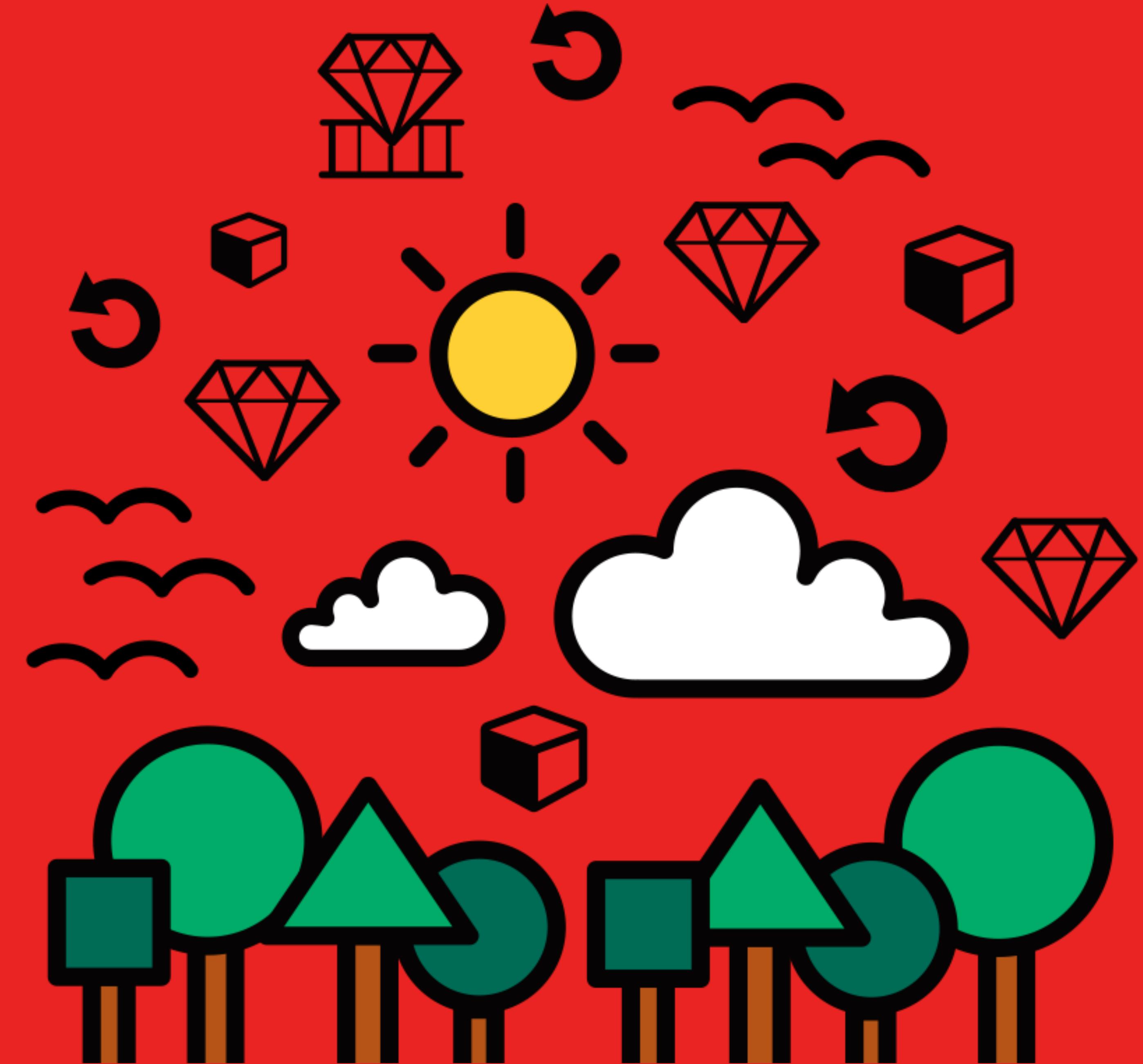


Front End

HTML & CSS



by Paul Tondeur



HTML

Language of the web browser



HTML Describes Structure

Tags:

- Headings
- Paragraphs
- Lists

index.html

`<h1>Heading</h1>`

`<p>Tags:</p>`

``

`Headings`

`Paragraphs`

`Lists`

``

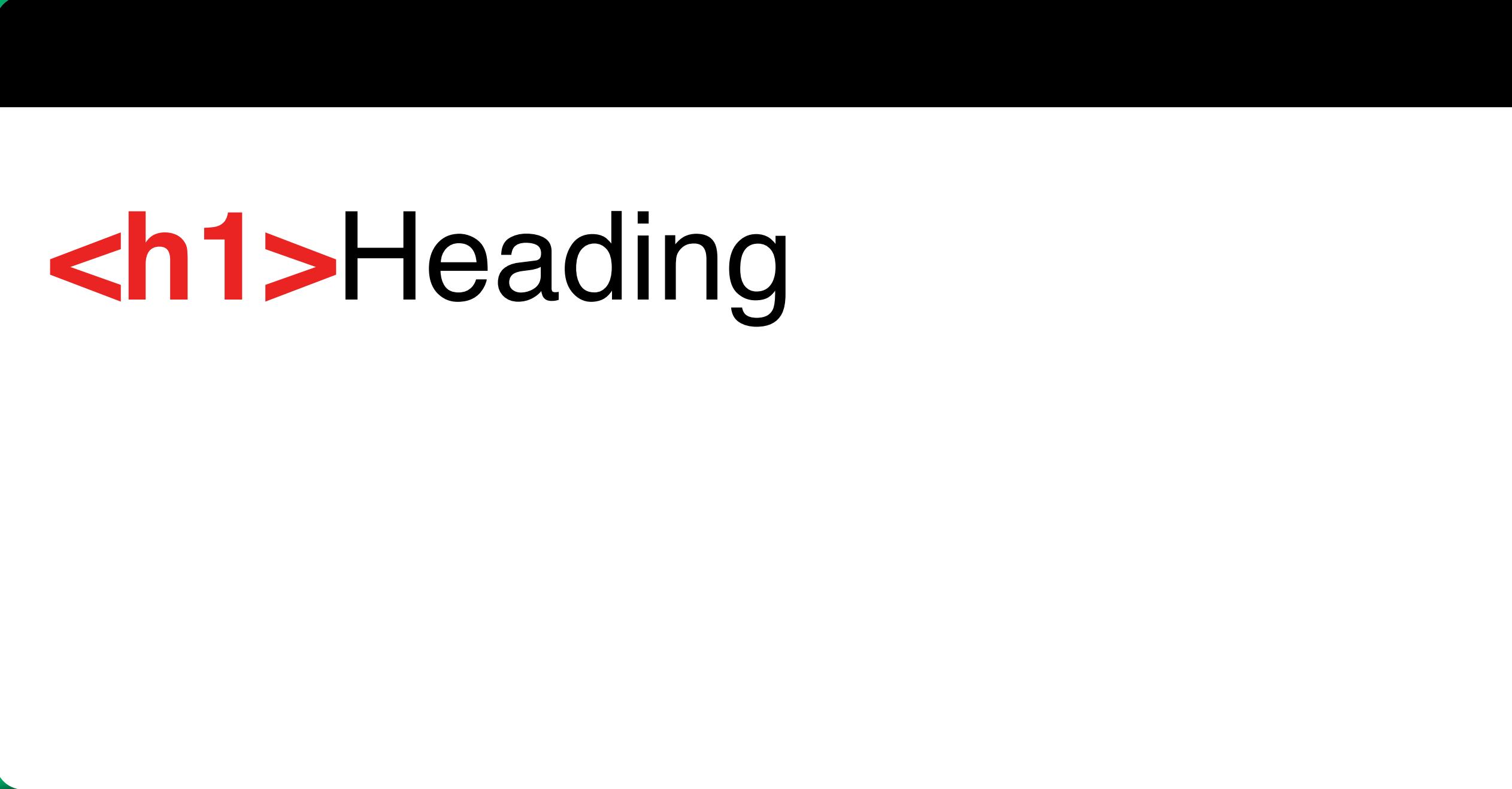
HTML Describes Markup

Bold text

Cursive text

```
<strong>Bold</strong> text  
<em>Cursive</em> text
```

Most TAGS open and close



`<h1>Heading`

Opening tag, start heading

Most TAGS open and close

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

Closing tag, stop heading

Applying TAGS

index.html

Development Bootcamp We will teach you how to code.

Browser result



Development Bootcamp We will teach you how to code.

Open a TAG...

index.html

<h1>Development Bootcamp We will teach you how to code.

Browser result



Development Bootcamp We will teach you how to code.

... and close a TAG

index.html

```
<h1>Development Bootcamp</h1>
We will teach you how to code.
```

Browser result



Development Bootcamp

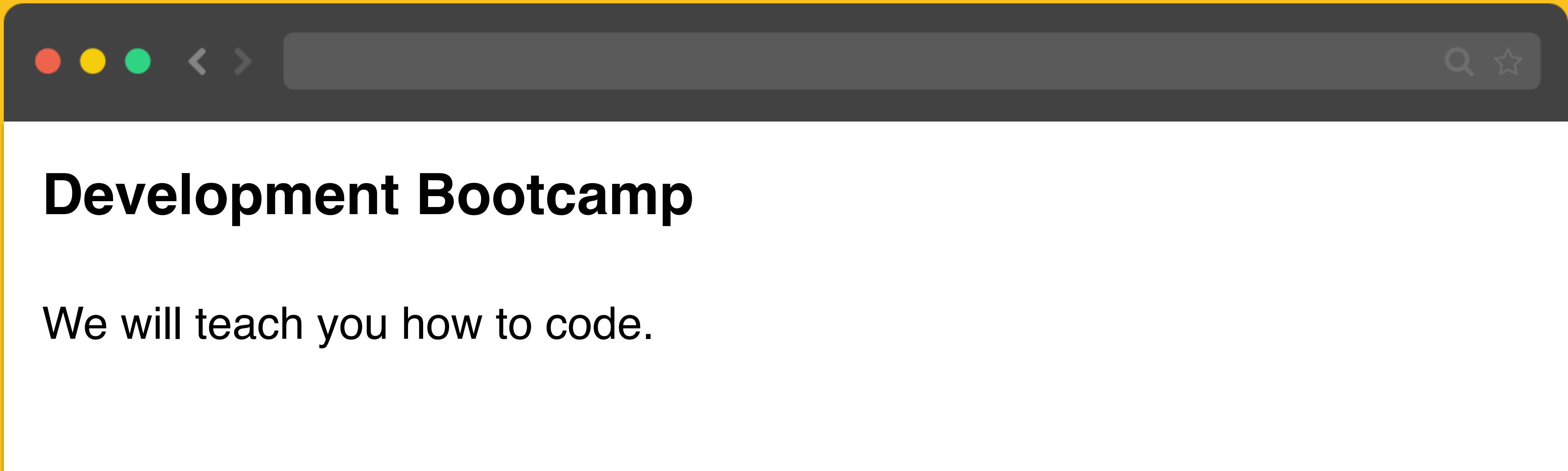
We will teach you how to code.

Another example: Paragraphs

index.html

```
<h1>Development Bootcamp</h1>
<p>We will teach you how to code.</p>
```

Browser result

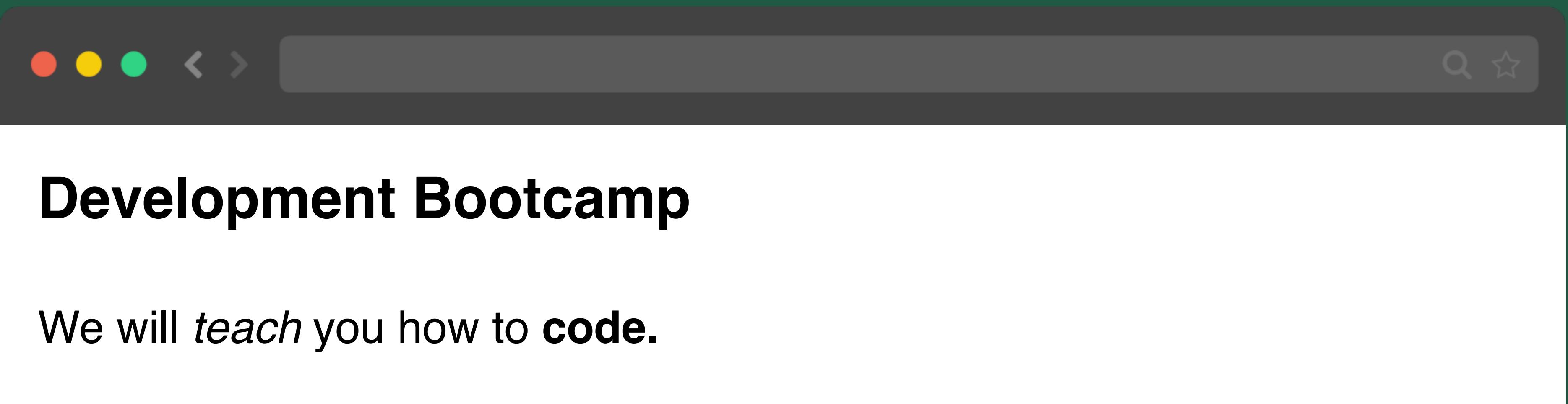


We can use tags within tags

index.html

```
<h1>Development Bootcamp</h1>
<p>
  We will <em> teach </em>
  you how to <strong>code.</strong>
</p>
```

Browser result

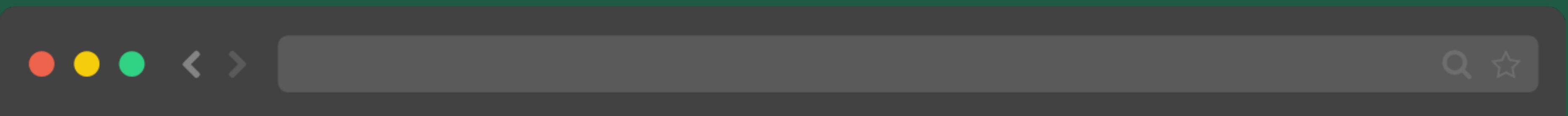


“White Space” is ignored!

index.html

```
<h1>Development Bootcamp</h1>
<p>
  We will <em> teach </em>
  you how to <strong>code.</strong>
</p>
```

Browser result



Development Bootcamp

We will *teach* you how to **code**.

LISTS

index.html

```
<p>HTML is:</p>
<ul>
  <li>Fun</li>
  <li>Easy</li>
</ul>
```

Browser result



HTML is:

- Fun
- Easy

Ordered LISTS

index.html

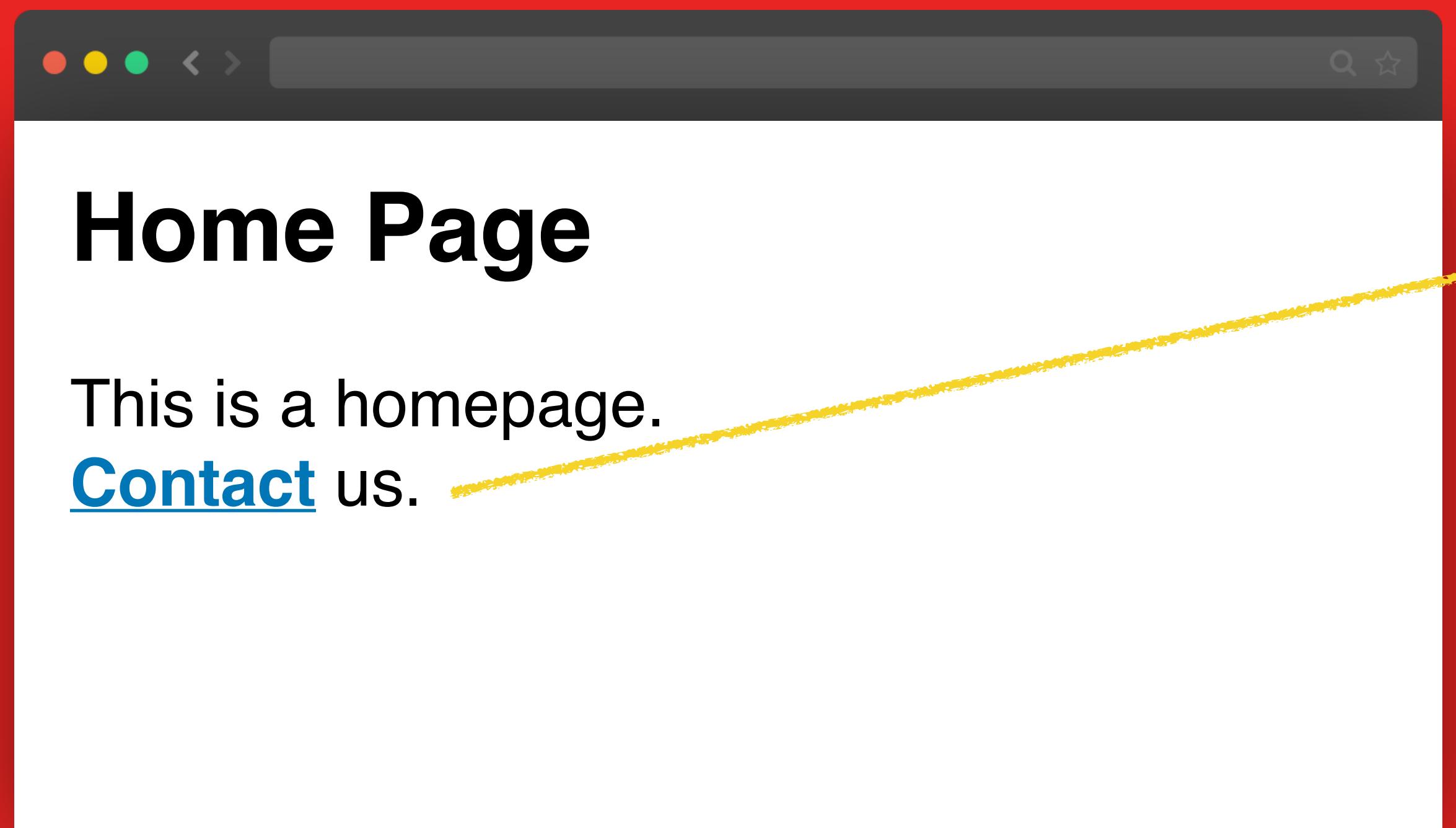
```
<p>HTML is:</p>
<ol>
  <li>Fun</li>
  <li>Easy</li>
</ol>
```

Browser result

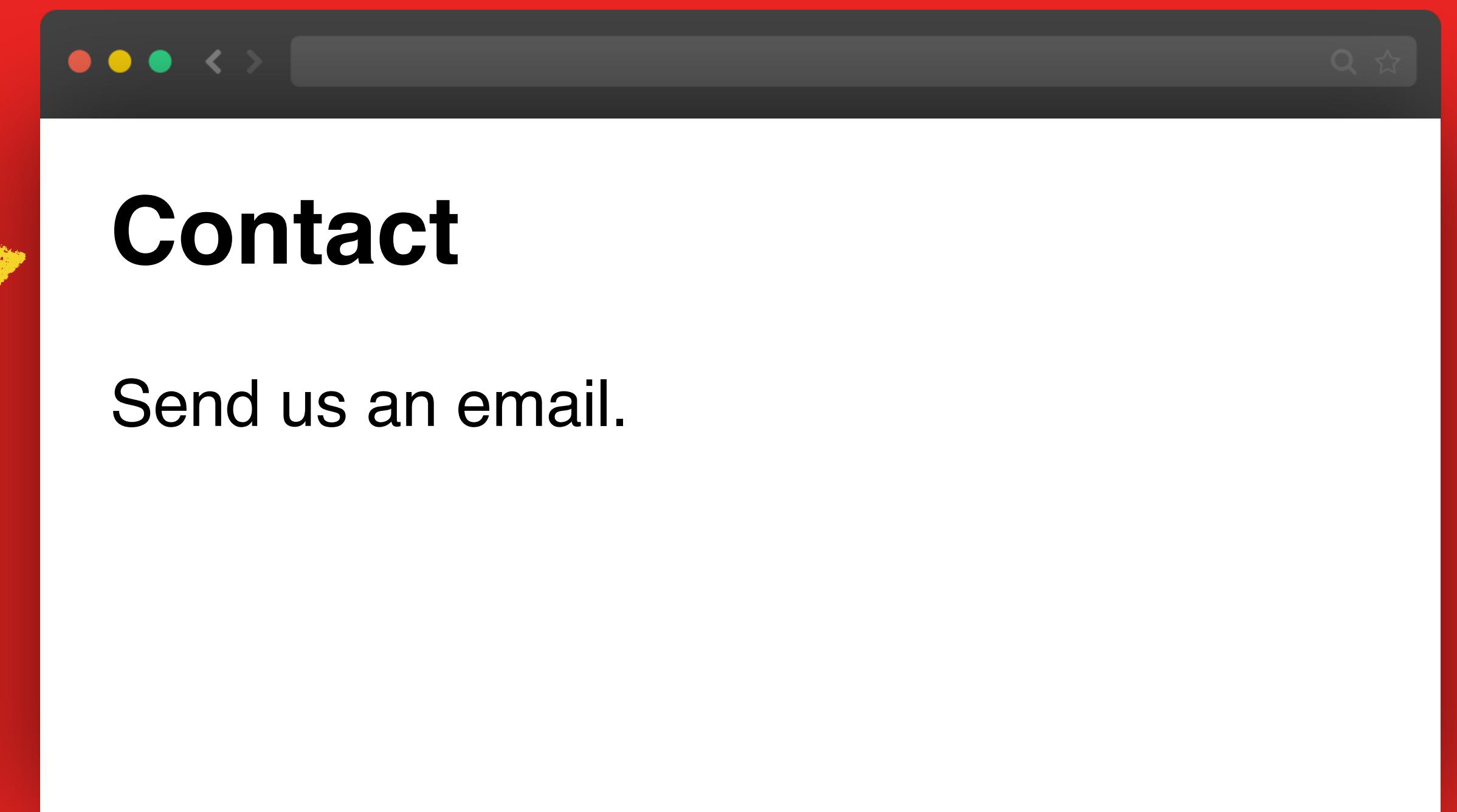
index.html

```
HTML is:
1. Fun
2. Easy
```

Link pages together



home.html



contact.html



Linking pages together

home.html

<a>Contact us.

Browser result



Contact us.

Setting the destination of a link

home.html

```
<a href="contact.html">  
Contact  
</a> us.
```

Browser result



[Contact](#) us.

Tag Attribute

home.html

```
<a href="contact.html">  
Contact  
</a> us.
```

Browser result



[Contact us.](#)

Images

Here's a picture of a cat!

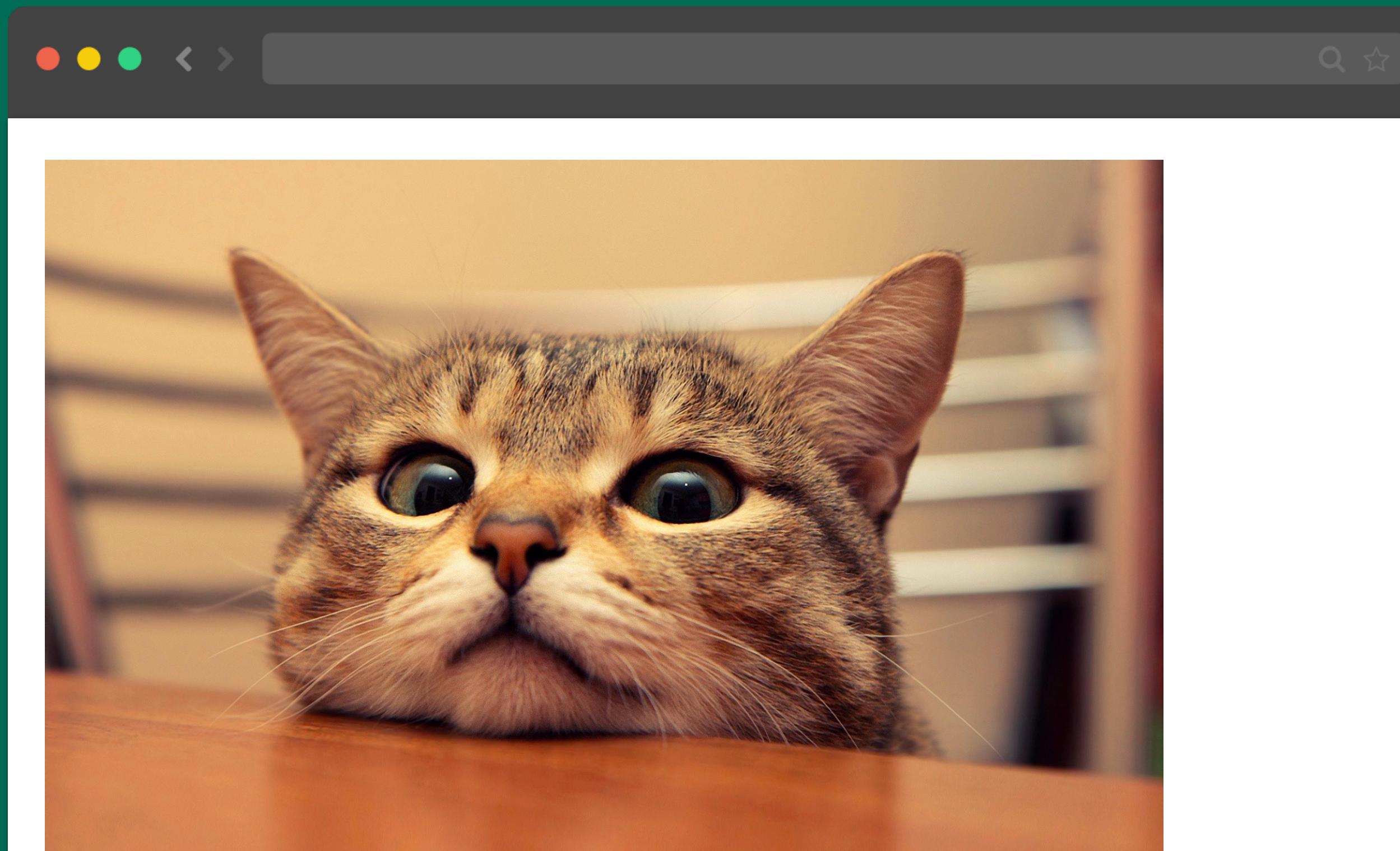
cat.jpg



Images are like links

index.html

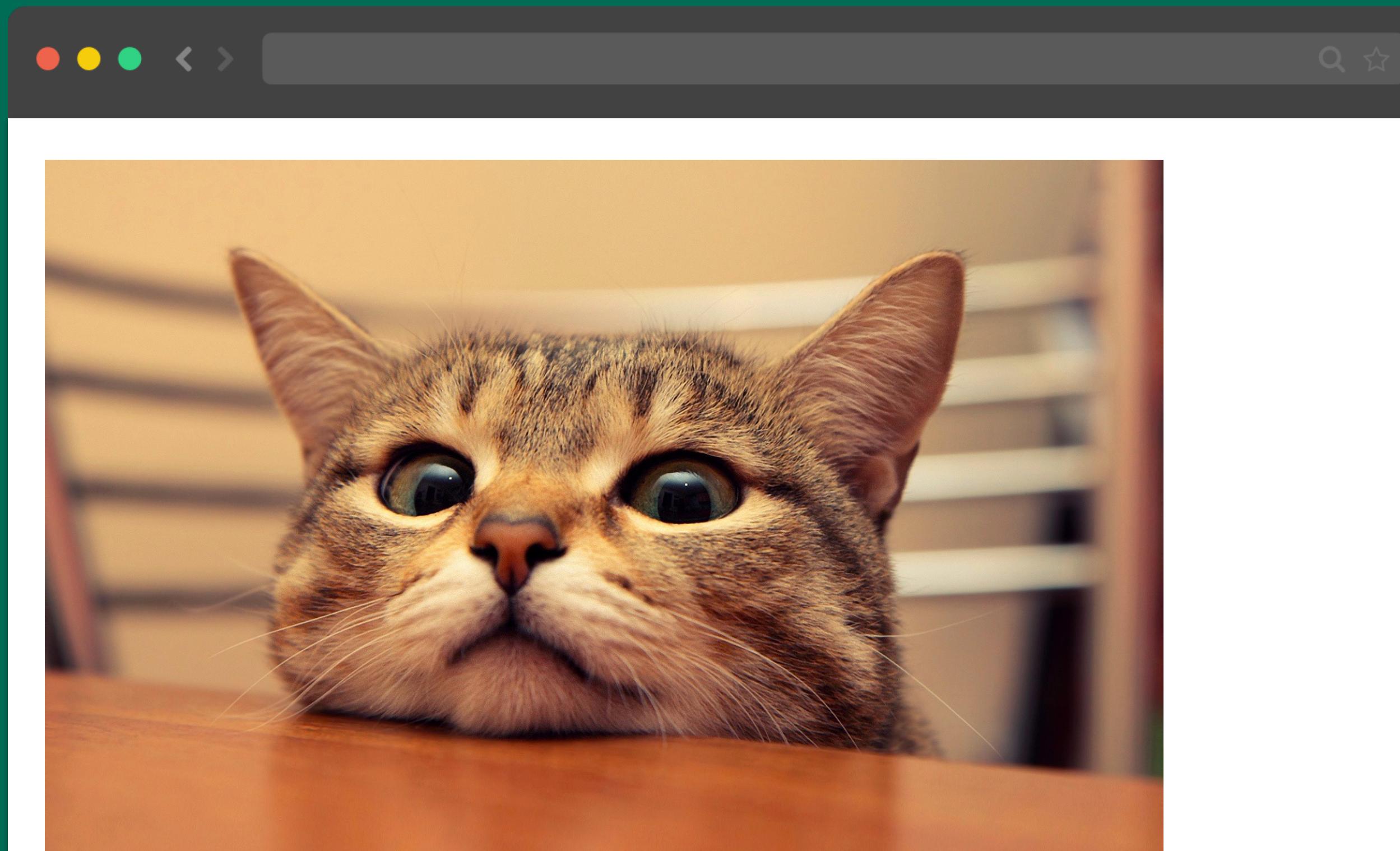
```
Cat?</img>
```



Images are like links, or are they?

index.html

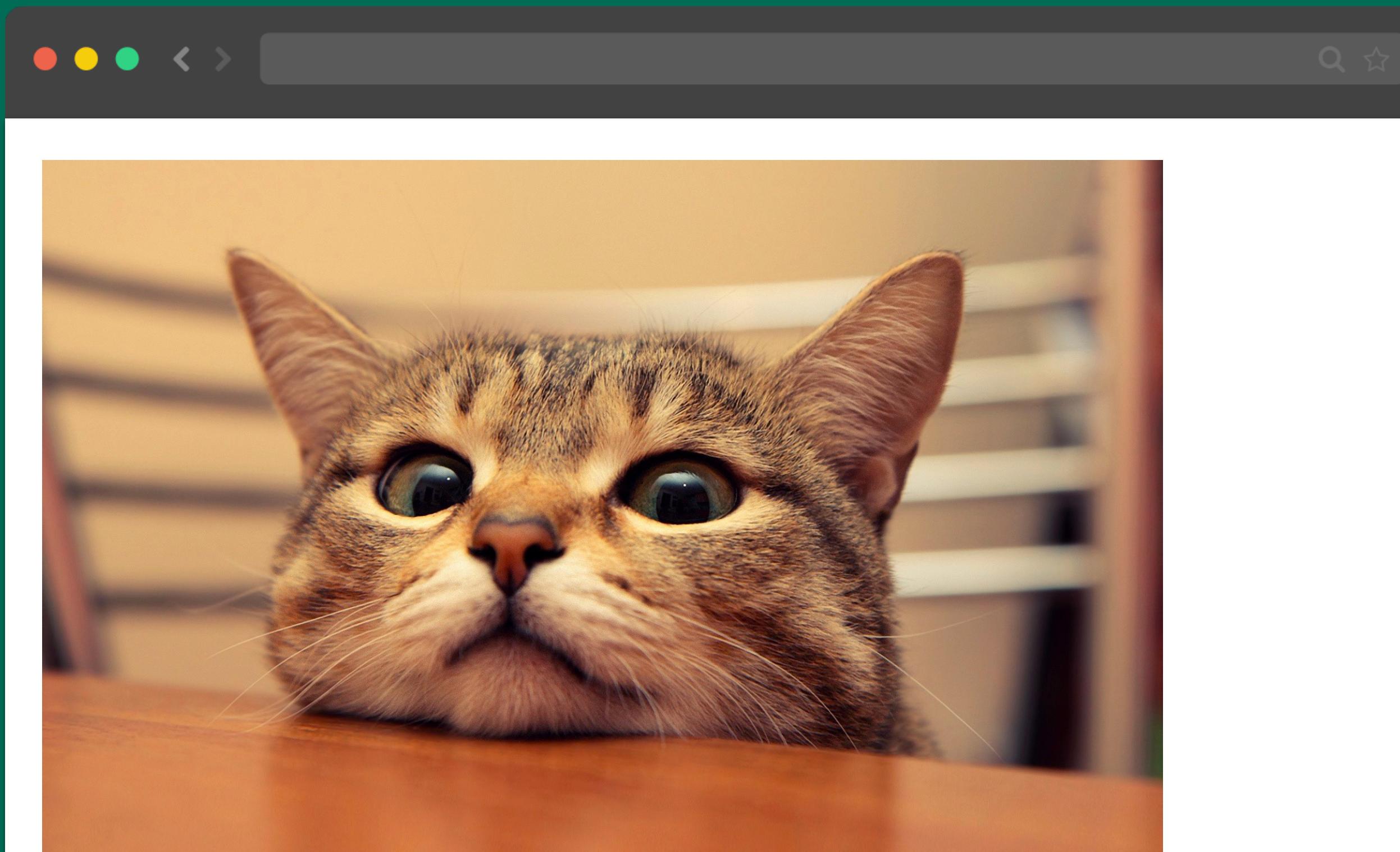
```
Cat?</img>
```



Images have no closing tag!

index.html

```
Cat?</img>
```

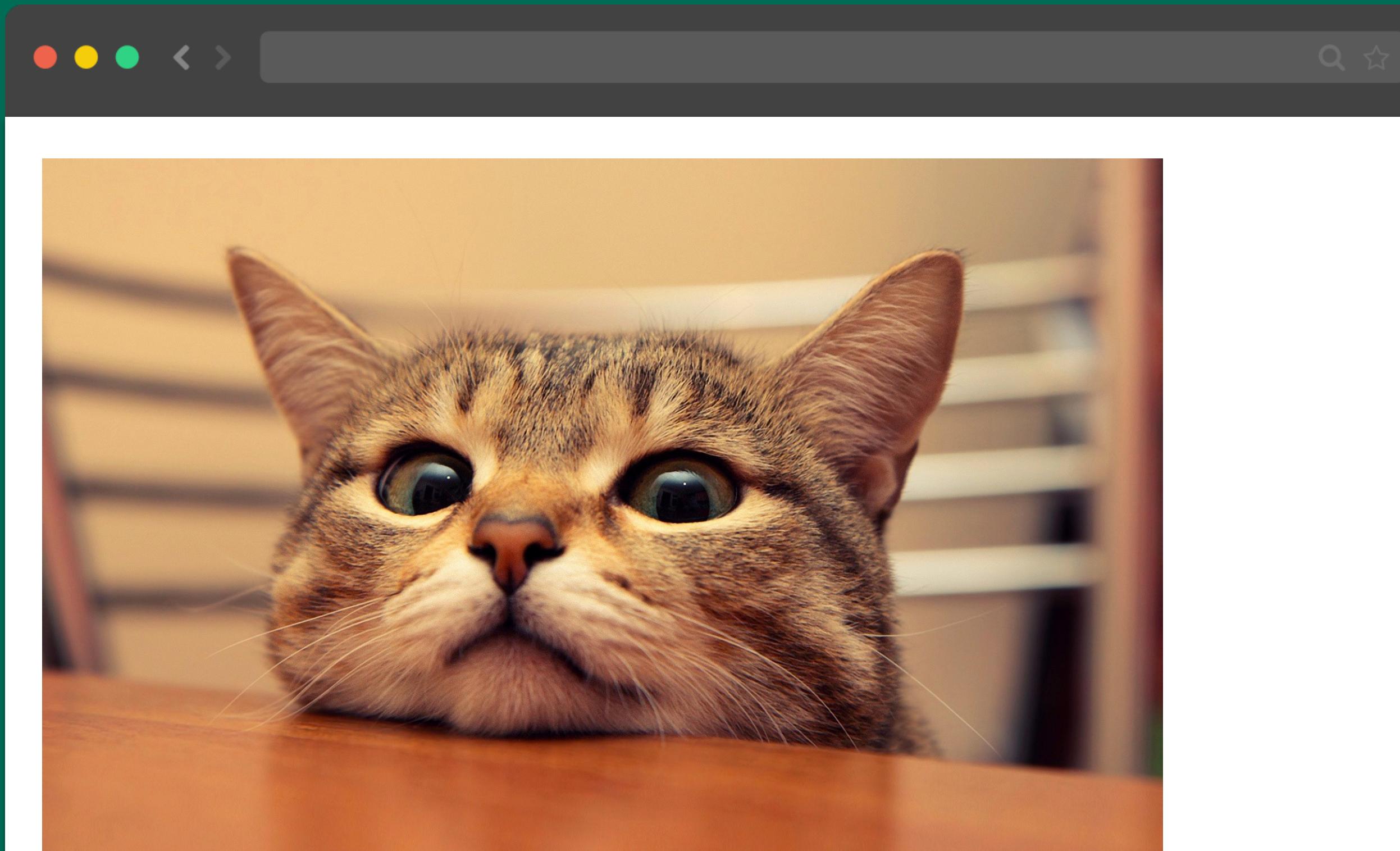


Images have no closing tag!

index.html

```

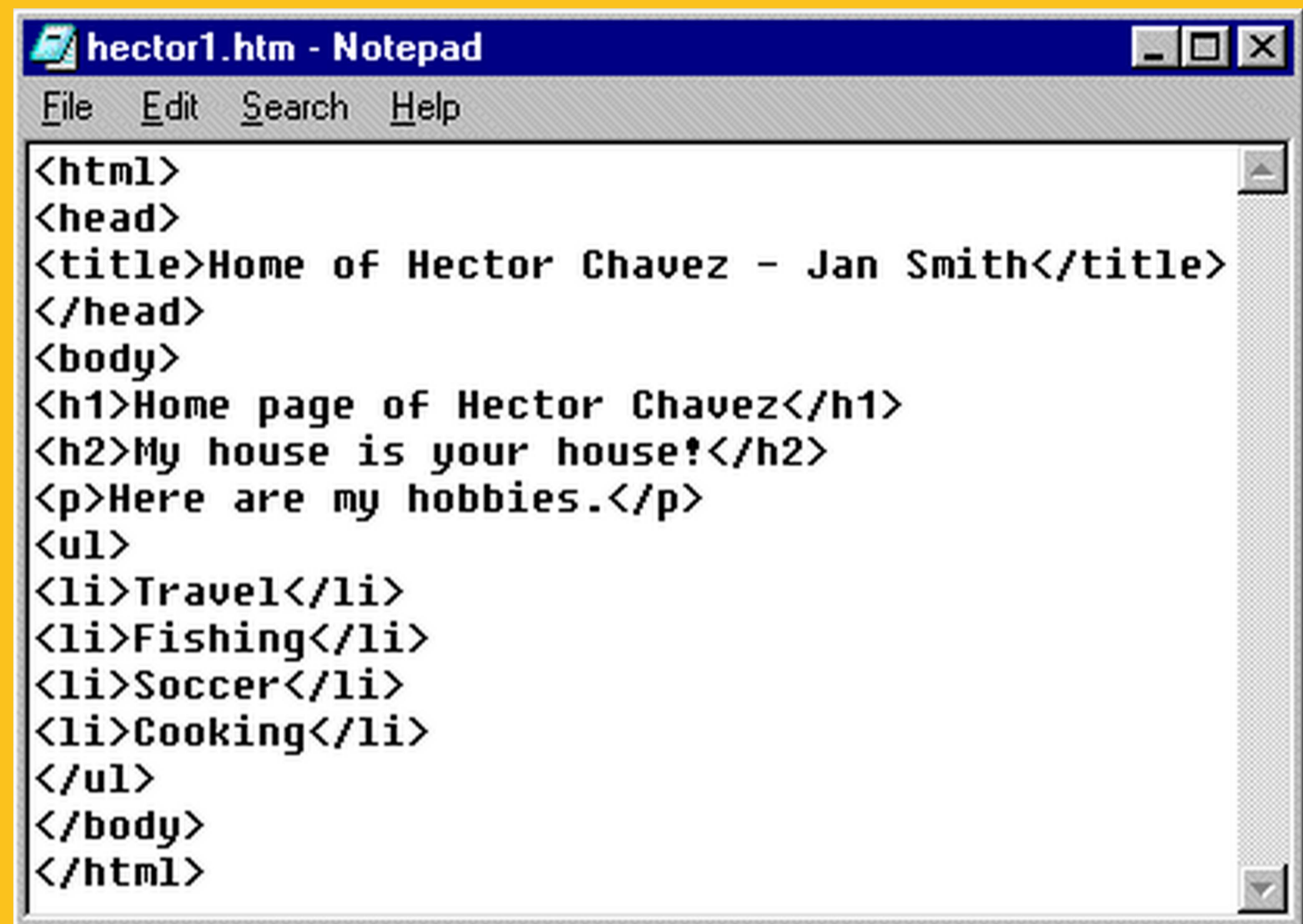
```



Tools

Where do we write HTML down?

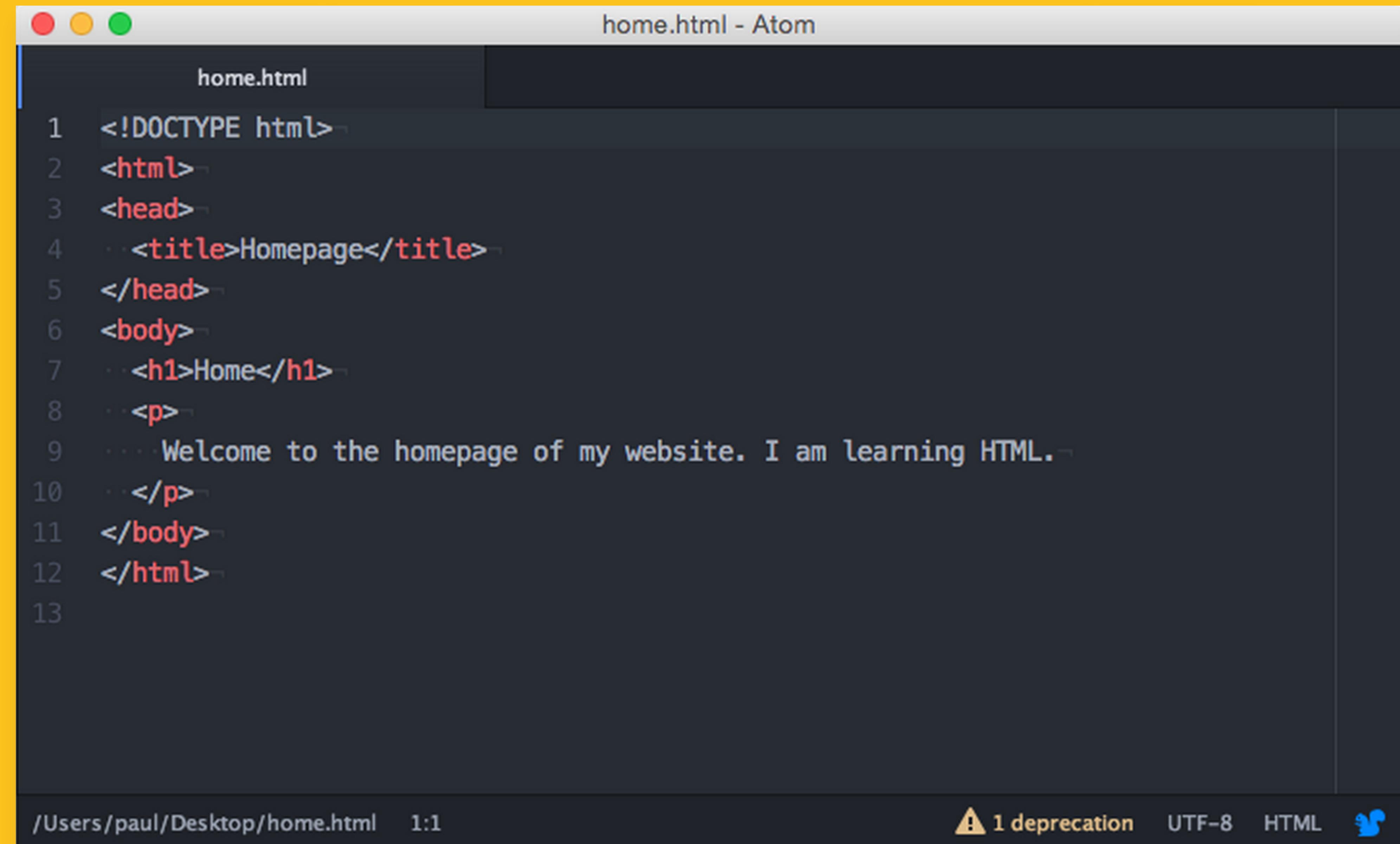
Notepad?



A screenshot of a Windows Notepad window titled "hector1.htm - Notepad". The window contains the following HTML code:

```
<html>
<head>
<title>Home of Hector Chavez - Jan Smith</title>
</head>
<body>
<h1>Home page of Hector Chavez</h1>
<h2>My house is your house!</h2>
<p>Here are my hobbies.</p>
<ul>
<li>Travel</li>
<li>Fishing</li>
<li>Soccer</li>
<li>Cooking</li>
</ul>
</body>
</html>
```

Atom



The screenshot shows the Atom code editor interface. The title bar reads "home.html - Atom". The main area displays the content of the "home.html" file. The code is color-coded: blue for numbers, red for HTML tags, and grey for the text within the tags. The content of the file is:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Homepage</title>
5 </head>
6 <body>
7   <h1>Home</h1>
8   <p>
9     Welcome to the homepage of my website. I am learning HTML.
10  </p>
11 </body>
12 </html>
```

The status bar at the bottom shows the file path "/Users/paul/Desktop/home.html" and the line number "1:1". It also includes icons for deprecation (warning), encoding ("UTF-8"), file type ("HTML"), and a squirrel icon.

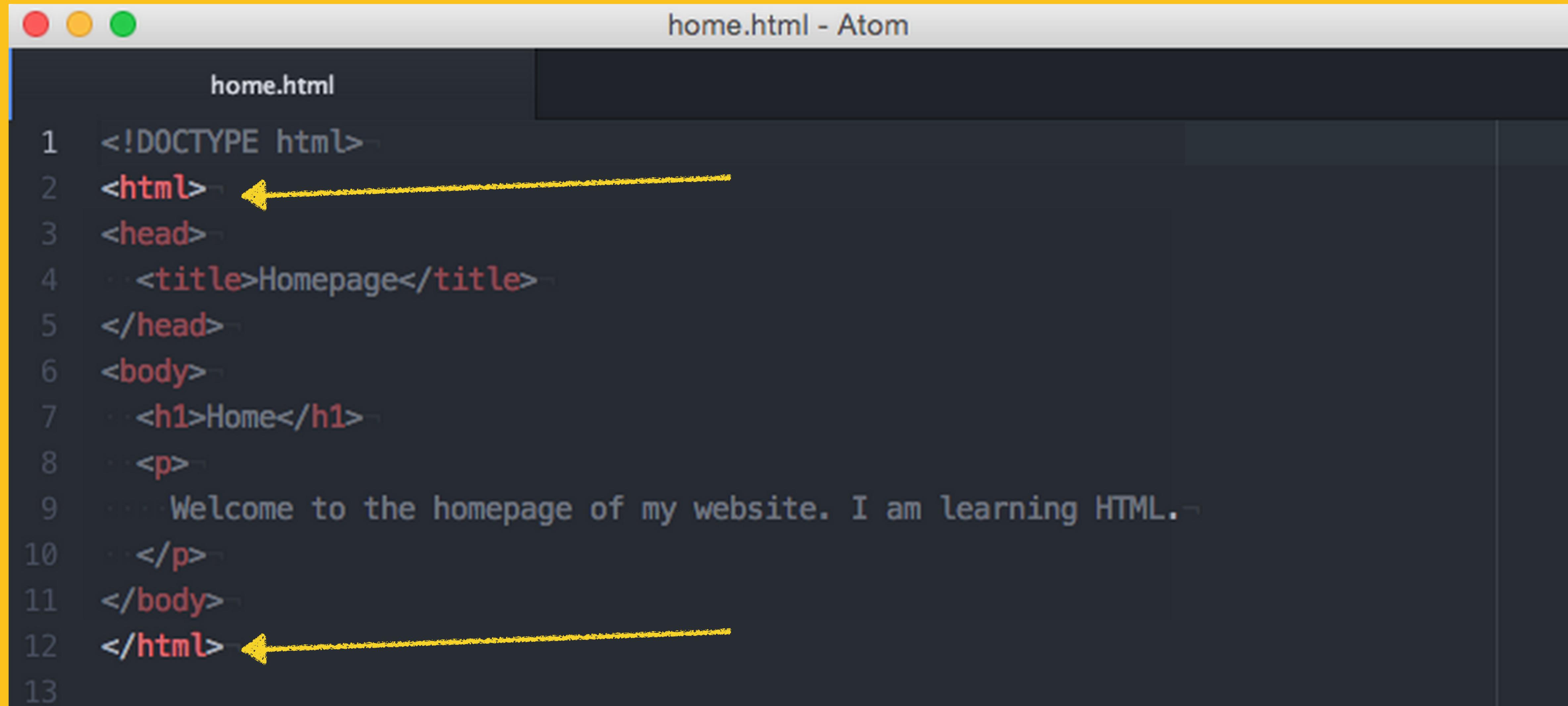
HTML file structure - DOCTYPE

home.html - Atom

home.html

```
1 <!DOCTYPE html> ↑
2 <html>
3 <head>
4   <title>Homepage</title>
5 </head>
6 <body>
7   <h1>Home</h1>
8   <p>
9     Welcome to the homepage of my website. I am learning HTML.
10  </p>
11 </body>
12 </html>
```

HTML file structure - HTML

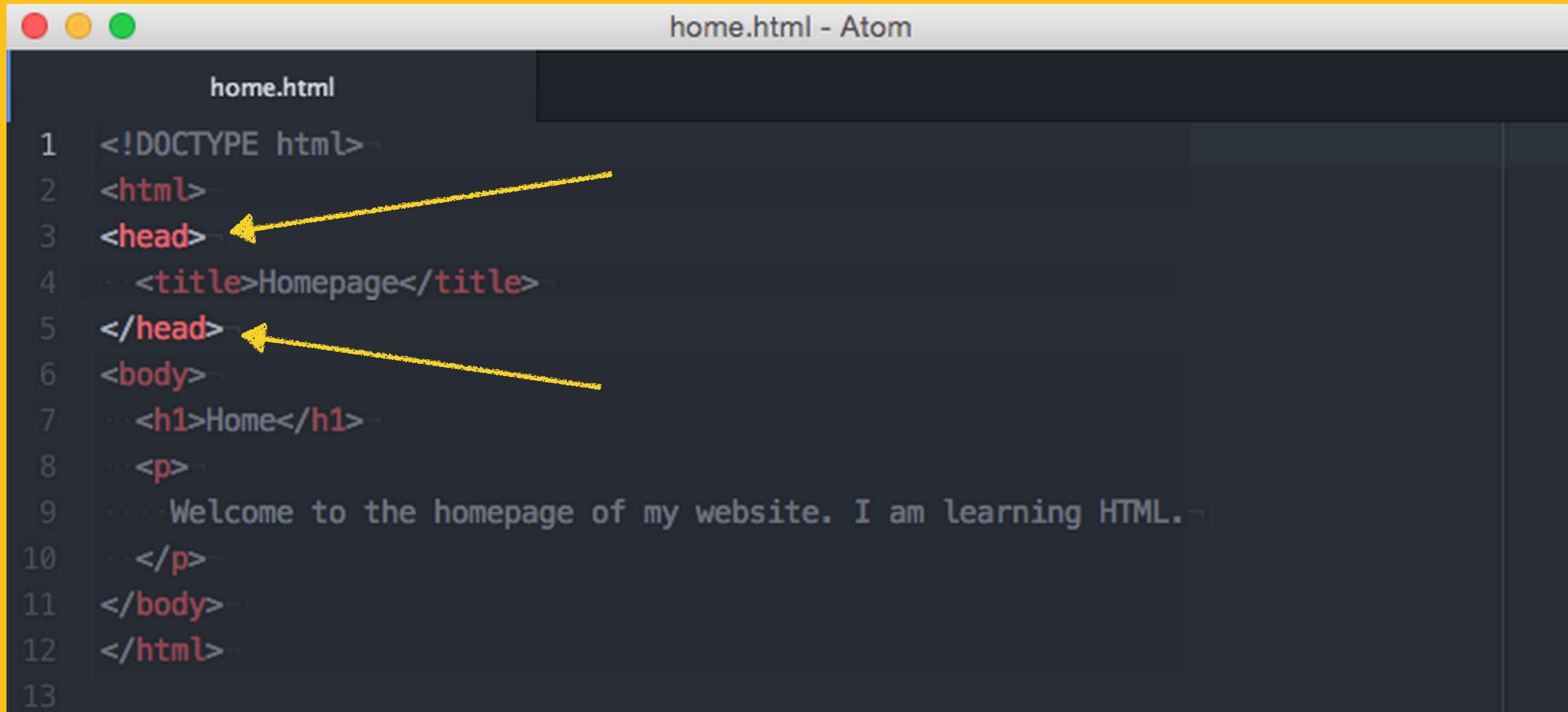


A screenshot of the Atom code editor showing an HTML file named "home.html". The file contains the following code:

```
1  <!DOCTYPE html>
2  <html> ←
3  <head>
4    <title>Homepage</title>
5  </head>
6  <body>
7    <h1>Home</h1>
8    <p>
9      Welcome to the homepage of my website. I am learning HTML.
10   </p>
11   </body>
12 </html> ←
```

Two yellow arrows point to the opening and closing `<html>` tags, highlighting the root element of the document structure.

HTML file structure - Head

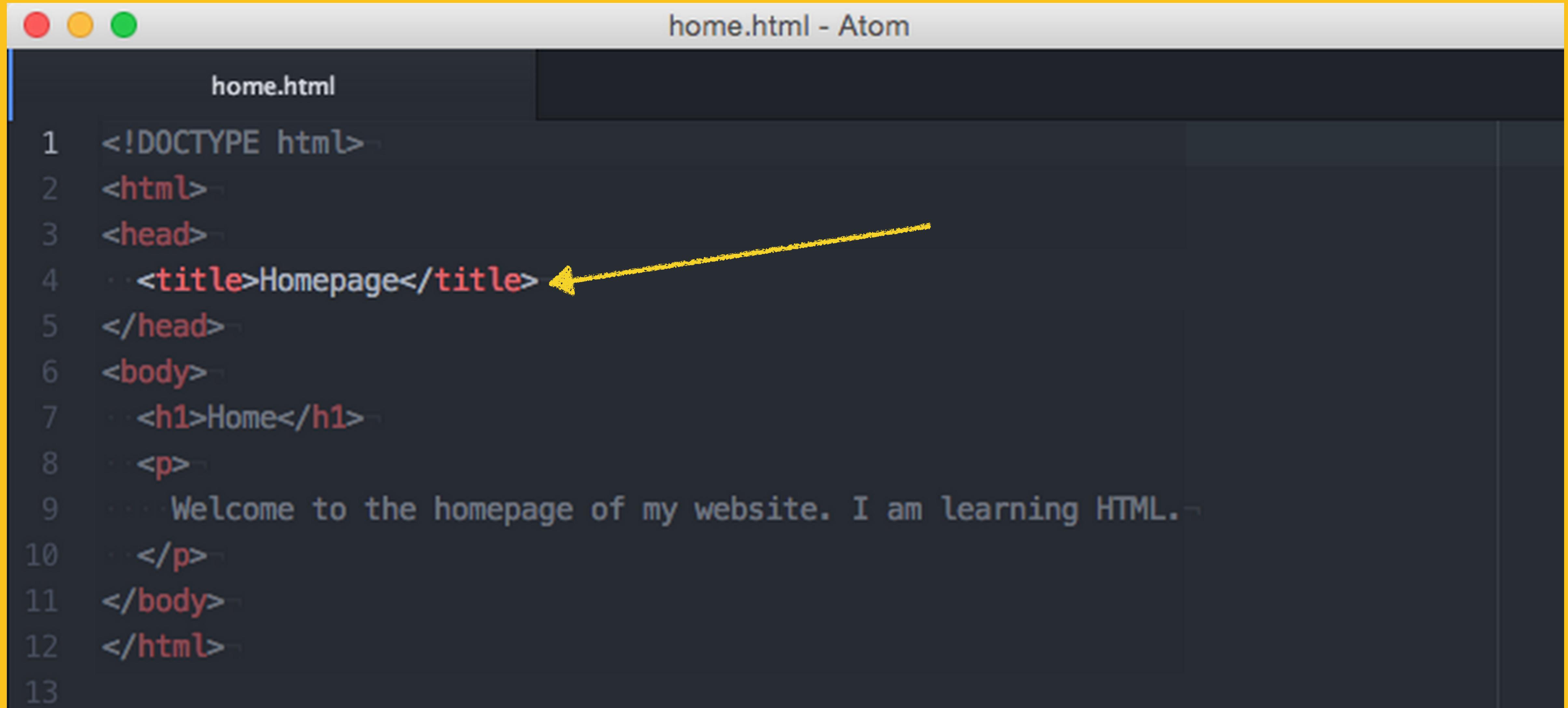


The screenshot shows the Atom code editor with a dark theme. The file is named "home.html". The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head> ←
4   <title>Homepage</title>
5 </head> ←
6 <body>
7   <h1>Home</h1>
8   <p>
9     Welcome to the homepage of my website. I am learning HTML.
10  </p>
11 </body>
12 </html>
```

Two yellow arrows point from the left margin to the opening tags of the `<head>` and `<body>` sections.

HTML file structure - Title

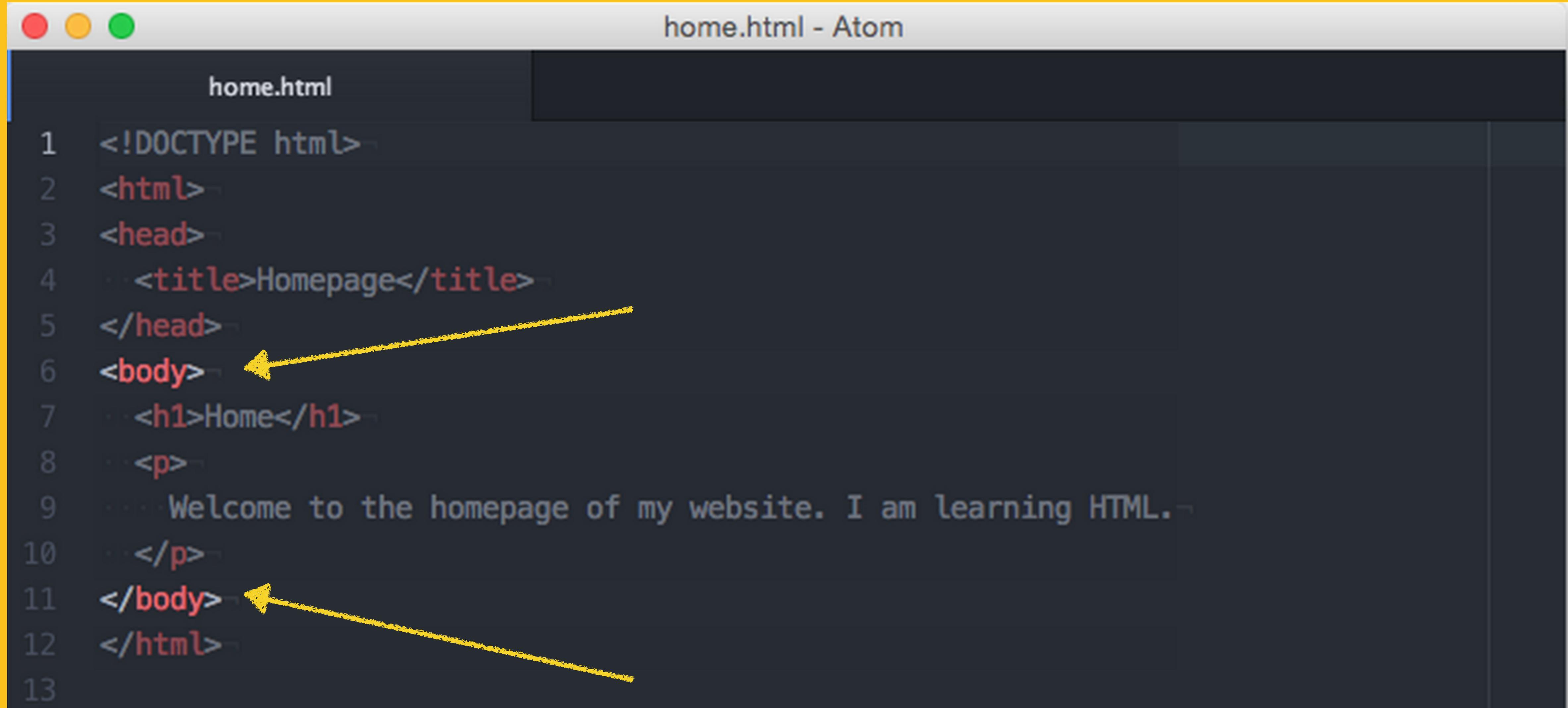


A screenshot of the Atom code editor showing the file `home.html`. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Homepage</title> ←
5 </head>
6 <body>
7   <h1>Home</h1>
8   <p>
9     Welcome to the homepage of my website. I am learning HTML.
10  </p>
11 </body>
12 </html>
```

A yellow arrow points to the `<title>Homepage</title>` line.

HTML file structure - Body

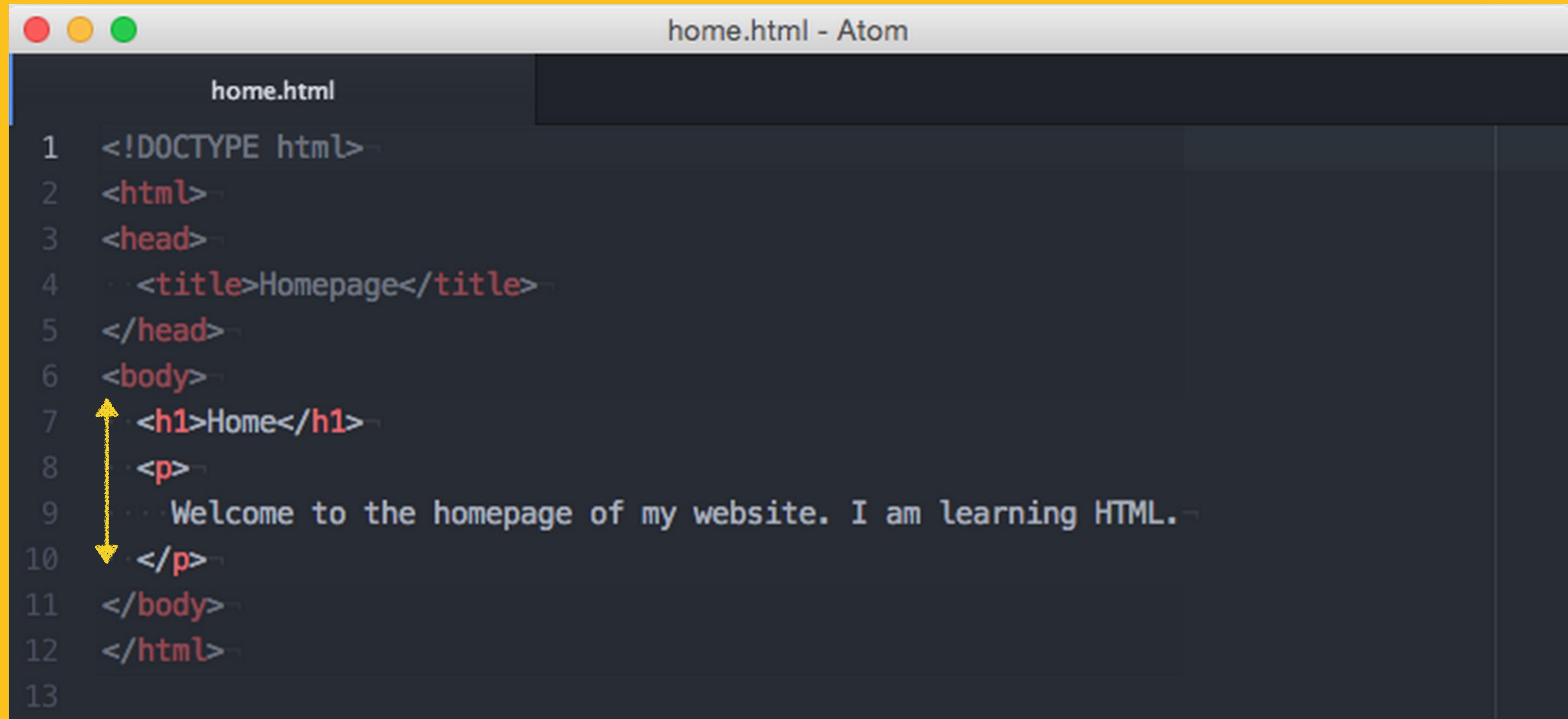


The screenshot shows an Atom editor window titled "home.html - Atom". The file content is an HTML document with the following structure:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Homepage</title>
5 </head>
6 <body> ←
7   <h1>Home</h1>
8   <p>
9     Welcome to the homepage of my website. I am learning HTML.
10    </p>
11  </body> ←
12 </html>
```

Two yellow arrows point to the opening tag "**<body>**" at line 6 and the closing tag "**</body>**" at line 11, highlighting the main content area of the HTML document.

HTML file structure - Body Content

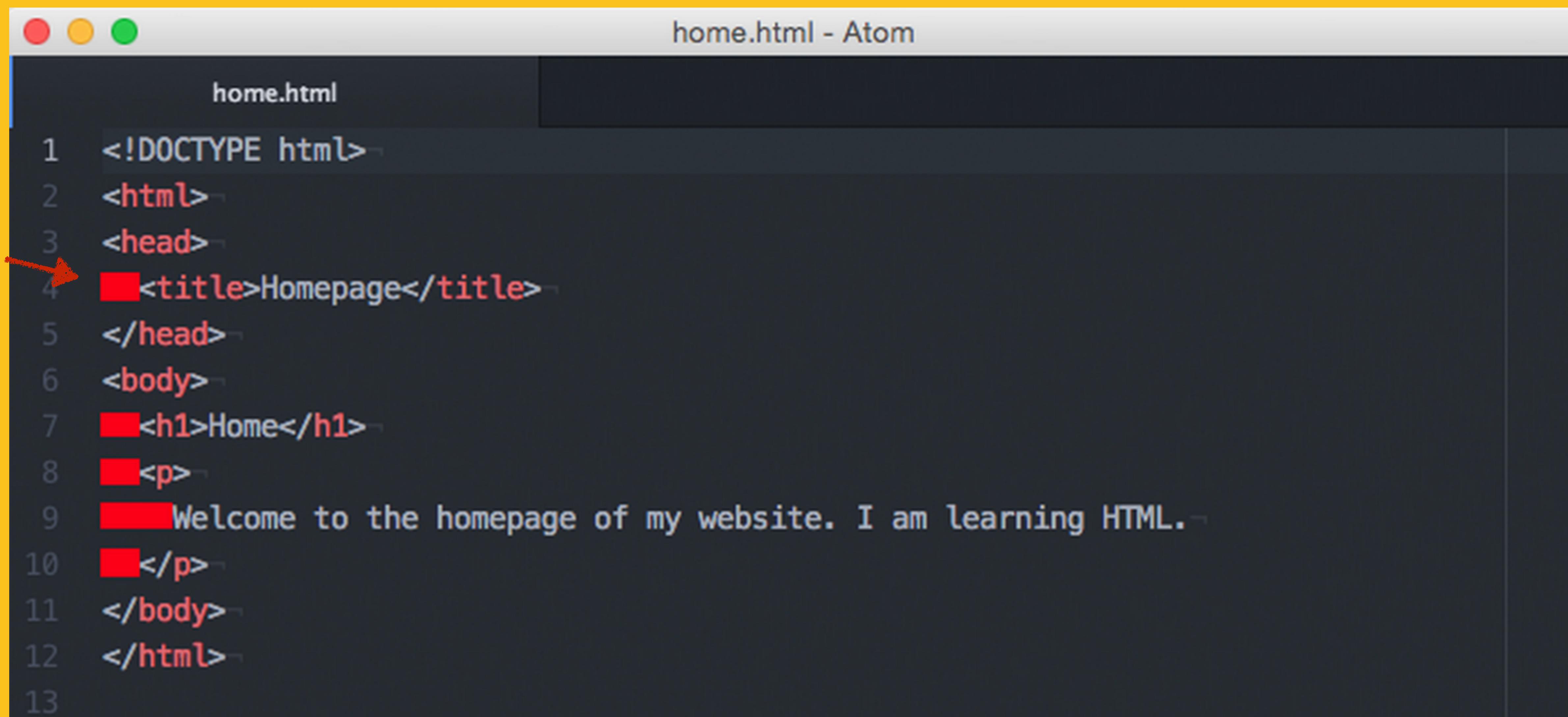


home.html - Atom

home.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Homepage</title>
5 </head>
6 <body>
7   <h1>Home</h1>
8   <p>
9     Welcome to the homepage of my website. I am learning HTML.
10  </p>
11 </body>
12 </html>
```

Indentation



The screenshot shows the Atom code editor interface with a dark theme. A file named "home.html" is open. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Homepage</title>
5 </head>
6 <body>
7   <h1>Home</h1>
8   <p>
9     Welcome to the homepage of my website. I am learning HTML.
10  </p>
11 </body>
12 </html>
```

A red arrow points to the opening tag of the title element at line 4. The entire code is highlighted with red, except for the numbers and the closing tag at line 12.

WORKSHOP

HTML



CSS

Brings style to your page



CSS describes how HTML looks

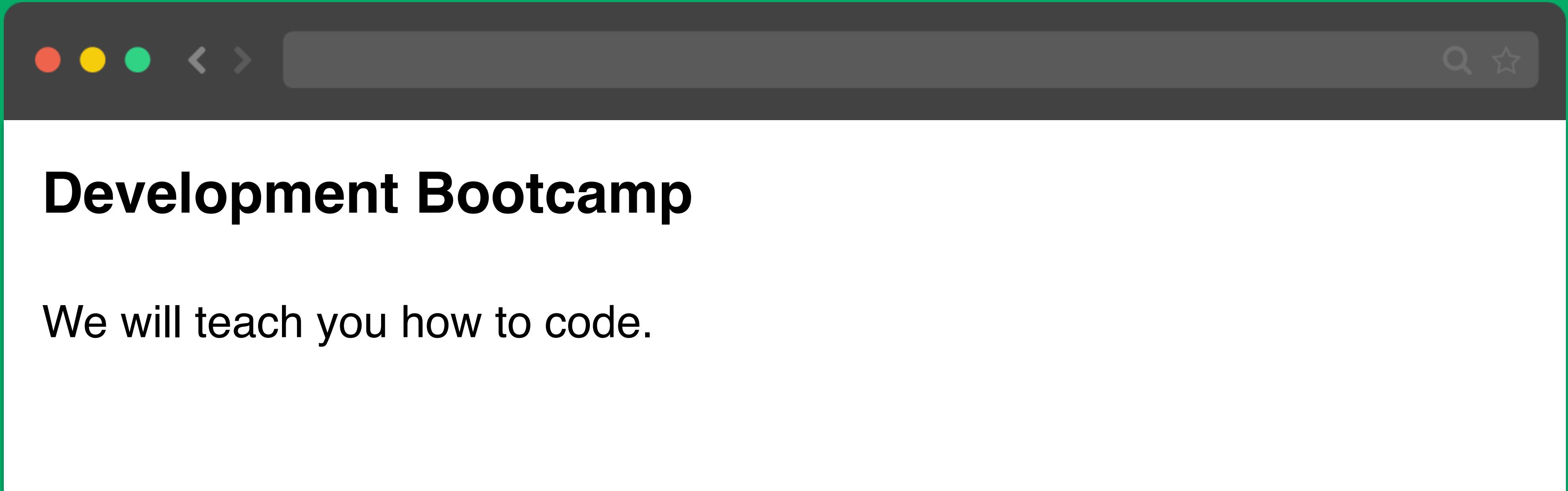
- color and background
- alignment
- font
- height and width
- padding and margin

Define how tags are styled

index.html

```
<h1>Development Bootcamp</h1>
<p>We will teach you how to code.</p>
```

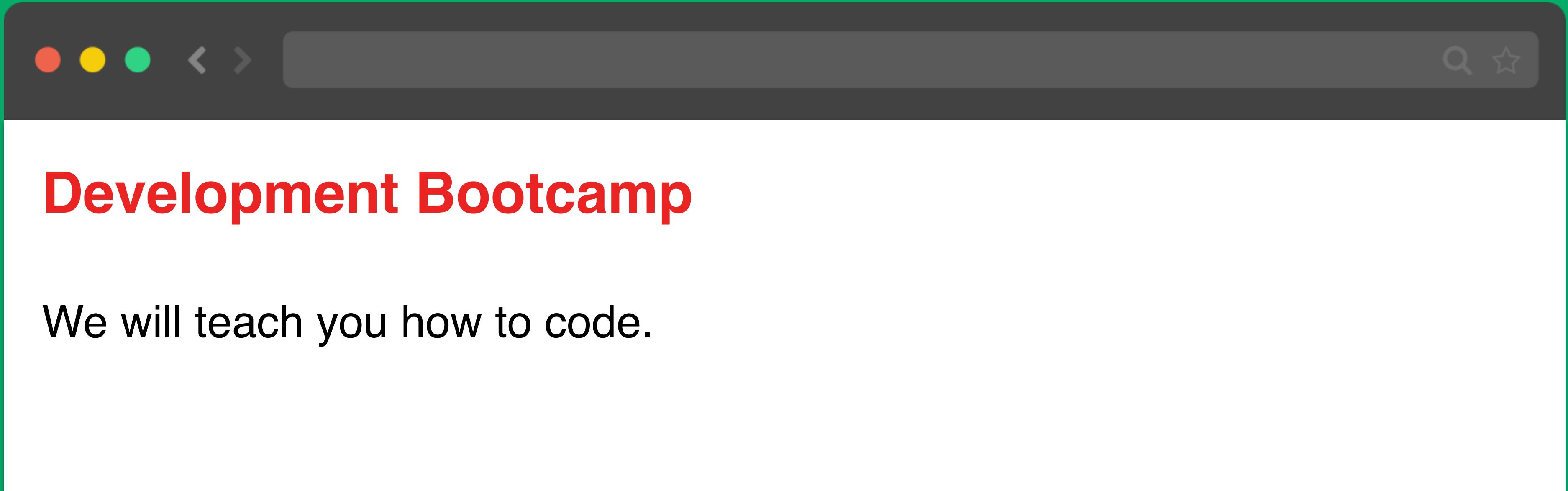
Browser result



Define color

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

Browser result



Adding styling to your HTML

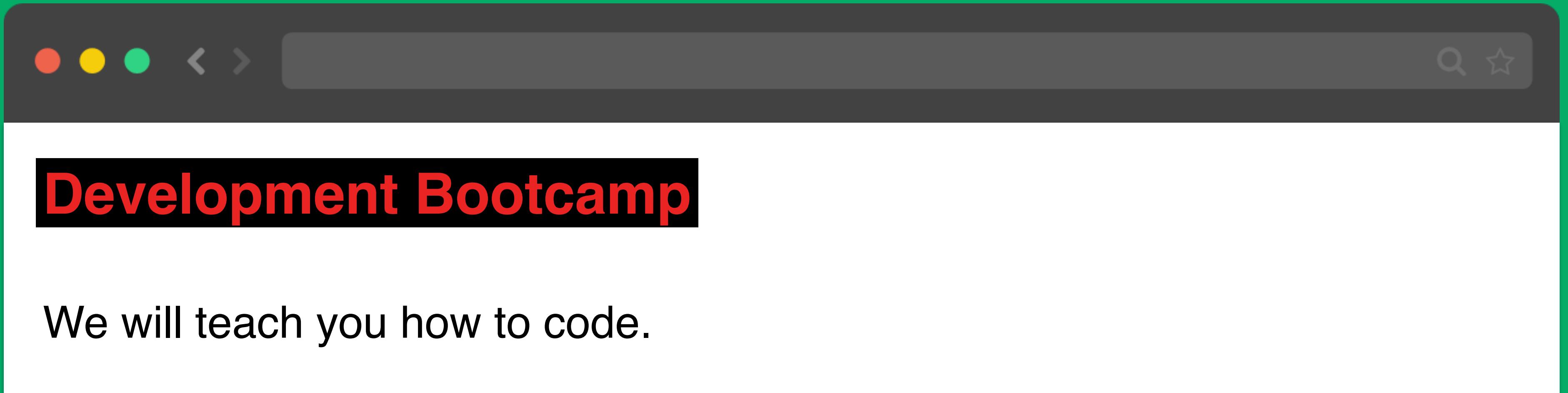
home.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Home</title>
  <style>
    h1 {
      color: red;
    }
  </style>
</head>
```

Define background color

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

Browser result



There are millions of colors

#ff0000

#00ff00

#0000ff

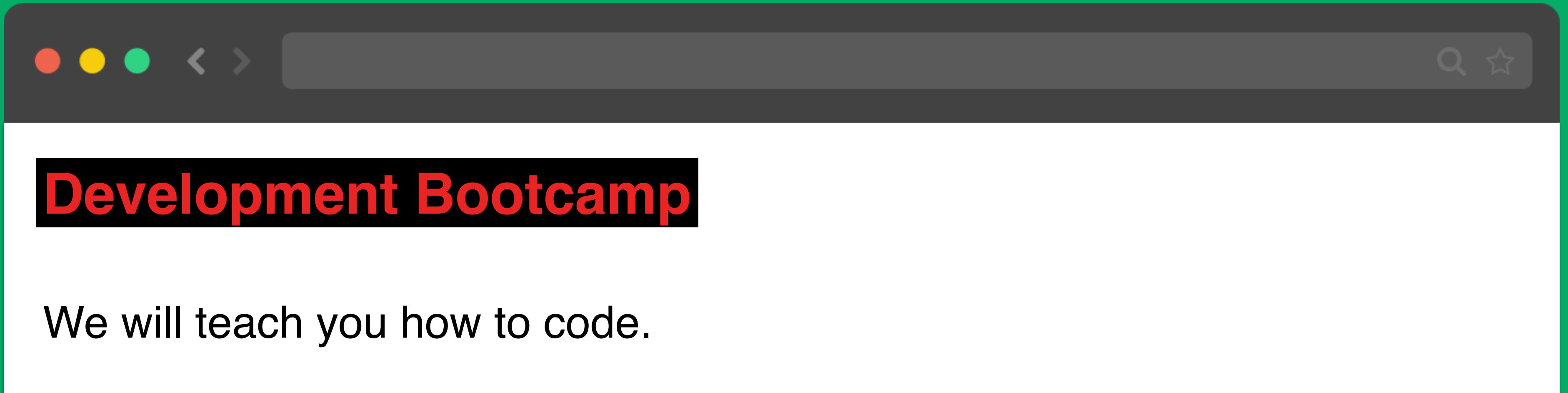
#ffffff

- Red, Green, Blue (RGB)
- 0 - 9 decimal system,
based on 10
- $0 - f \Rightarrow 0 - 16$
- Hexadecimal system
based on 16, not 10
- $16 * 16 * 16 * 16 * 16 * 16 = 16,777,216$
- Use a color picker!

Define background color

```
h1 {  
  color: #ff0000;  
  background: #000000;  
}
```

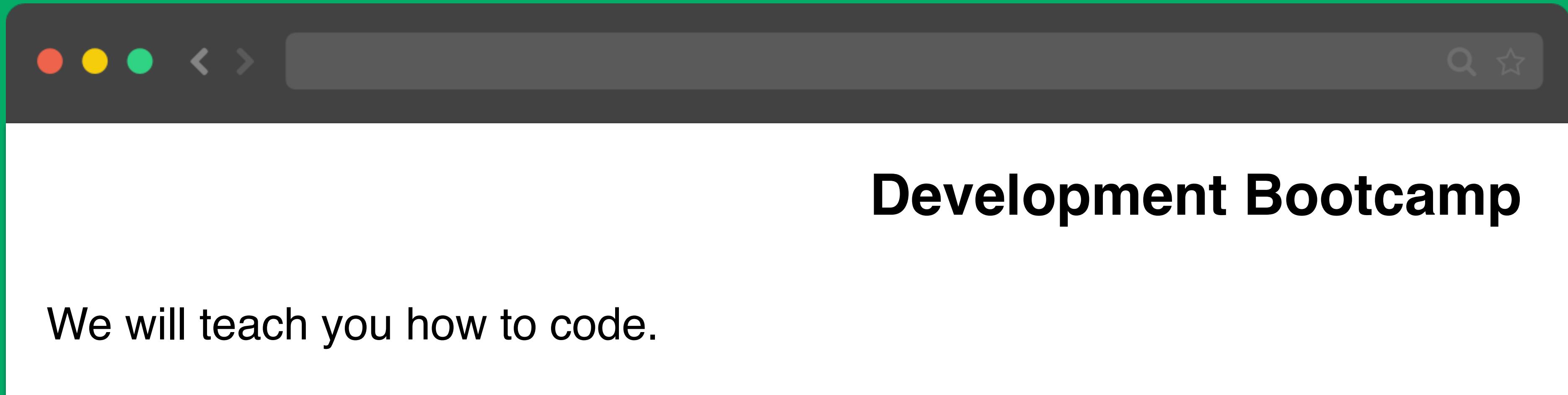
Browser result



Define alignment: right

```
h1 {  
  text-align: right;  
}
```

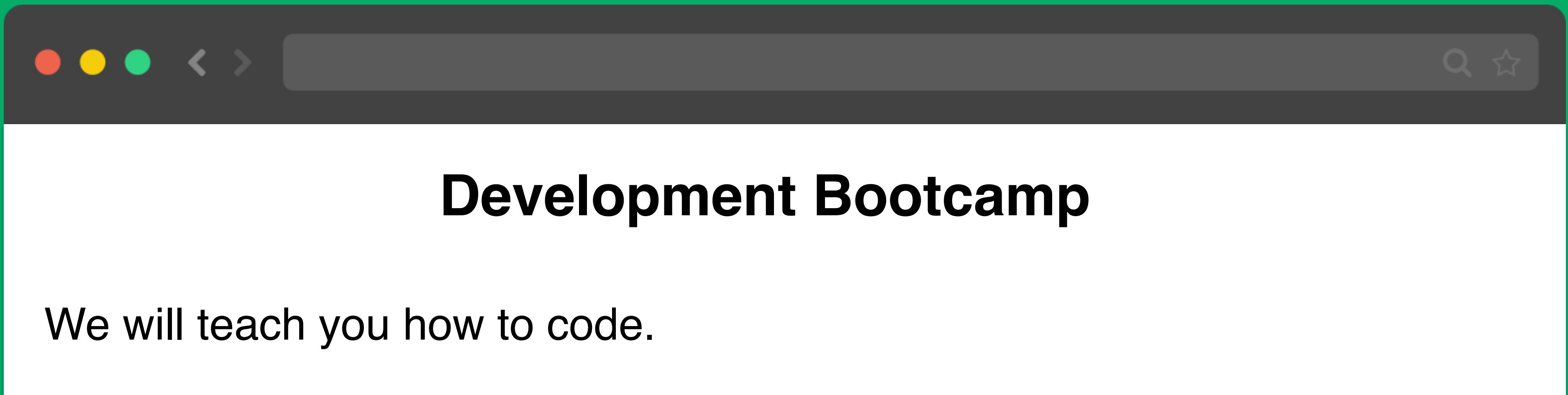
Browser result



Define alignment: center

```
h1 {  
  text-align: center;  
}
```

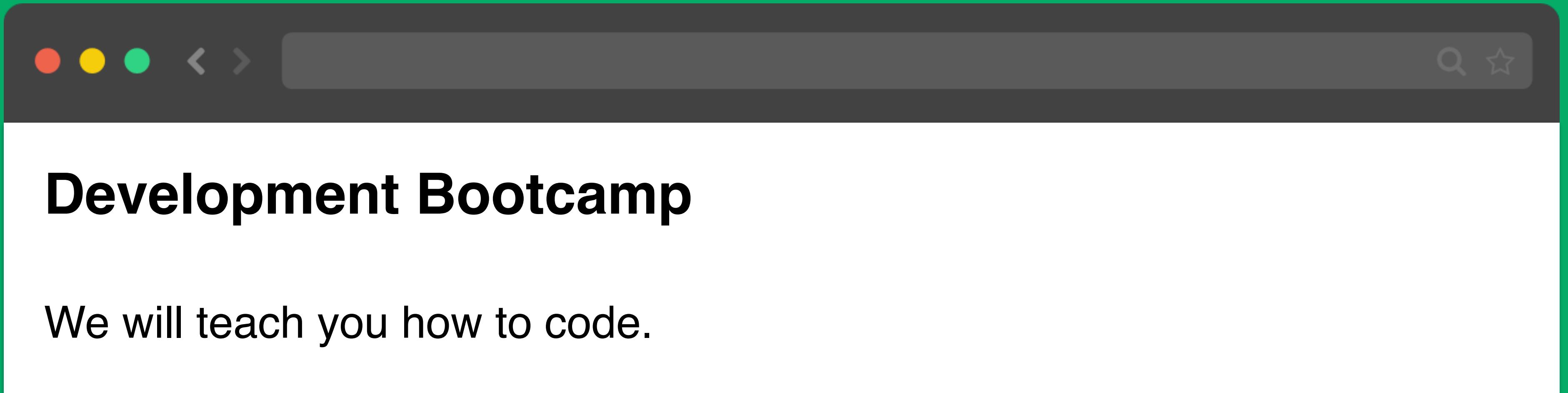
Browser result



Define alignment: **left**

```
h1 {  
  text-align: left;  
}
```

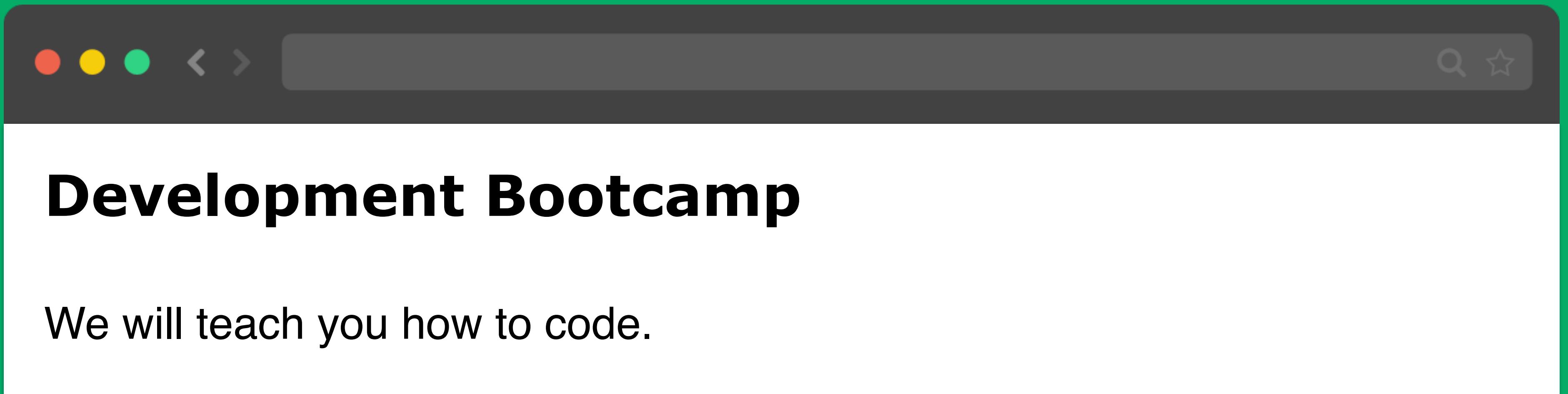
Browser result



Define font: *Verdana*

```
h1 {  
  font-family: Verdana;  
}
```

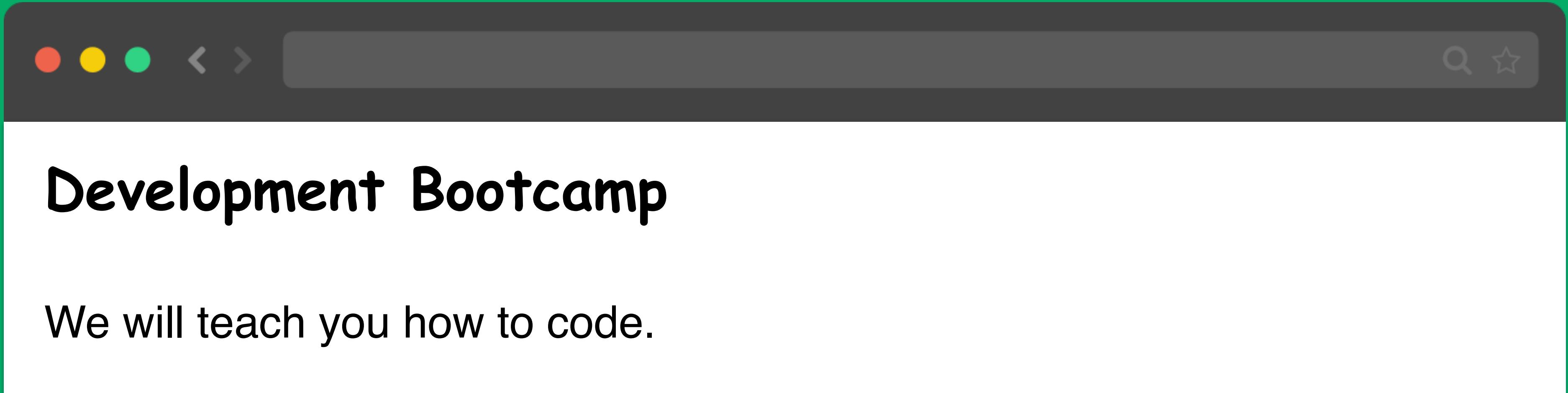
Browser result



Define font: *Comic Sans*

```
h1 {  
  font-family: "Comic Sans MS";  
}
```

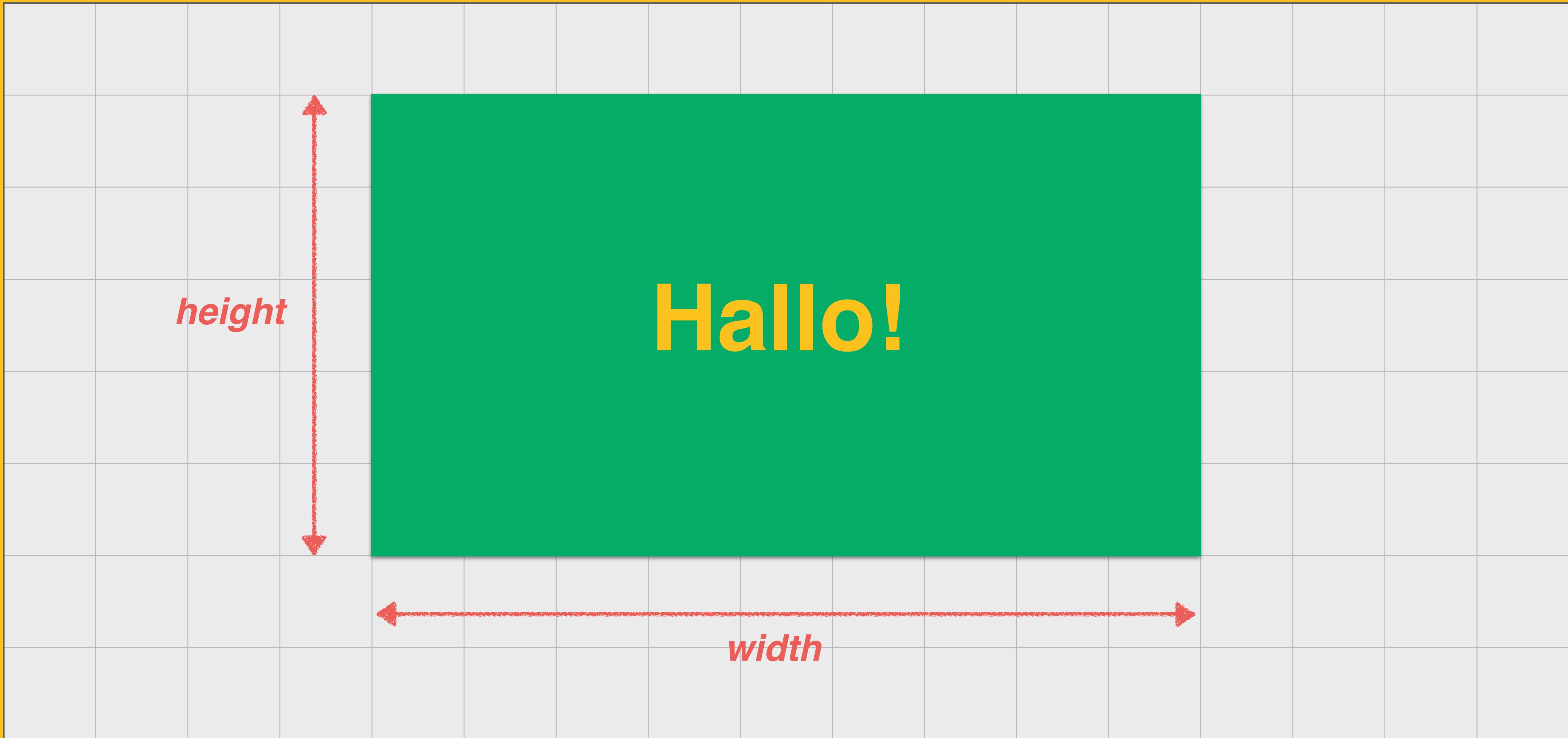
Browser result



A Screen Consists of Pixels



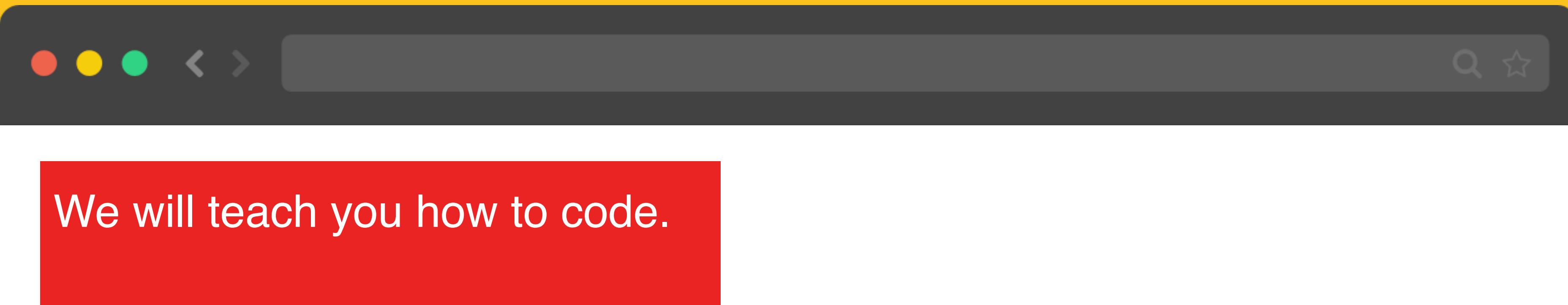
A Screen Consists of Pixels



Width

```
p {  
  color: #ffffff;  
  background-color: #ff0000;  
  width: 250px;  
  height: 50px;  
}
```

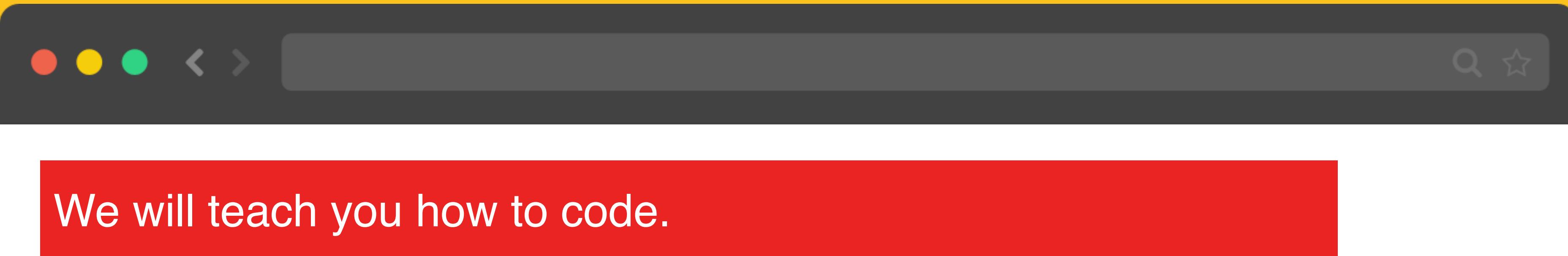
Browser result



Width

```
p {  
  color: #ffffff;  
  background-color: #ff0000;  
  width: 450px;  
  height: 35px;  
}
```

Browser result



Width

```
h1 {  
  width: auto;  
}
```

Browser result



Development Bootcamp

We will teach you how to code.

Width

```
h1 {  
  width: 50px;  
}
```

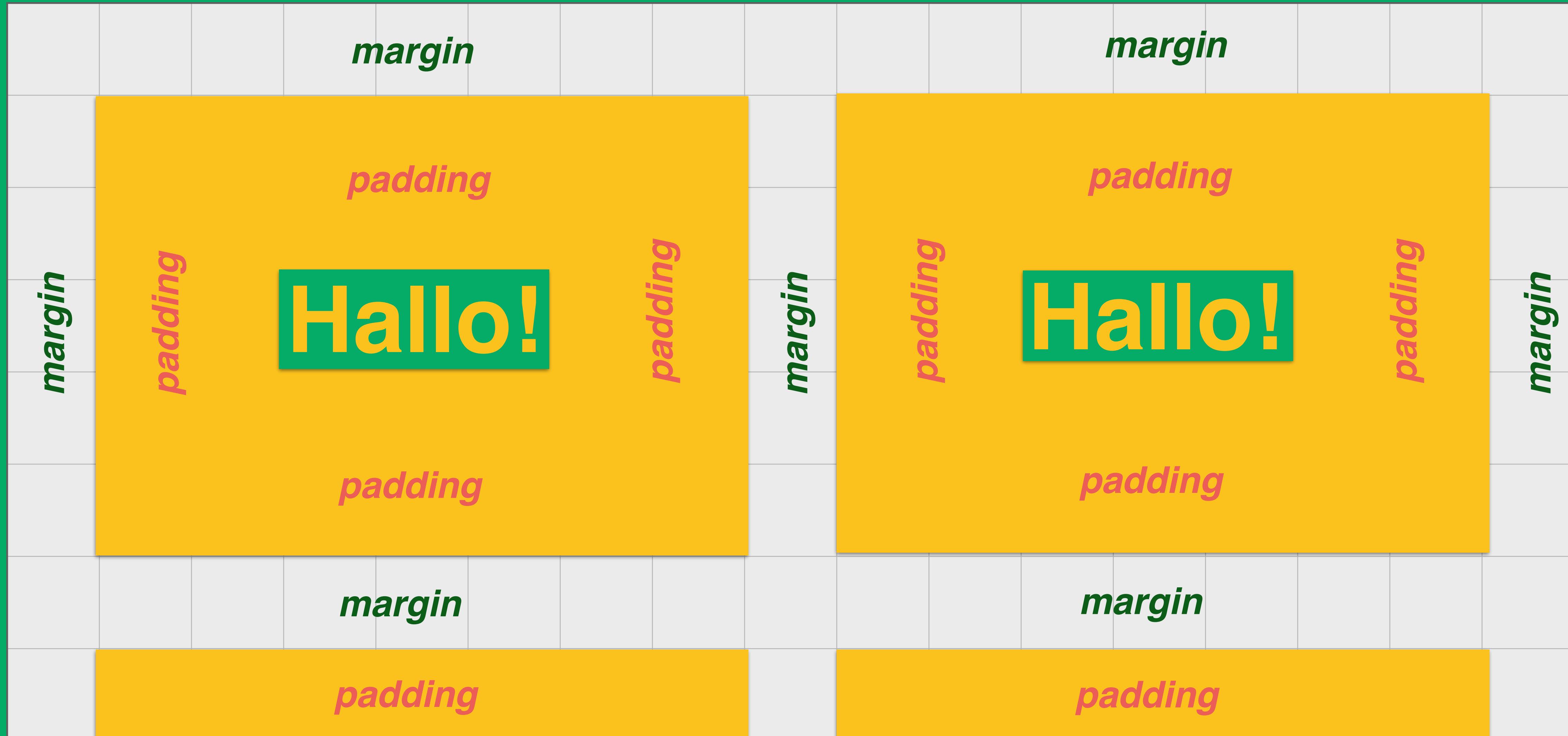
Browser result



Developer

We will teach you how to code.

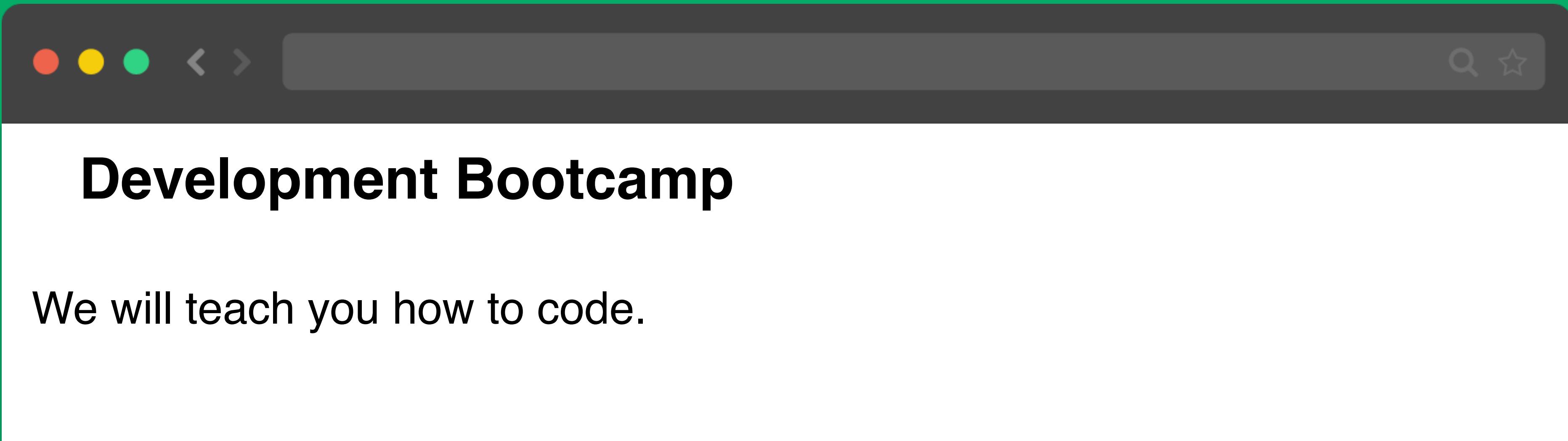
Padding and Margin



Padding

```
h1 {  
  padding-left: 10px;  
}
```

Browser result

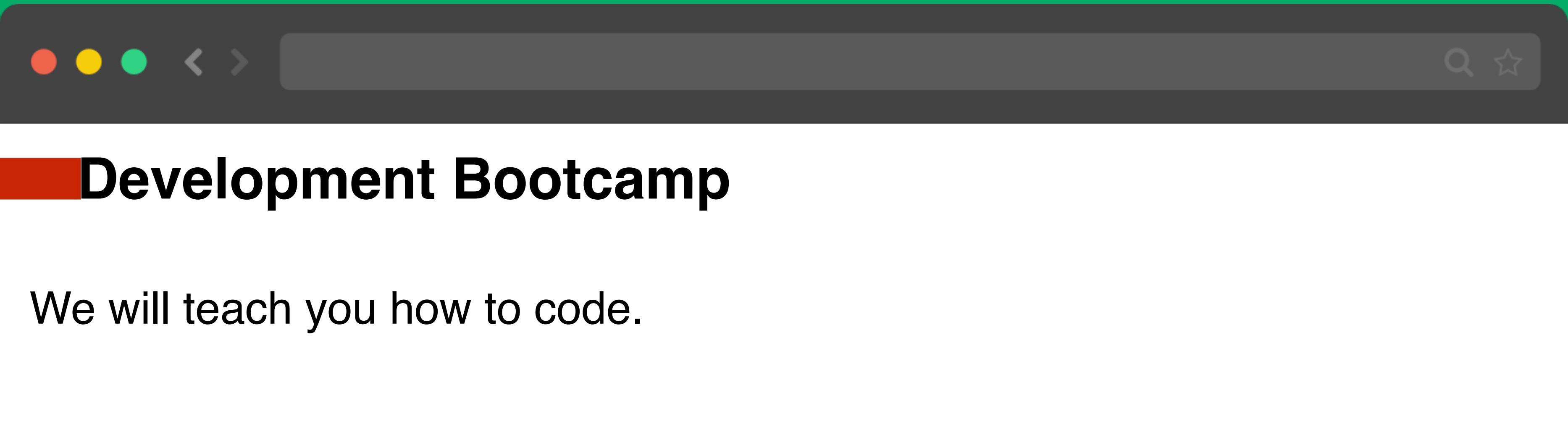


A screenshot of a web browser window. The title bar shows three colored dots (red, yellow, green) and navigation icons (< >). The search bar contains a magnifying glass icon and a star icon. The main content area displays the text "Development Bootcamp" in a large, bold, black font, followed by the subtitle "We will teach you how to code." in a smaller, regular black font.

Left Padding

```
h1 {  
  padding-left: 10px;  
}
```

Browser result



A screenshot of a web browser window. The title bar shows three colored dots (red, yellow, green) and navigation icons (< >). The search bar contains a magnifying glass icon and a star icon. The main content area displays an

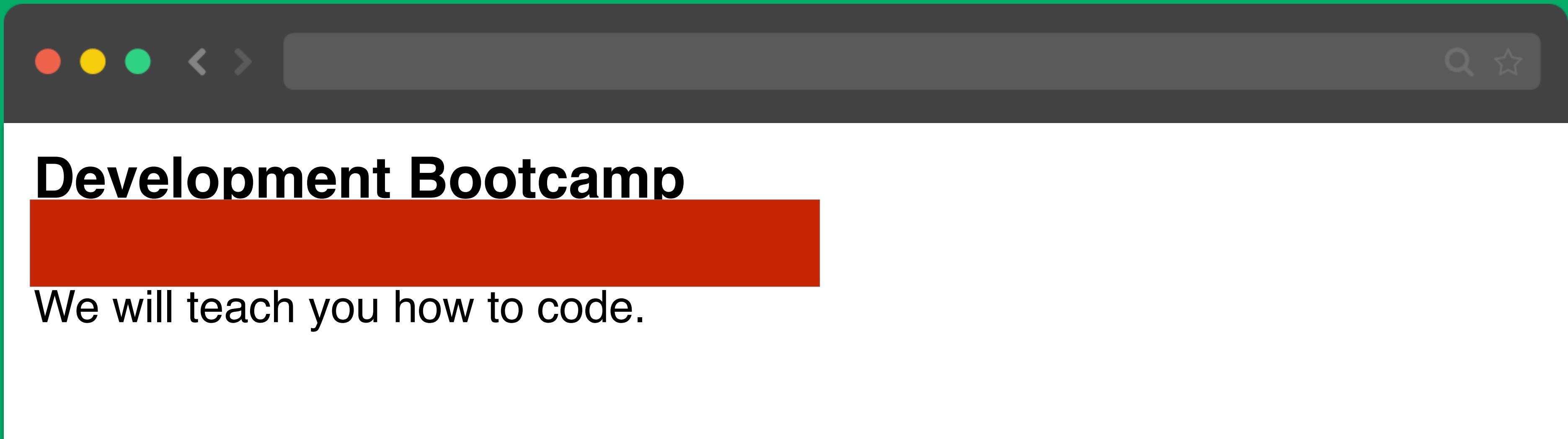
Development Bootcamp

 heading with a red background, followed by the text "We will teach you how to code.".

Margin

```
h1 {  
  margin-bottom: 10px;  
}
```

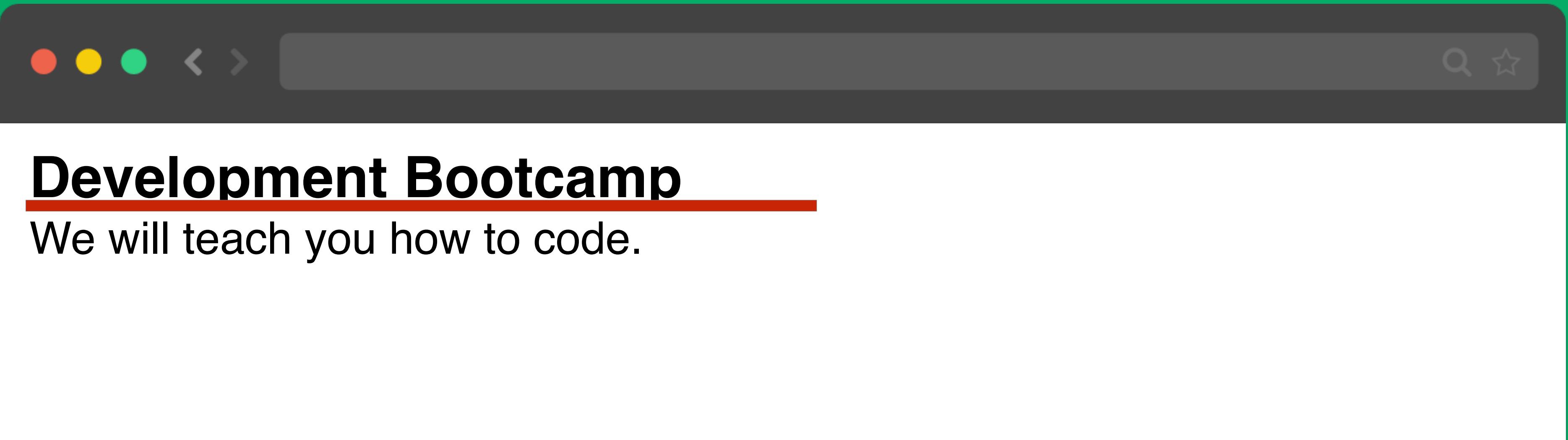
Browser result



Margin and Padding can be zero

```
h1 {  
  margin: 0;  
  padding: 0;  
}
```

Browser result



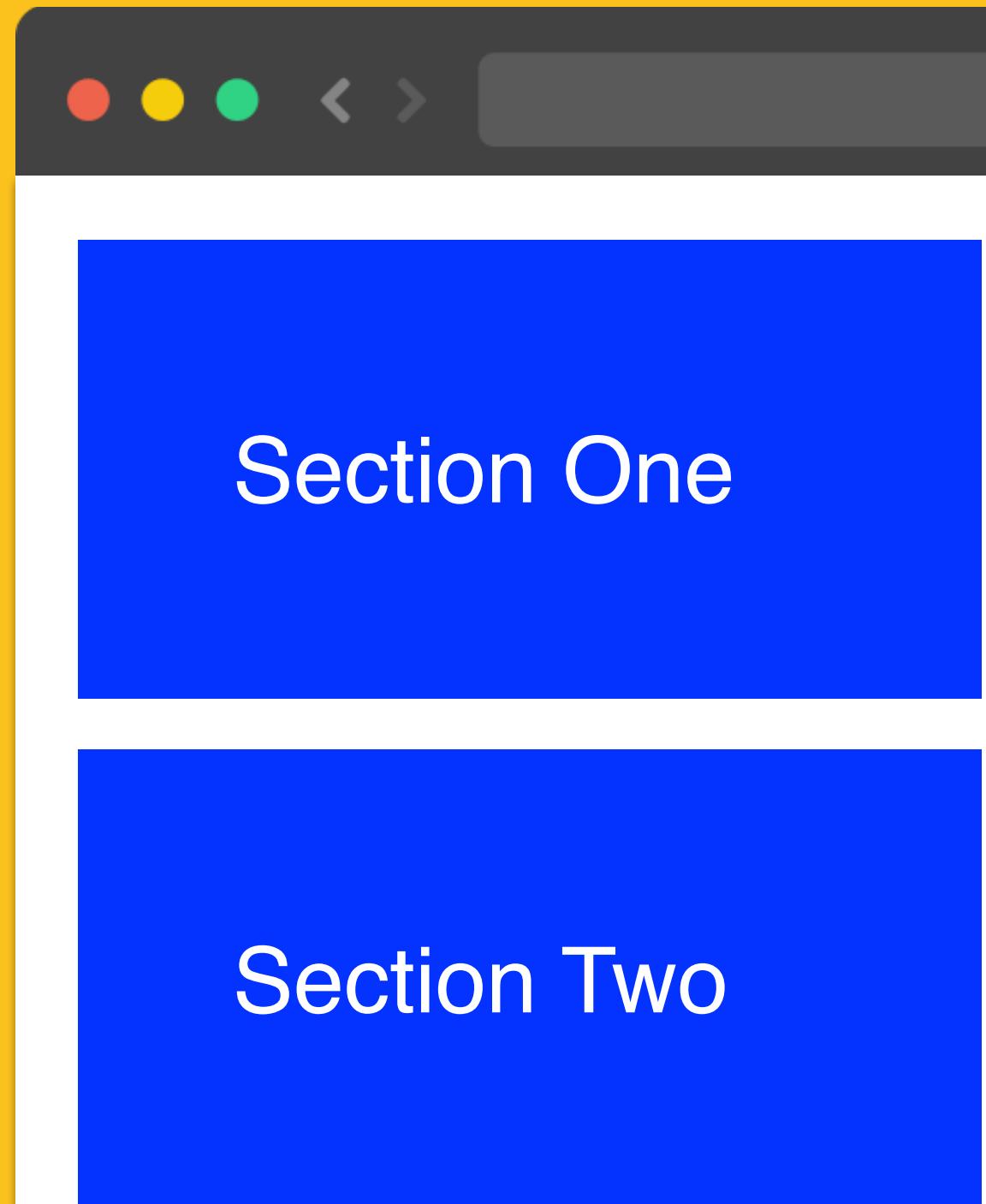
Dividing pages in blocks

index.html

```
<div>
  <p>Section One</p>
</div>
<div>
  <p>Section Two</p>
</div>
```

style.css

```
div {
  padding: 10px;
  margin: 5px;
  background-color: #0000ff
  color: #ffffff;
}
```



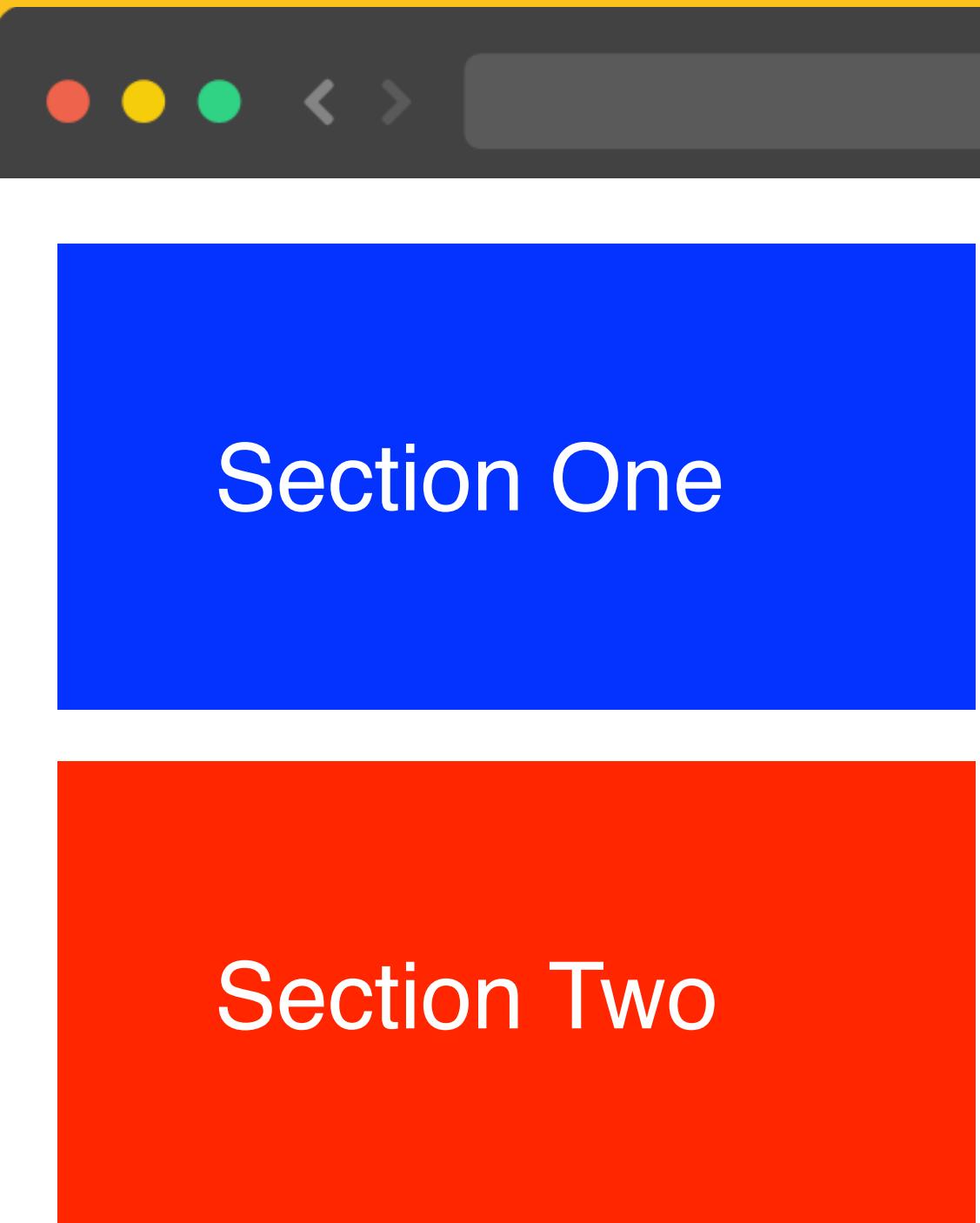
Adding class attributes

index.html

```
<div class="one">  
  <p>Section One</p>  
</div>  
<div class="two">  
  <p>Section Two</p>  
</div>
```

style.css

```
div {  
  padding: 10px;  
  margin: 5px;  
  background-color: #0000ff  
  color: #ffffff;  
}  
  
.one {  
  background-color: blue;  
}  
.two {  
  background-color: red;  
}
```



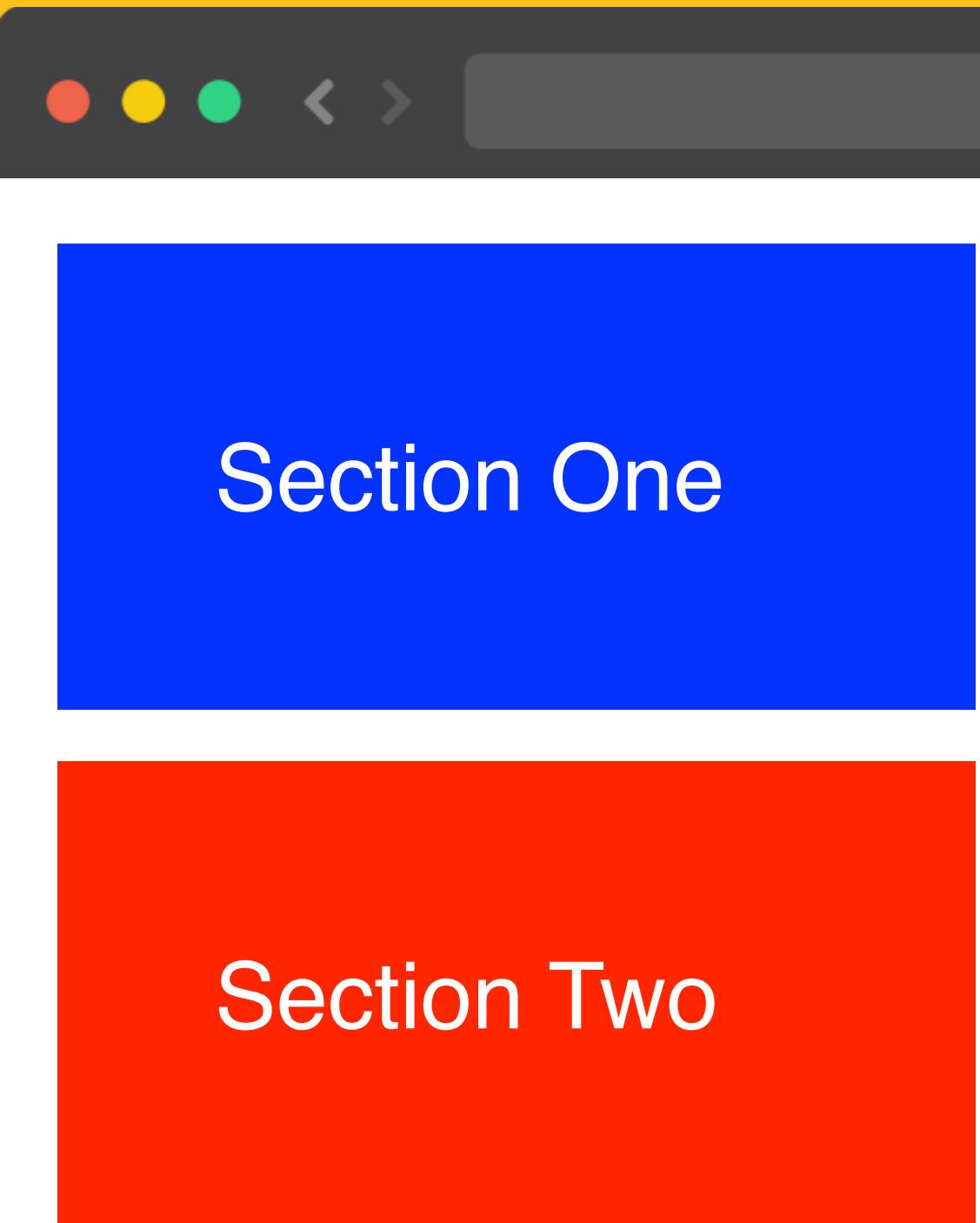
Class extends the Div

index.html

```
<div class="one">  
  <p>Section One</p>  
</div>  
<div class="two">  
  <p>Section Two</p>  
</div>
```

style.css

```
div {  
  padding: 10px;  
  margin: 5px;  
  background-color: #0000ff  
  color: #ffffff;  
}  
  
.one {  
  background-color: blue;  
}  
.two {  
  background-color: red;  
}
```



CLASSES

Can be added to any selector!

WORKSHOP

Styling with CSS



Repetition of your styles...

home.html

```
<!DOCTYPE html>
<html>
<head>
<title>Home</title>
<style>
  h1 {
    color: red;
  }
</style>
</head>
```

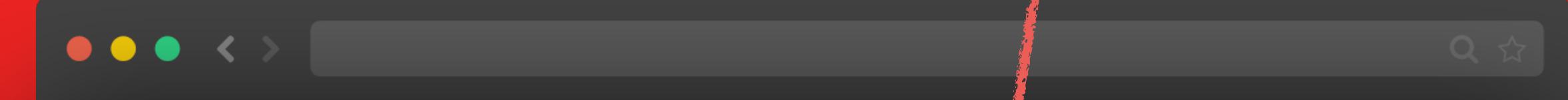
contact.html

```
<!DOCTYPE html>
<html>
<head>
<title>Contact</title>
<style>
  h1 {
    color: red;
  }
</style>
</head>
```



Home Page

This is a homepage.



Contact

Send us an email.

Re-use instead

home.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Home</title>
  <link rel="stylesheet"
        href="style.css">
</head>
```

contact.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Contact</title>
  <link rel="stylesheet"
        href="style.css">
</head>
```

style.css

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