

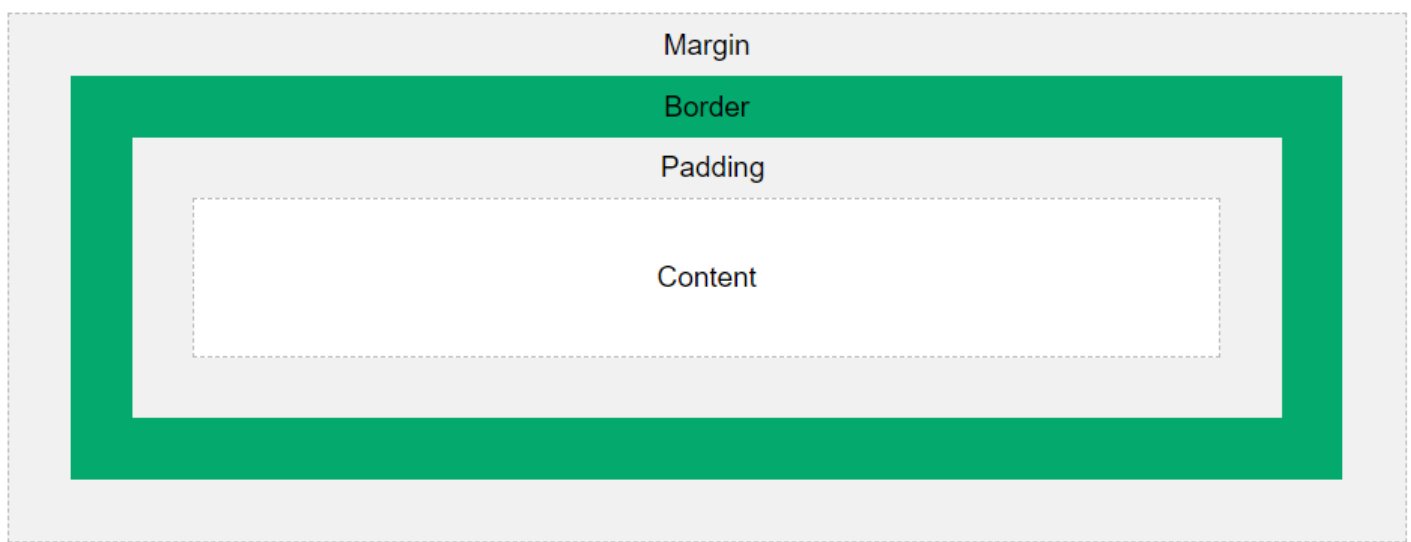
## 4.4 CSS Margins, Padding, and Borders



*marshmallow castle - answered by Ralph Prado*

### Box Model

- In CSS, the term "box model" is used when talking about design and layout.
  - The CSS box model is essentially a box that wraps around every HTML element.
  - It consists of: margins, borders, padding, and the actual content.
- The image below illustrates the box model:



- The box model is comprised of 4 parts:
  - **Content.** The content of the box, where text and images appear

- **Padding.** Clears an area around the content. The padding is transparent
- **Border.** A border that goes around the padding and content
- **Margin.** Clears an area outside the border. The margin is transparent

# Margins and Padding

- **Margins** and **padding** are two fundamental CSS concepts used for spacing and layout.
  - **Margins** create space around the element, influencing the spacing between adjacent elements.
  - **Padding** affects the spacing inside the element, between its content and the border.

Style	Description	Possible values	Sample code	Pre
<div>margin</div> <div>margin-top</div> <div>margin-left</div> <div>margin-right</div> <div>margin-bottom</div>	<ul style="list-style-type: none"><li>Sets the spacing outside an element, creating space between the element and its neighboring elements, affecting the layout and positioning of the element on the web page.</li></ul>	Read on <a href="https://kodego.instructure.com/courses/379/pages/reference-number-2-css-sizing">sizes</a> ( <a href="https://kodego.instructure.com/courses/379/pages/reference-number-2-css-sizing">https://kodego.instructure.com/courses/379/pages/reference-number-2-css-sizing</a> )	<div>&lt;body&gt;</div> <div>&lt;div&gt;</div> <div>&lt;img</div> <div>src="ketchup.png"</div> <div>/&gt;&lt;img</div> <div>src="ketchup.png"</div> <div>/&gt;&lt;img</div> <div>src="ketchup.png"</div> <div>/&gt;</div> <div>&lt;/div&gt;</div> <div>&lt;div&gt;</div> <div>&lt;img</div> <div>src="ketchup.png"</div> <div>/&gt;&lt;img</div> <div></div> <div>src="ketchup.png"</div> <div></div> <div>style="padding-left: 50px;</div> <div>background-color: yellow"</div> <div>/&gt;&lt;img</div> <div>src="ketchup.png"</div> <div>/&gt;</div> <div>&lt;/div&gt;</div> <div>&lt;div&gt;</div> <div>&lt;img</div> <div>src="ketchup.png"</div> <div>/&gt;&lt;img</div>	



```
</div>
```

```
</body>
```

## Shorthand property

- To shorten the code, it is possible to specify all the values in one property.
- The `margin` and `padding` property is a shorthand property for directions **top**, **right**, **bottom**, and **left**.

- For example, if the `padding` property has four values:

```
padding: 25px 50px 75px 100px;
```

- The top padding is 25px
- The right padding is 50px
- The bottom padding is 75px
- The left padding is 100px
- If the `padding` property has three values:

```
padding: 25px 50px 75px;
```

- top padding is 25px
- right and left paddings are 50px
- bottom padding is 75px
- If the `padding` property has two values:

```
padding: 25px 50px;
```

- top and bottom paddings are 25px
- right and left paddings are 50px
- If the `padding` property has one value:

```
padding: 25px;
```

- all four paddings are 25px
- The same rules apply for `margin`!

## Borders

- **Borders** are used to create a visible boundary around elements, separating the content from its surroundings and enhancing the visual appearance of the elements.

Style	Description	Possible values	Sample code
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## border-style

- Defines the type of line used to create the border of an element

A dotted border.

A dashed border.

A solid border.

A double border.

- dotted
- dashed
- solid
- double
- none

```
<style>
#p1 {
border-style:
dotted;
}
#p2 {
border-style:
dashed;
}
#p3 {
border-style:
solid;
}
#p4 {
border-style:
double;
}
#p5 {
border-style:
none;
}
</style>
<body>
<div>
<p id="p1">This
paragraph is dotted
bordered.</p>
<p id="p2">This
paragraph is dashed
bordered.</p>
<p id="p3">This
paragraph is solid
bordered.</p>
<p id="p4">This
paragraph is double
bordered.</p>
<p id="p5">This
paragraph is none
bordered.</p>
</div>
```

			</body>
border-color	<ul style="list-style-type: none"> <li>Sets the color of an element's border, determining the hue of the line that surrounds the element</li> </ul>	See <a href="https://kodego.instructure.com/courses/379/pages/reference-number-3-css-colors">colors</a> ( <a href="https://kodego.instructure.com/courses/379/pages/reference-number-3-css-colors">https://kodego.instructure.com/courses/379/pages/reference-number-3-css-colors</a> ).	<pre> &lt;style&gt;   #p1 {     border-style:     solid;     border-color:     red;   } &lt;/style&gt; &lt;div&gt;   &lt;p     id="p1"&gt;Spaghetti     and meatballs.&lt;/p&gt; &lt;/div&gt; </pre>
border-collapse	<ul style="list-style-type: none"> <li>Specifies whether the borders of adjacent table cells should be collapsed into a single border or displayed separately with a small spacing in between.</li> <li>Only usable with table elements (<code>table</code>, <code>th</code>, <code>td</code>)</li> </ul>	<ul style="list-style-type: none"> <li><code>separate</code> - removes the collapsing effect between adjacent table borders</li> <li><code>collapse</code> - adds the collapsing effect between adjacent table borders</li> </ul>	<pre> &lt;style&gt;   table,   tr,   th {     border-style:     solid;     border-collapse:     collapse;   } &lt;/style&gt; &lt;table&gt;   &lt;tr&gt;     &lt;th&gt;Croissant&lt;/th&gt;     &lt;td&gt;PHP 90&lt;/td&gt;   &lt;/tr&gt;   &lt;tr&gt;     &lt;th&gt;Escargot&lt;/th&gt;     &lt;td&gt;PHP     300&lt;/td&gt;   &lt;/tr&gt;   &lt;tr&gt;     &lt;th&gt;Ratatouille&lt;/th&gt; </pre>

			<div>&lt;td&gt;PHP</div> <div>100&lt;/td&gt;</div> <div>&lt;/tr&gt;</div> <div>&lt;tr&gt;</div> <div>&lt;th&gt;Quiche&lt;/th&gt;</div> <div>&lt;td&gt;PHP 80&lt;/td&gt;</div> <div>&lt;/tr&gt;</div> <div>&lt;/table&gt;</div>
<div>border-</div> <div>width</div>	<ul style="list-style-type: none"> <li>Sets the thickness of an element's border, determining how wide the border lines surrounding the element should be.</li> </ul>	<ul style="list-style-type: none"> <li>See <a href="https://kodego.instructure.com/courses/379/pages/reference-number-2-css-sizing">sizes</a> (<a href="https://kodego.instructure.com/courses/379/pages/reference-number-2-css-sizing">https://kodego.instructure.com/courses/379/pages/reference-number-2-css-sizing</a>).</li> </ul>	<div>&lt;style&gt;</div> <div>table,</div> <div>tr,</div> <div>th {</div> <div>border-style:</div> <div>solid;</div> <div>border-collapse:</div> <div>collapse;</div> <div>border-width:</div> <div>4px;</div> <div>}</div> <div>&lt;/style&gt;</div> <div>&lt;table&gt;</div> <div>&lt;tr&gt;</div> <div></div> <div>&lt;th&gt;Croissant&lt;/th&gt;</div> <div>&lt;td&gt;PHP 90&lt;/td&gt;</div> <div>&lt;/tr&gt;</div> <div>&lt;tr&gt;</div> <div></div> <div>&lt;th&gt;Escargot&lt;/th&gt;</div> <div>&lt;td&gt;PHP</div> <div>300&lt;/td&gt;</div> <div>&lt;/tr&gt;</div> <div>&lt;tr&gt;</div> <div></div> <div>&lt;th&gt;Ratatouille&lt;/th&gt;</div> <div>&lt;td&gt;PHP</div> <div>100&lt;/td&gt;</div> <div>&lt;/tr&gt;</div> <div>&lt;tr&gt;</div> <div></div> <div>&lt;th&gt;Quiche&lt;/th&gt;</div>

			<code>&lt;td&gt;PHP 80&lt;/td&gt;</code>
			<code>&lt;/tr&gt;</code>
			<code>&lt;/table&gt;</code>

## Shorthand property

- To shorten the code, it is possible to specify all the values in one property.
- The border property is a shorthand property for four different properties: `border-width`, `border-style`, and `border-color`.
  - For example, if the `border` property has the following values:

```
border: 1px solid black;
```

- The `border-width` is set to 1px.
- The `border-style` is set to `solid`.
- The `border-color` is set to black.

### Setting properties to one border side

- In addition to the shorthand mentioned above, each element side also has its own shorthand.
  - `border-left`
  - `border-right`
  - `border-up`
  - `border-down`

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## Additional Material

- **References**
  - [W3Schools](#)