

Coding Bootcamp (HTML & CSS)

Home HTML: step 1 HTML: step 2 CSS: step 1 CSS: step 2

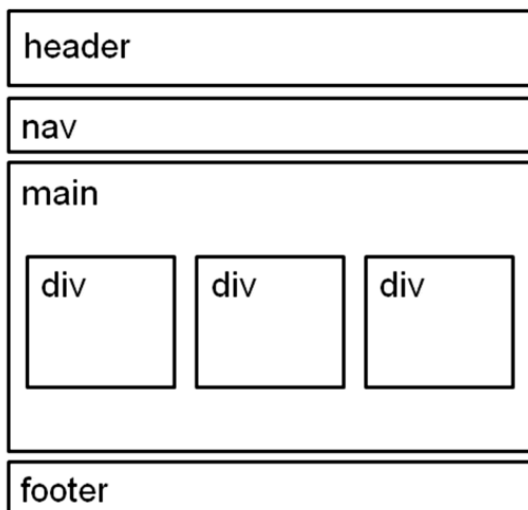
Step 2, Cascading Style Sheets (continued)

In this step, we go through the following topics:

- Semantic Elements
- HTML <div> tag
- The float property in CSS
- The margin and padding property in CSS (Box model)

Semantic Elements,

With HTML4, developers used their own id/class names to style elements: header, footer, menu, main etc. This made it impossible for search engines to identify the correct web page content. With the new HTML5 elements (<header>, <footer>, <nav>, <section>, <article> etc), this will become easier.



header Element

```
<header></header>
```

Contains the web page document's headings

nav Element

```
<nav></nav>
```

Contains web page document's main navigation

main Element

```
<main></main>
```

Contains the web page document's main content

footer Element

```
<footer></footer>
```

Contains the web page document's footer

Below is an alphabetical list of the new semantic elements in HTML5:

Tag	Description
<code><article></code>	Defines an article
<code><aside></code>	Defines content aside from the page content
<code><details></code>	Defines additional details that the user can view or hide
<code><figcaption></code>	Defines a caption for a <code><figure></code> element
<code><figure></code>	Specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.
<code><footer></code>	Defines a footer for a document or section
<code><header></code>	Specifies a header for a document or section
<code><main></code>	Specifies the main content of a document
<code><mark></code>	Defines marked/highlighted text
<code><nav></code>	Defines navigation links
<code><section></code>	Defines a section in a document
<code><summary></code>	Defines a visible heading for a <code><details></code> element
<code><time></code>	Defines a date/time

Source

https://www.w3schools.com/html/html5_semantic_elements.asp

Semantic elements and external CSS-file in practice

Below I apply not only some semantic elements but also an external CSS-file at the Vikens kennel site:


Vikens kennel- Rhodesian Ridgeback

[Start](#) [My Dog](#) [Contact](#)

Welcome to Vikens Kennel!

My kennel conducts a small and dedicated breeding of Rhodesian Ridgeback.
My ambition is to breed healthy & nice dogs, who, above all, should function as family members in their new homes.
Are you thinking of getting a Rhodesian Ridgeback, then you are most welcome to contact me with your questions or for general "dog talk".

// Pelle



Pelle Warpa
Phone:
+46 0301 1234
+46 736 12345

This is the HTML-file (note that the tags defining the page design are missing, this is in the external CSS file.

Syntax:

```

index.html
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <link rel="stylesheet" href="vikens.css">
5 <title>Vikens kennel</title>
6 </head>
7
8 <header>
9 <h1>Vikens kennel- Rhodesian Ridgeback</h1>
10 </header>
11
12 <nav>
13 <p><b>
14 <a href="index.html">Start </a> &nbsp; &nbsp; &nbsp;
15 <a href="my_dog.html">My Dog</a> &nbsp; &nbsp; &nbsp;
16 <a href="contact.html">Contact</a> &nbsp; &nbsp; &nbsp;
17 </p>
18 </nav>
19 <main>
20 
21 <h2>Welcome to Vikens Kennel!</h2>
22 <p>
23 My kennel conducts a small and dedicated breeding of Rhodesian Ridgeback. <br>
24 My ambition is to breed healthy & nice dogs, <br>
25 who, above all, should function as family members in their new homes. <br>
26 Are you thinking of getting a Rhodesian Ridgeback, <br>
27 then you are most welcome to contact me <br>
28 with your questions or for general "dog talk". <br>
29
30 <br>
31
32 // Pelle </p>
33
34
35 </FONT>
36 </main>
37 <footer>
38 Pelle Warpa<br>
39 Phone:<br>
40 &nbsp; &nbsp; &nbsp; &nbsp; +46 0301 1234<br>
41 &nbsp; &nbsp; &nbsp; &nbsp; +46 736 12345<br>
42 </footer>
43 </body>
44 </html>

```

And finally Here's how I chose to define my CSS file:

Syntax:

```

vikens.css
1
2 header {
3   color: white;
4   background: hotpink;
5   font-family:arial;
6   text-align: center;
7   border: solid black 1px;
8 }
9
10 nav{
11   text-align: center;
12   background: deeppink;
13   color: white;
14   border: solid black 1px;
15 }
16
17 main{
18   color: white;
19   font-family:arial;
20   background-color: mediumvioletred;
21   min-height: 50%;
22   border: solid black 1px;
23   min-height: 600px;
24 }
25 footer{
26   color: white;
27   font-family:arial;
28   background-color: palevioletred;
29   border: solid black 1px;
30 }
31
32 img {
33   max-width:50%;
34   height:auto;
35   float:right;
36 }

```

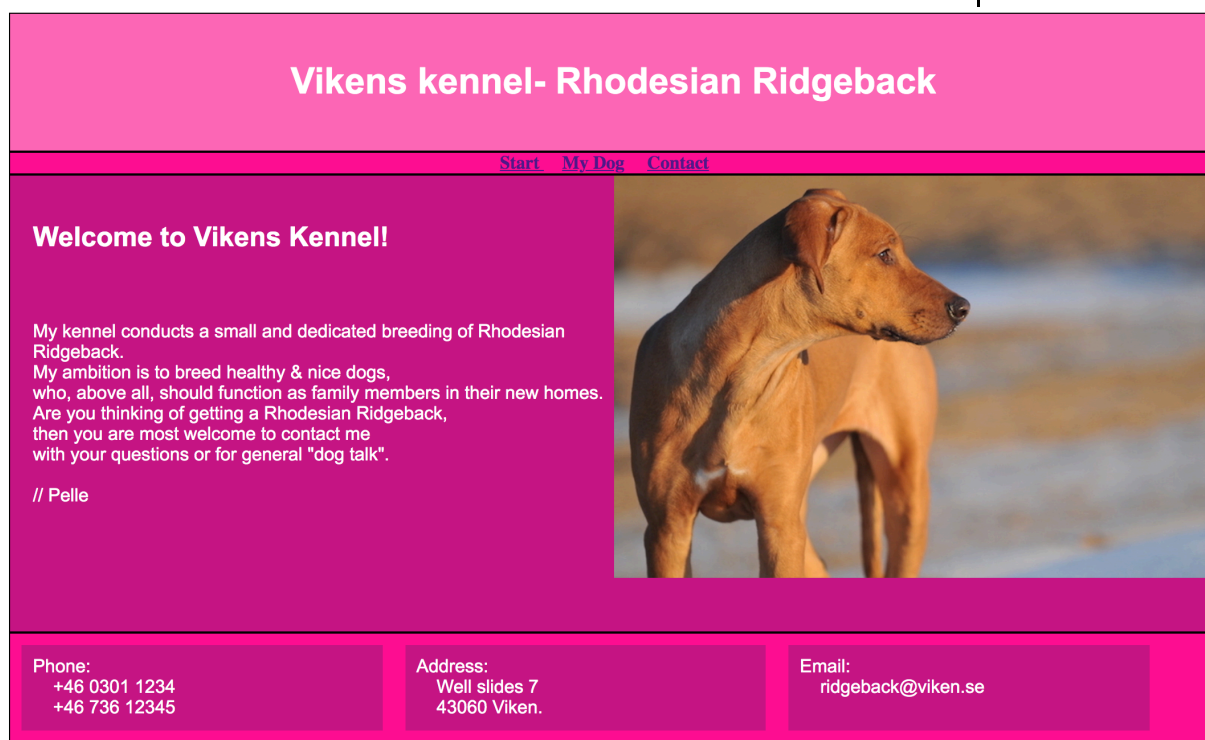
HTML <div> tag

The <div> tag defines a division or a section in an HTML document.

The `<div>` element is often used as a container , which defines a division or a section. It is used to group HTML elements to be styled with CSS. Note that the `<div>` tag is a block-level element, so a line break is placed before and after it.

HTML `<div>` tag in practice

Our dog kennel has had its page updated. Inside the footer, three div-taggas have been added containing information about the telephone number, address and email to the kennel:



Code inside the HTML- file

Note the id attribute, it specifies a unique id for an HTML element, the value must be unique within the HTML file. The id value is used by CSS (and JavaScript) to perform certain tasks for the element with the specific id value.

Syntax:

```

<footer>
  <div id="phone">
    Phone:<br>
    &nbsp; &nbsp; +46 0301 1234<br>
    &nbsp; &nbsp; +46 736 12345<br>
  </div>
  <div id="address">
    Address:<br>
    &nbsp; &nbsp; Well slides 7<br>
    &nbsp; &nbsp; 43060 Viken.<br>
  </div>
  <div id="mail">
    Email:<br>
    &nbsp; &nbsp; ridgeback@viken.se
  </div>
</footer>

```

Code inside the CSS- file

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

Syntax:

```

div#phone{
  background-color: mediumvioletred;
  margin: 10px;
  padding: 10px;
  width: 28%;
  height: 55px;
  float:left;
}

div#address{
  background-color: mediumvioletred;
  margin: 10px;
  padding: 10px;
  width: 28%;
  height: 55px;
  float:left;
}

div#mail{
  background-color: mediumvioletred;
  margin: 10px;
  padding: 10px;s
  width: 28%;
  height: 55px;
  float:left;
}

```

The float property in CSS

As I mentioned above, the <div> tag is a block-level element, so a line break is placed before and after it. One way to get around this and place the <div> elements next to each other is to apply float property.

The float property specifies how your div element should float. The "float" attribute adjusts a div element to the right or left along its current line.

Note: Elements after a floating element will flow around it. To avoid this, use the clear property (not necessary to apply in the example above).

Syntax:

```
div#phone{
  background-color: mediumvioletred;
  margin: 10px;
  padding: 10px;
  width: 28%;
  height: 55px;
  float:left;
}

div#address{
  background-color: mediumvioletred;
  margin: 10px;
  padding: 10px;
  width: 28%;
  height: 55px;
  float:left;
}

div#mail{
  background-color: mediumvioletred;
  margin: 10px;
  padding: 10px;s
  width: 28%;
  height: 55px;
  float:left;
}
```

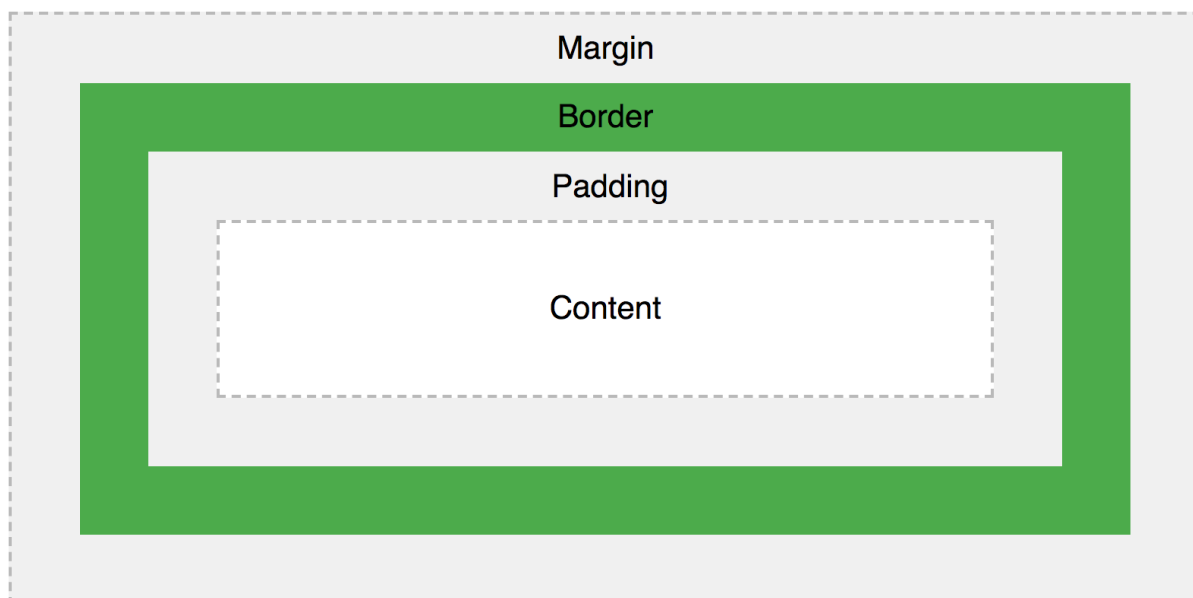
The margin and padding property in CSS (Box model)

The Box model

In CSS, all HTML elements exist within an element box. It is absolutely essential that you familiarize yourself with the terminology and relationship of the CSS properties within the element box.

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 content (text):



Source https://www.w3schools.com/css/css_boxmodel.asp

The Box model in practice

I have already applied the "Box Model" in the code above. The following example is just a clear example:

The screenshot shows a web browser window with the title 'The Box Model'. The address bar shows the URL `/Users/ics-mwa/Desktop/Lab_www/BoxModel/index.html`. The page content includes a heading 'Demonstrating the Box Model' and a paragraph explaining the CSS box model. Below the text is a pink box with a thick pink border, containing Lorem Ipsum text. The browser's taskbar at the bottom shows several open applications: Appar, SDA-Project, Logga in, Live@Lund, TimeEdit Lunds u..., Ladok - start, and Övriga bokmärken.

Demonstrating the Box Model

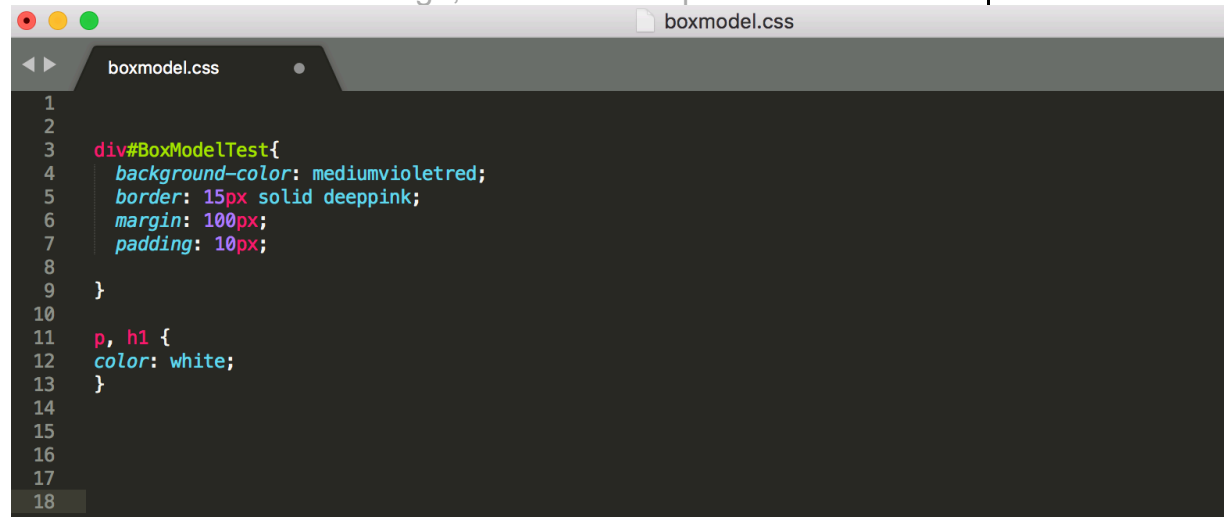
The CSS box model is essentially a box that wraps around every HTML element. It consists of:

- margin: 100px;
- border: 15px solid deeppink;
- padding: 10px;
- content: lorem ipsum...
- background-color: mediumvioletred;

lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum
 ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum
 lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum lorem ipsum
 ipsum lorem ipsum lorem ipsum lorem ipsum

Below is the syntax for the CSS file:

I use (.) to address a class selector and (#) to address a Id. When it comes to targeting generic HTML tags in just use the tag name, see at the bottom of the image, how I address p and h1!



```
1
2
3  div#BoxModelTest{
4      background-color: mediumvioletred;
5      border: 15px solid deeppink;
6      margin: 100px;
7      padding: 10px;
8  }
9
10
11  p, h1 {
12      color: white;
13  }
14
15
16
17
18
```

Published by:
Magnus Wärja (magnus.warja@ics.lu.se)