\<table\>

\<tr\>

\<th\>First Name\</th\>

\<th\>Last Name\</th\>

```
<th>Points</th>
<th>Points</th>
<th>Points</th>
<th>Points</th>
<th>Points</th>
<th>Points</th>
<th>Points</th>
<th>Points</th>
<th>Points</th>
<th>Points</th>
</tr>
<tr>
```

```
<td>Jill</td>
<td>Smith</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
```

```
</tr>

<tr>

<td>Eve</td>

<td>Jackson</td>

<td>94</td>

<td>94</td>

<td>94</td>

<td>94</td>

<td>94</td>

<td>94</td>

<td>94</td>

<td>94</td>
```

```
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>Adam</td>
<td>Johnson</td>
<td>67</td>
<td>67</td>
<td>67</td>
<td>67</td>
<td>67</td>
<td>67</td>
```

```html
<td>67</td>
<td>67</td>
<td>67</td>
<td>67</td>
</tr>
</table>
</div>
</body>
</html>
```

o/p-

Responsive Table

A responsive table will display a horizontal scroll bar if the screen is too small to display the full content. Resize the browser window to see the effect:

To create a responsive table, add a container element (like div) with overflow-x:auto around the table element:

First Name Last Name Points Points Points Points Points Points Points Points Points

Jill Smith 50 50 50 50 50 50 50 50 50

Eve Jackson 94 94 94 94 94 94 94 94 94

Adam Johnson 67 67 67 67 67 67 67 67 67

We also get a horizontal scroll bar at the bottom.