

INTRO TO HTML & CSS

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HOW WE'LL DO THIS

- **Do interrupt me**
- **Do shout out**
- **Do ask me questions**
- **Do ask each other questions**

**A SET OF INSTRUCTIONS.
A RECIPE.
A STEP BY STEP PROCESS.**



WHAT CAN I BUILD?



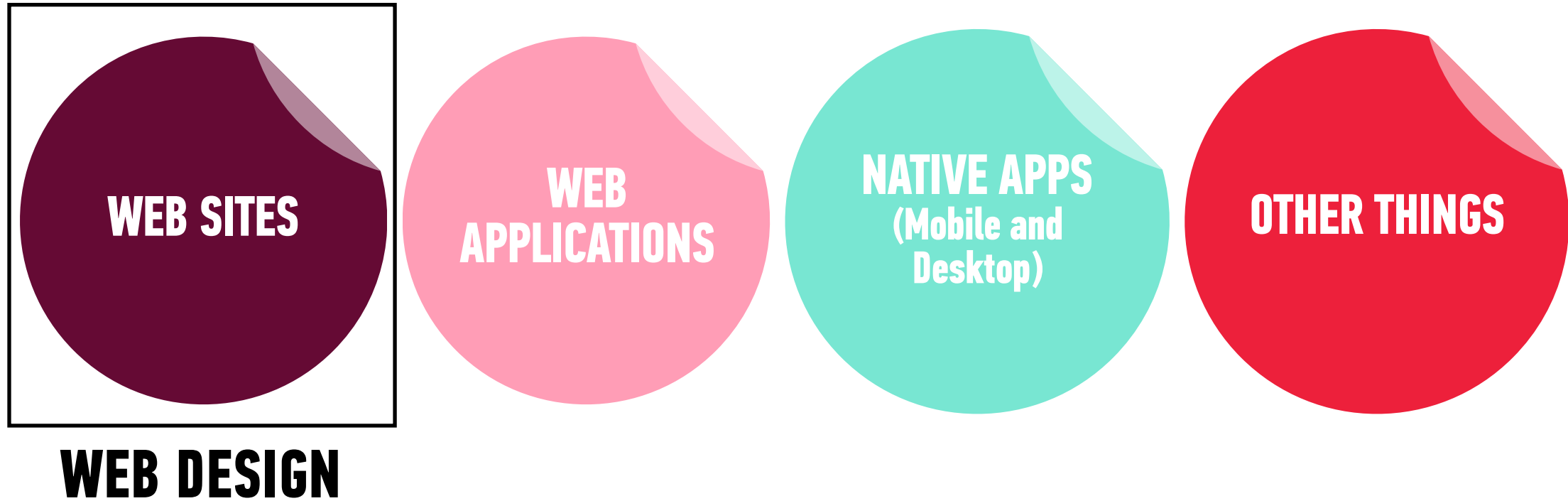
WEB SITES

**WEB
APPLICATIONS**

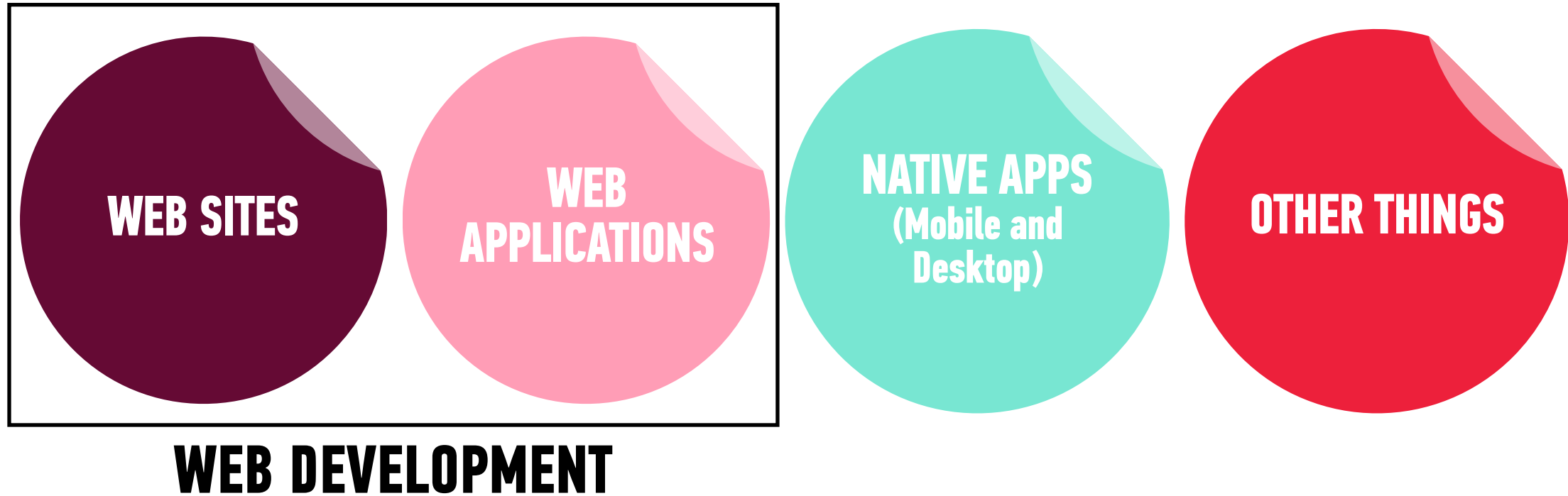
NATIVE APPS
(Mobile and
Desktop)

OTHER THINGS

WHAT CAN I BUILD?



WHAT CAN I BUILD?



FRONT END

The content of the page, visual styling instructions and code describing the interactive parts of the user interface.

BACK END

The preparation of that content, storage of user-submitted data, and any ‘business logic’.

FRONT END LANGUAGES

Front End

HTML,
CSS and
JavaScript

BACK END LANGUAGES

Back End

Ruby, PHP,
Python, Perl,
Java and more

LET'S CODE!

A BASIC WEB SITE

HTML

HYPertext MARKUP LANGUAGE

HTML

HyperText



Text that you can
click through: hyperlinks!

Markup



Highlighting parts
of content for
description

Language

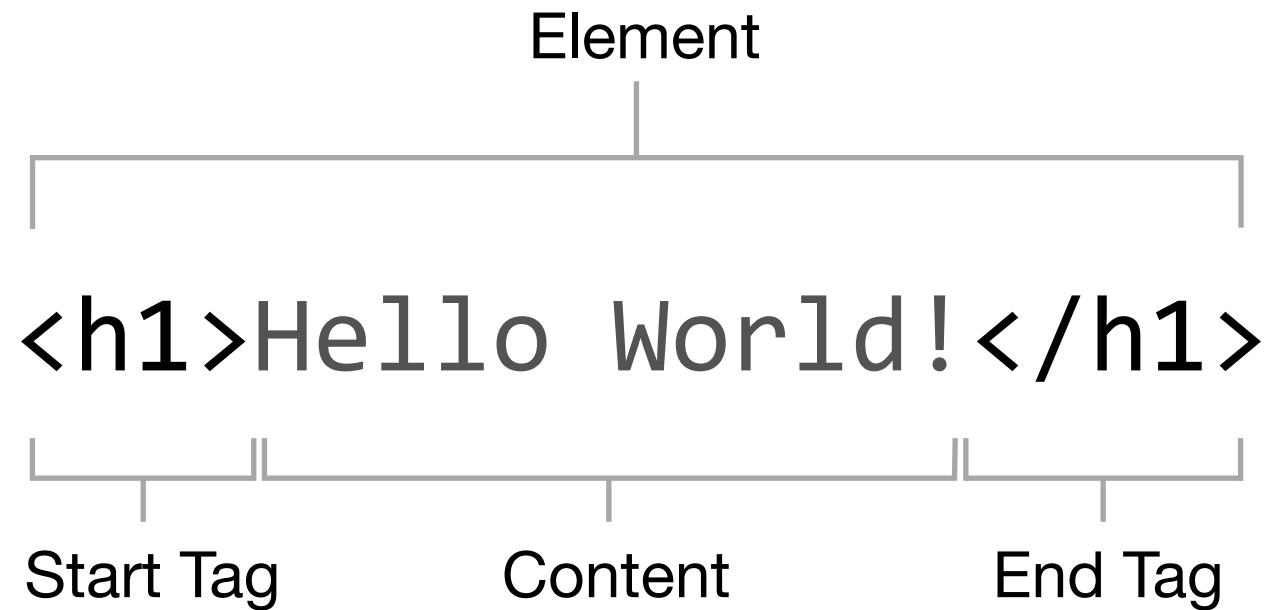


A means of
communicating between
two things (you and the
computer!)

HTML SYNTAX

```
<h1>Hello World!</h1>
```

HTML SYNTAX



COOKIE RECIPE

Your Grandma wants you to publish her famous cookie recipe to the world wide web, she's typed it out for you here:

Starter:

<http://tinyurl.com/cookies-exercise>

Solution:

<http://tinyurl.com/cookies-exercise-solution>

HTML HEADING ELEMENTS

`<h1>Top-Level Heading</h1>`

`<h2>Second-Level Heading</h2>`

`<h3>Third-Level Heading</h3>`

`<h4>Fourth-Level Heading</h4>`

`<h5>Fifth-Level Heading</h5>`

`<h6>Bottom-Level Heading</h6>`

HTML PARAGRAPH ELEMENT

```
<p>Lorem ipsum dolor sit amet, consectetur  
adipiscing elit, sed do eiusmod tempor  
incididunt ut labore et dolore magna aliqua.  
Ut enim ad minim veniam, quis nostrud  
exercitation ullamco laboris nisi ut aliquip  
ex ea commodo consequat.</p>
```


HTML NESTING SYNTAX

```
<ul>  
  <li>Hello</li>  
  <li>World</li>  
</ul>
```

HTML LIST ELEMENTS

Ordered (numbered) List

```
<ol>  
  <li>First item</li>  
  <li>Second item</li>  
  <li>Third item</li>  
  <li>Fourth item</li>  
</ol>
```

Un-ordered (bulleted) List

```
<ul>  
  <li>List item</li>  
  <li>List item</li>  
  <li>List item</li>  
  <li>List item</li>  
</ul>
```

HTML ATTRIBUTES

Attributes allow us to provide more information about an element to the browser.



HTML HYPERLINK ELEMENT

Also known as the ‘anchor’ element. Used to make a clickable link between HTML documents.

```
<a href="http://www.google.com">Click here to go to google!</a>
```

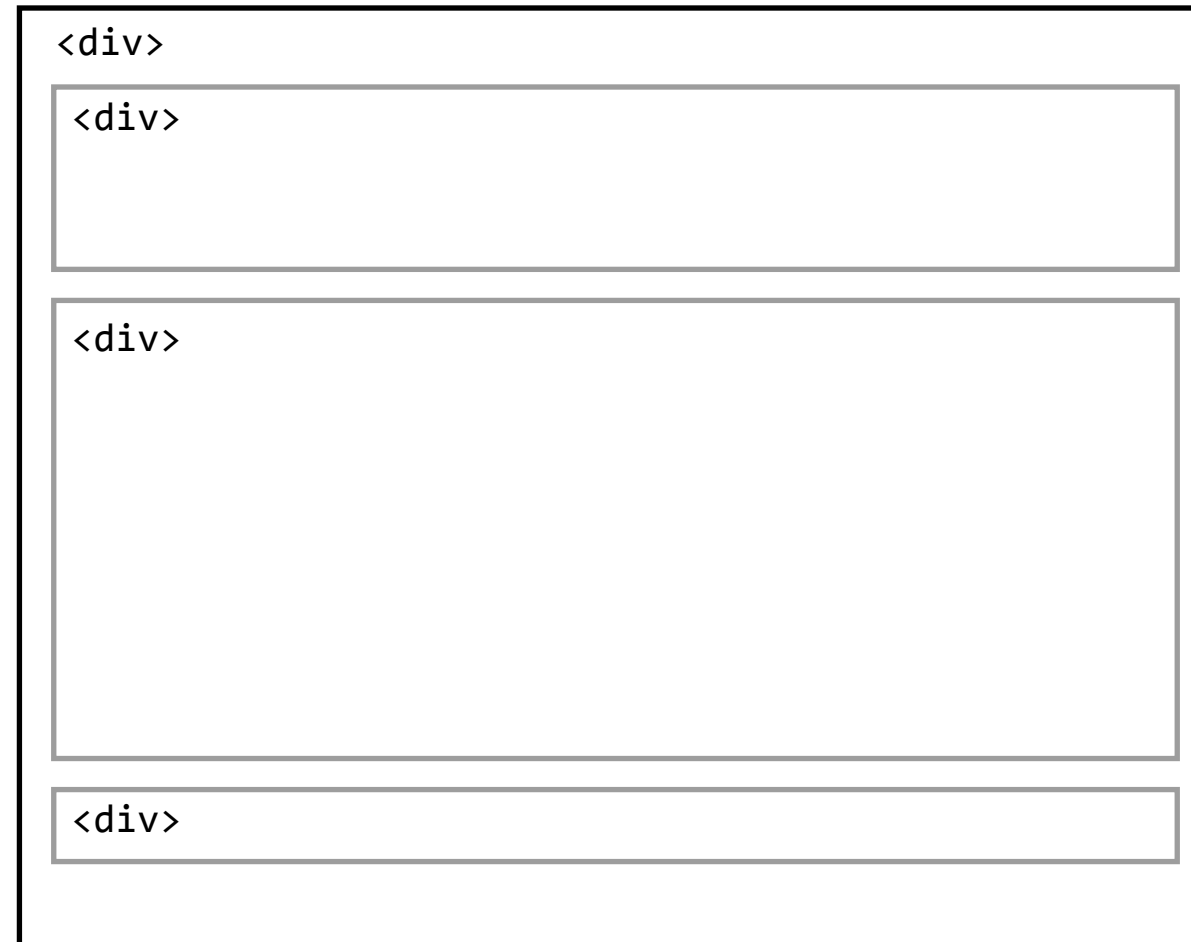
HTML IMAGE ELEMENT

Used for content images (not backgrounds). Look! It's self-closing!

```

```

DIVISION 'DIV' ELEMENT



CSS

CASCADING STYLESHEETS

CSS

Cascading



```
graph TD; A[Cascading] --> B[Styling instructions can overlap and overrule one another, to various ends.]; C[Stylesheets] --> D[Documents containing instructions dictating the appearance of a web page];
```

Stylesheets

Documents containing
instructions dictating the
appearance of a web page

Styling instructions can overlap and
overrule one another, to various
ends.

CSS SYNTAX

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

CSS SYNTAX

Selector



h1 {

color: red;

}

Property

Value

CSS SELECTOR SYNTAX

Element name selectors are used to select that type of element all through the document.

```
<p>Lorem ipsum</p>
```

```
p {  
    font-weight: bold;  
}
```

SOME CSS PROPERTIES

`color: red;`

`background: yellow;`

`font-family: helvetica sans-serif;`

`font-size: 20px;`

`border: 1px solid black;`

`width: 300px;`

CSS CLASS SELECTOR SYNTAX

Classes are used to style **certain elements**; they could be different types of elements or at different positions in the page.

```
<p class="intro">Lorem ipsum</p>
```

```
.intro {  
    font-weight: bold;  
}
```

CSS ID SELECTOR SYNTAX

Use an ID to style an **individual element**. A unique ID should only be used once, on one element, in an HTML document.

```
<p id="intro">Lorem ipsum</p>
```

```
#intro {  
    font-weight: bold;  
}
```

CSS COLOURS

Name

e.g. red, lightgrey, green, black

RGB

e.g. `rgb(255,0,0)`, `rgb(128,128,128)`, `rgb(0,200,50)`

RGBa

e.g. `rgba(255,0,0,1)`, `rgba(128,128,128,0.5)`, `rgba(0,200,50,0.1)`

Hexadecimal

e.g. `#33ffcc`, `#666666`, `#bada55`

CSS HEXADECIMAL SYNTAX

Instead of counting 0-15, computers like to count 00-09 then 0a-0f.

Base 10

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Base 16

00
01
02
03
04
05
06
07
08
09
0a
0b
0c
0d
0e
0f

Base 10

16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

Base 16

10
11
12
13
14
15
16
17
18
19
1a
1b
1c
1d
1e
1f

CSS HEXADECIMAL SYNTAX

#	red	green	blue
#	00-ff	00-ff	00-ff

e.g. #000000 = black
#ff0000 = red
#333333 = dark grey
#ccccff = light blue
#ffffff = white

CSS RGB SYNTAX

```
rgb(    red    ,    green    ,    blue    )  
rgb(  0-255   ,  0-255   ,  0-255   )
```

e.g. `rgb(0,0,0)` = black
`rgb(255,0,0)` = red
`rgb(50,50,50)` = dark grey
`rgb(196,196,255)` = light blue
`rgb(255,255,255)` = white

CSS COLOUR NAMES

aliceblue, antiquewhite, aqua, aquamarine, azure, beige, bisque, black, blanchedalmond, blue, blueviolet, brown, burlywood, cadetblue, chartreuse, chocolate, coral, cornflowerblue, cornsilk, crimson, cyan, darkblue, darkcyan, darkgoldenrod, darkgray, darkgreen, darkkhaki, darkmagenta, darkolivegreen, darkorange, darkorchid, darkred, darksalmon, darkseagreen, darkslateblue, darkslategray, darkturquoise, darkviolet, deeppink, deepskyblue, dimgray, dodgerblue, firebrick, floralwhite, forestgreen, fuchsia, gainsboro, ghostwhite, gold, goldenrod, gray, green, greenyellow, honeydew, hotpink, indianred, indigo, ivory, khaki, lavender, lavenderblush, lawngreen, lemonchiffon, lightblue, lightcoral, lightcyan, lightgoldenrodyellow, lightgray, lightgreen, lightpink, lightsalmon, lightseagreen, lightskyblue, lightslategray, lightsteelblue, lightyellow, lime, limegreen, linen, magenta, maroon, mediumaquamarine, mediumblue, mediumorchid, mediumpurple, mediumseagreen, mediumslateblue, mediumspringgreen, mediumturquoise, mediumvioletred, midnightblue, mintcream, mistyrose, moccasin, navajowhite, navy, oldlace, olive, olivedrab, orange, orangered, orchid, palegoldenrod, palegreen, paleturquoise, palevioletred, papayawhip, peachpuff, peru, pink, plum, powderblue, purple, red, rosybrown, royalblue, saddlebrown, salmon, sandybrown, seagreen, seashell, sienna, silver, skyblue, slateblue, slategray, snow, springgreen, steelblue, tan, teal, thistle, tomato, turquoise, violet, wheat, white, whitesmoke, yellow, yellowgreen

e.g. <http://colours.neilorangepeel.com>

CSS BOX PROPERTIES

width: 50%;

height: 150px;

padding: 20px;

border: 1px solid black;

margin: 50px;

CSS BOX PROPERTIES

Margin, padding and border-width accept shortcuts:

```
/* All sides */
```

```
margin: 10px;
```

```
/* Top bottom, left right */
```

```
margin: 10px 50px;
```

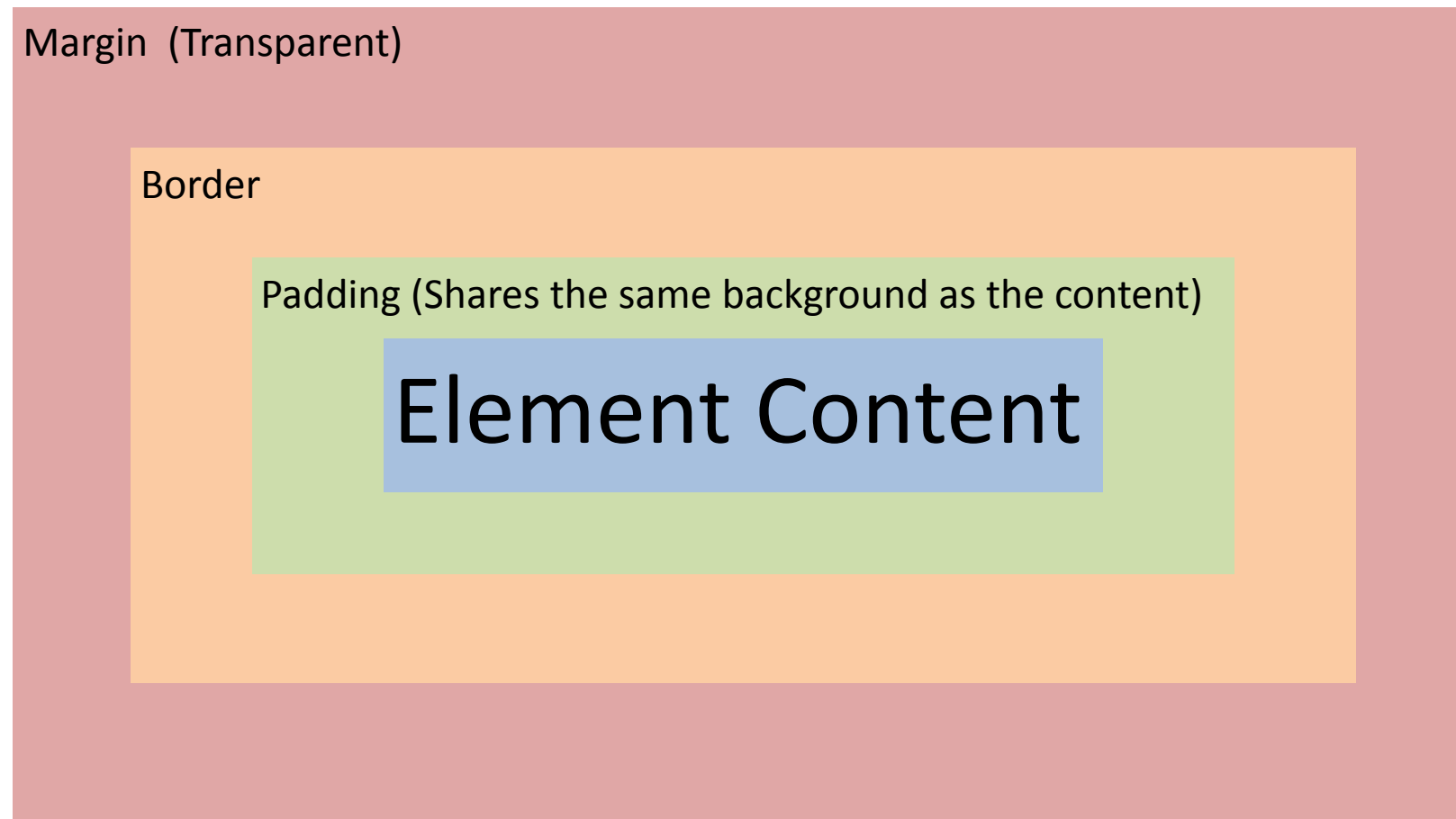
```
/* Top, left right, bottom */
```

```
margin: 10px 50px 100px;
```

```
/* Top, right, bottom, left */
```

```
margin: 10px 50px 100px 20px;
```

CSS BOX MODEL



CSS BOX MODEL EXAMPLE

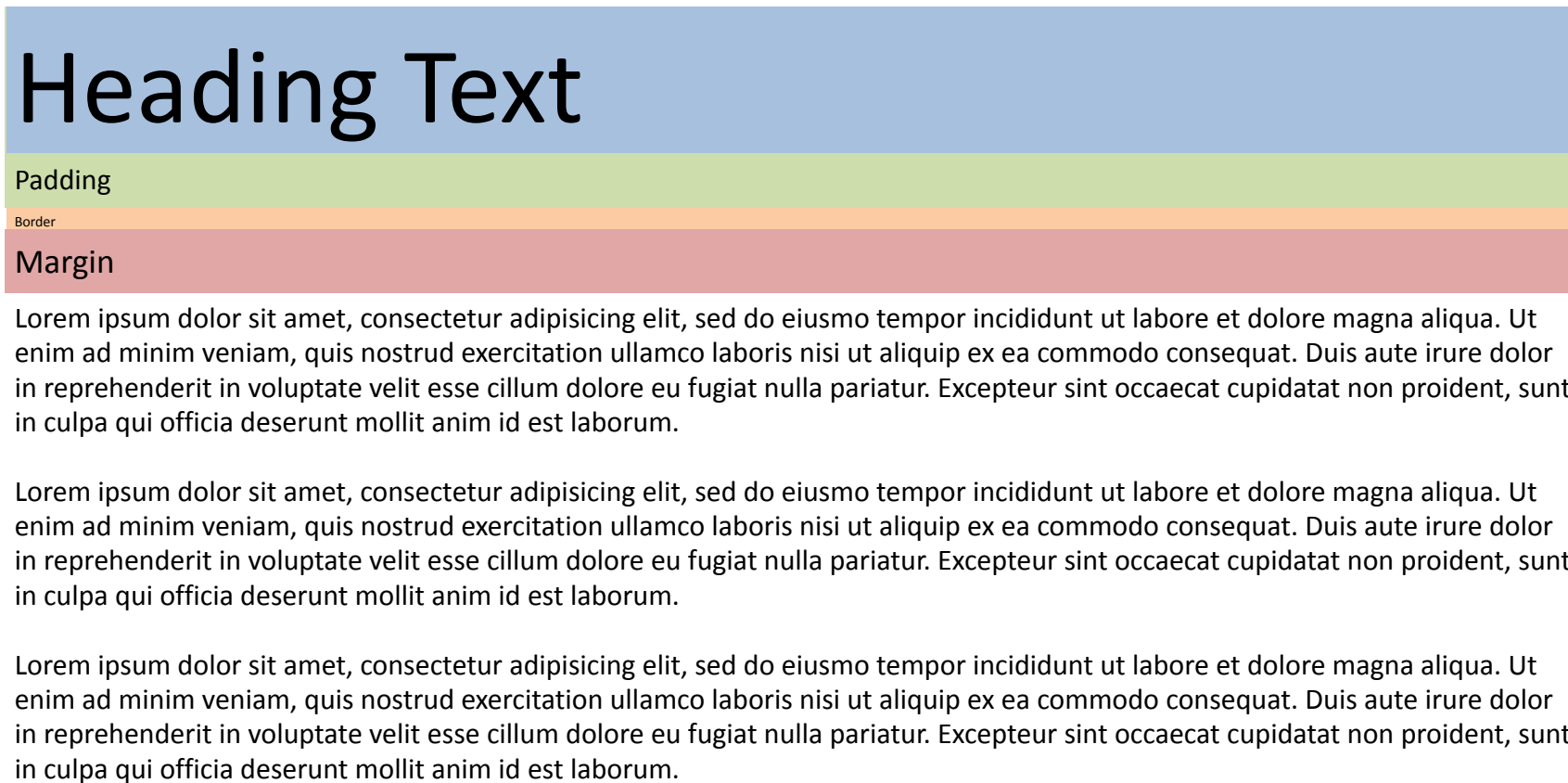
Heading Text

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

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CSS BOX MODEL EXAMPLE



CSS BOX MODEL EXAMPLE

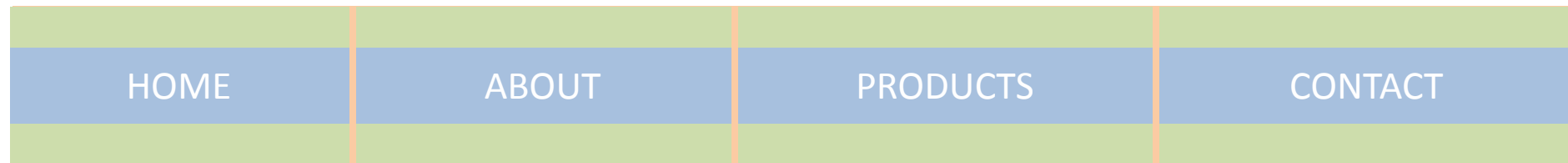
HOME

ABOUT

PRODUCTS

CONTACT

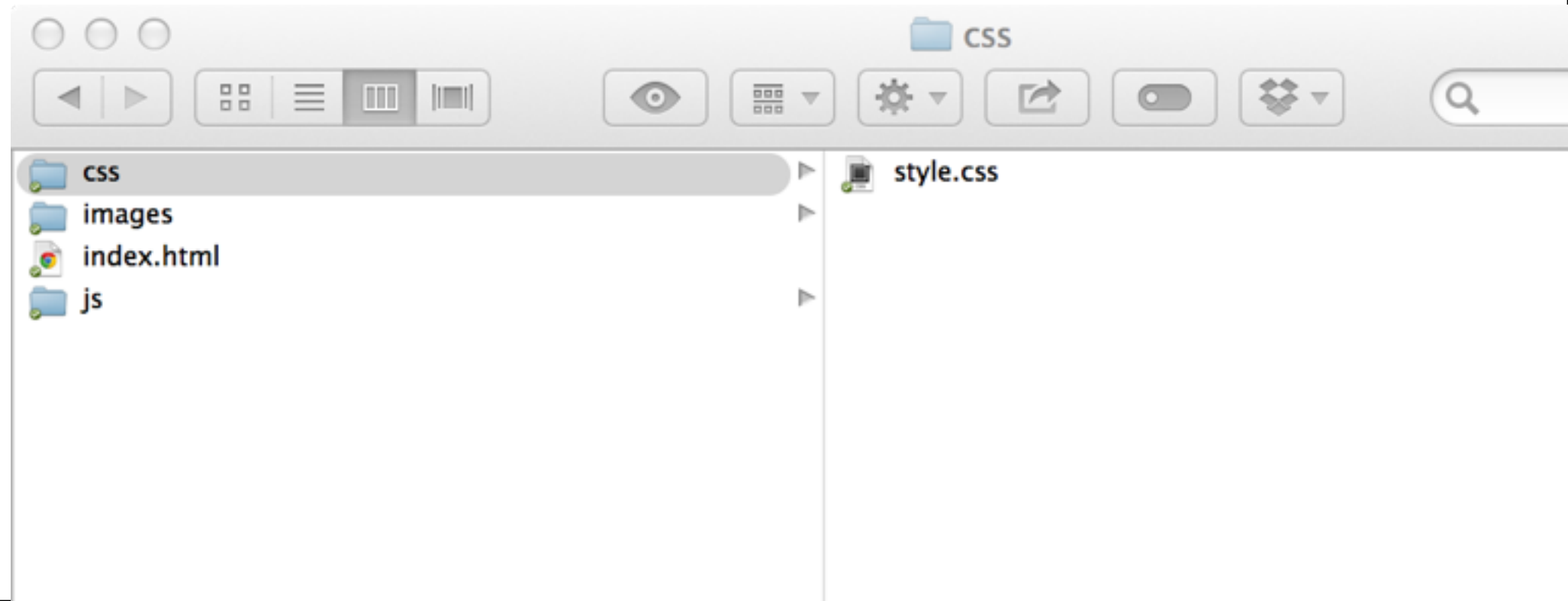
CSS BOX MODEL EXAMPLE



BUILDING A SITE LOCALLY

FILE STRUCTURE

We use lowercase file and folder names with no spaces in them. Hyphens or underscores can be used in place of spaces.



HTML DOCUMENT STRUCTURE

```
<!doctype html>
<html>
  <head>
    <!-- Document metadata goes here -->
  </head>
  <body>
    <!-- Document contents goes here -->
  </body>
</html>
```

HTML FILE PATHS

Files can be referenced from one file to another a number of ways:

Relative

```
src="../../../images/kitten.jpg"
```

Absolute

```
src="/images/background.jpg"
```

Full Qualified (aka Hotlinking)

```
src="http://www.placekitten.com/400/300"
```

HTML LINK ELEMENT

We need to use a link element to tell the browser to apply CSS to our HTML page.

```
<head>
    ...
    <link rel="stylesheet" href="css/style.css">
    ...
</head>
```

BUILD A PERSONAL SITE

Use what we've learned today to build your own person site.

It can be about anything you like! Yourself, your hobbies, your favorite things, etc.

Explore new HTML tags and CSS properties. Here are some good references:

https://developer.mozilla.org/en-US/Learn/Getting_started_with_the_web