

First thing's first... I'm the realest

Write a function which takes a string and returns it written backwards (reverses it), logging the result to the console.

Test your solution with a few different strings.

Nation Code

HTML and CSS

Intro to HTML

{codenation}[®]

Learning Objectives

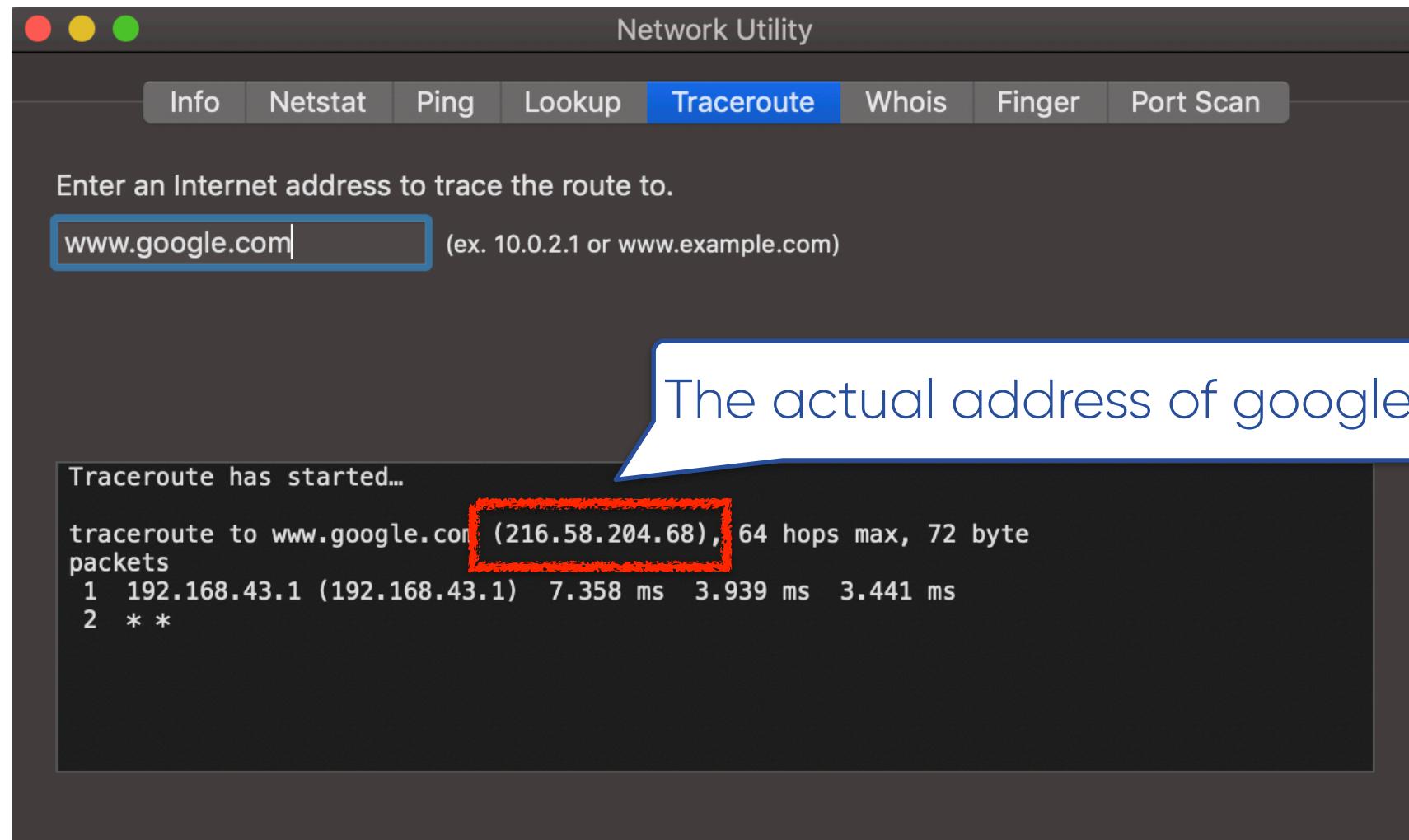
- } To understand how the web 'works'
- } To understand what HTML is and what it's used for
- } To understand what HTML elements are, and be able to write your own, to create and structure the content of a webpage



How does the **web** work?

<https://www.google.com/>





Alternatively, you can use command line

Traceroute www.google.com

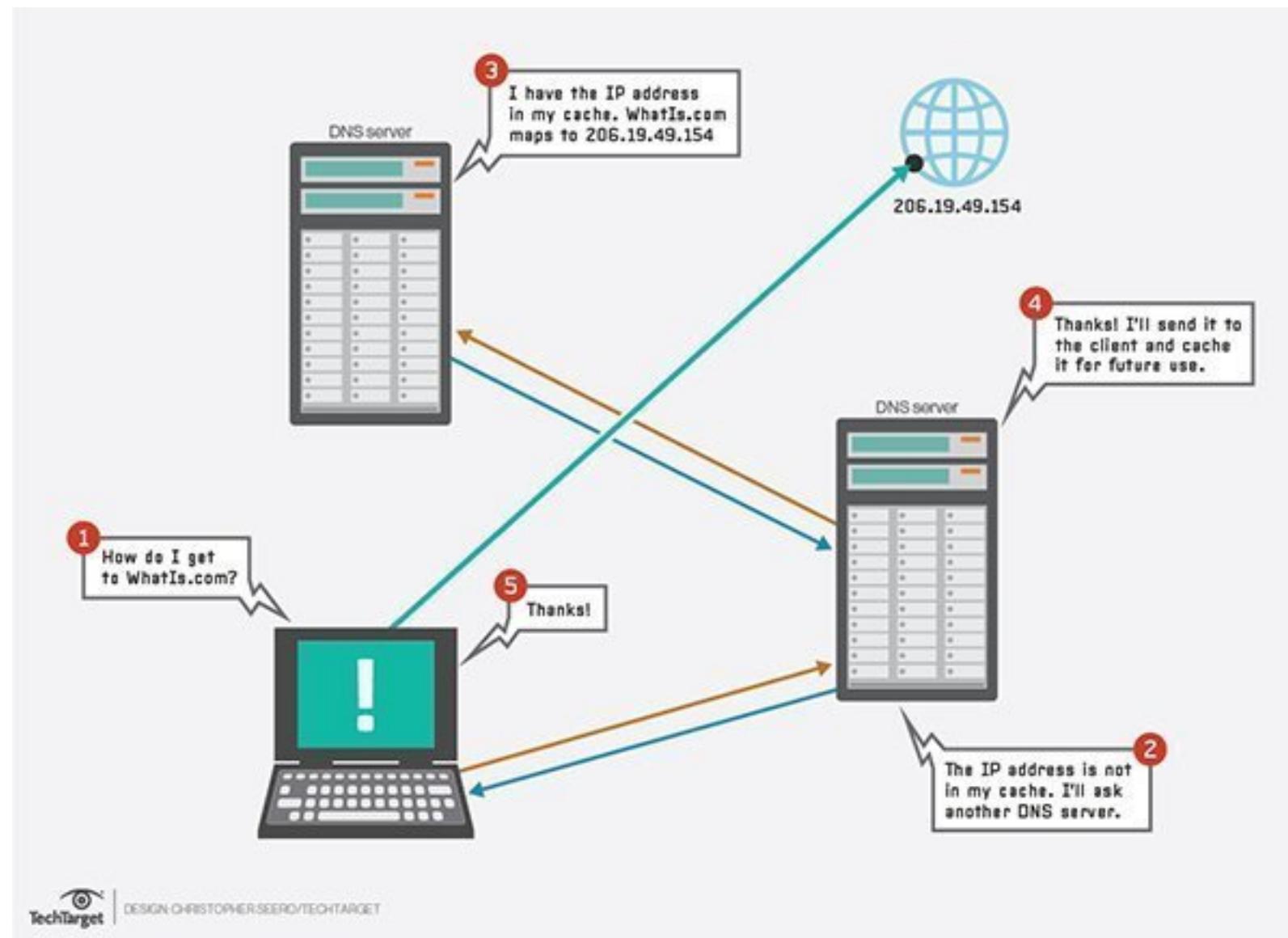
```
[Leonas-MBP:~ leona$ Traceroute www.google.com
Traceroute to www.google.com (216.58.208.164), 64 hops max, 52 byte packets
 1 my.meraki.net (192.168.1.1)  5.581 ms  3.565 ms  5.196 ms
 2 51.219.209.137 (51.219.209.137)  4.120 ms  5.338 ms  5.286 ms
 3 51.219.107.240 (51.219.107.240)  6.792 ms  4.198 ms  5.651 ms
 4 * * *
 5 164.39.242.0 (164.39.242.0)  19.389 ms  11.635 ms  12.950 ms
 6 * * *
 7 * * *
 8 216.239.63.138 (216.239.63.138)  13.755 ms
    172.253.66.88 (172.253.66.88)  12.445 ms
    172.253.68.210 (172.253.68.210)  17.721 ms
 9 216.239.46.29 (216.239.46.29)  12.380 ms
    216.239.46.39 (216.239.46.39)  15.011 ms
    74.125.242.115 (74.125.242.115)  13.145 ms
10 lhr25s09-in-f164.1e100.net (216.58.208.164)  12.785 ms
    216.239.59.77 (216.239.59.77)  13.904 ms  13.946 ms
.
```

A few
keywords

DNS :-
Domain Name System

HTTP :-
HyperText Transfer Protocol

WWW :-
World Wide Web





HTML.

{ CODENATION }



"Triad of cornerstone technologies for the web"





The **skeleton** - that's **HTML**
The **appearance** - that's **CSS**
The **brain** - that's **JavaScript**

Kinda... just a fun way to think about it



HTML in a nut shell



**Hyper Text Markup Language is used
for coding the actual content of
webpages.**

**It has been around since the early
90's and continues to be a hugely
important part of web development.**



Annnnd...
CSS

Cascading Style Sheets is the language used to style websites.

It defines the visual representation of the content. For example colour, margins, borders, backgrounds and position in the page.



Let's get started with **HTML**



Let's get started with **HTML**

HTML is constructed with lots of elements.

These **elements** are simply the building blocks of HTML pages.

HTML Elements

- } Headings
- } Paragraphs
- } Lists
- } and many more!

HTML elements (general)

```
<tagname>Some content</tagname>
```

Opening tag

Content

Closing tag

Element

Tags

When a HTML document is read, it is the element tags which determine the type of content displayed.

There are many different types of tags.

Example (p tag)

The diagram illustrates the structure of an HTML `p` tag. It consists of three main parts: an `<p>` opening tag, some `Today is cloudy!` content, and a `</p>` closing tag. A thick orange horizontal line at the bottom is labeled "Element". Three white brackets point from labels below to their corresponding parts: "Opening tag" points to the start of the line, "Content" points to the text in the middle, and "Closing tag" points to the end of the line.

```
<p>Today is cloudy!</p>
```

Opening tag Content Closing tag

Element

Note

Some HTML elements do not need a closing tag as they are used to place standalone elements on the webpage.

For example:

```
<br>
```

```
<img>
```

Commenting

Commenting is slightly different...

Comments are both notes for yourself, and other developers.

```
<!-- this is where comments go -->
```



A few basics...

We're almost there... sorry

Headings

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

*You should have only **one** Heading 1 `<h1>` on any **one** page, you can have as many h2 to h6 as you want.

Paragraphs

< p >

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< / p >

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Unordered list

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Hot Chocolate</li>
</ul>
```

- Coffee
- Tea
- Hot Chocolate

Ordered list

```
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Hot Chocolate</li>
</ol>
```

1. Coffee
2. Tea
3. Hot Chocolate

Other stuff

- } Formatting texts
- } Abbreviations
- } More on lists
- } Special characters and HTML entities



We all need **structure**,
HTML is no different.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
</head>
<body>
    ...Webpage contents...
</body>
</html>
```

Webpage Structure



HTML in action

{ CODENATION }

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More than a coding school

We don't just teach coding, we offer a complete education in digital that focuses on skills like cyber security, data analysis and AI, because they're the most in-demand skills in every industry and in every size of company.

More than 90% of our **graduates** have secured a job in tech as a result of studying with Code Nation. Around one hundred **businesses** partner with us to help develop our curriculum and directly solve their digital skills shortage.

[Learn With Us](#)[Partner With Us](#)[Work For Us](#)

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Welcome to Code Nation – Coding & Cyber Security Training</title>
</head>
<body>
    <div>
        <img src = "cn-s.png" alt = "Code Nation">
        <!--menu here-->
    </div>
    <div>
        <img src = "cn.png" alt = "Code Nation">
        <h1>More than a coding school</h1>
        <p>We don't just teach coding, we offer a complete education in digital that focuses on skills like cyber security, data analysis and AI, because they're the most in-demand skills in every industry and in every size of company.
        </p>
        <p><b>More than 90% of our graduates</b>
            have secured a job in tech as a result of studying with Code Nation.
            <b>Around one hundred businesses</b> partner with us to help develop our curriculum and directly solve their digital skills shortage.
        </p>
    </div>
    <div>
        <button type="button">Learn With Us</button>
        <button type="button">Partner With Us</button>
        <button type="button">Work For Us</button>
    </div>
</body>
</html>
```

Notice how <div> were used
to divide the page?

The screenshot shows the homepage of the Code Nation website. At the top, there's a navigation bar with links for 'Learn', 'Partner', 'Apprenticeships', 'Courses', 'Events', 'Locations', 'About', 'Blog', and 'Contact'. A red box highlights the top navigation area. Below the navigation is a large banner featuring two people in a tech environment. The banner text includes 'codenation' logo, 'More than a coding school', a paragraph about their curriculum, and three buttons: 'Learn With Us', 'Partner With Us', and 'Work For Us'. The background of the banner has a yellow-to-white gradient. At the bottom of the banner, it says 'A PATHWAY TO THE FUTURE' and 'Change the world with your laptop'. There are three sections below the banner: 'CREATE', 'DEFEND', and 'EXPLORE', each with a brief description. A 'Learn With Us' button is at the very bottom.

You will be using lots
of <div> to help you
break your HTML into
sections





A screenshot of the Code Nation website homepage. The header includes a navigation bar with links for Learn, Partner, Apprenticeships, Courses, Events, Locations, About, Blog, and Contact. A 'DOWNLOAD OUR BROCHURES' button is also present. The main content features a large image of two people in a tech environment, with the text 'More than a coding school'. Below this, there's a paragraph about the curriculum and a section titled 'Change the world with your laptop'. The page is decorated with a repeating pattern of power icons.

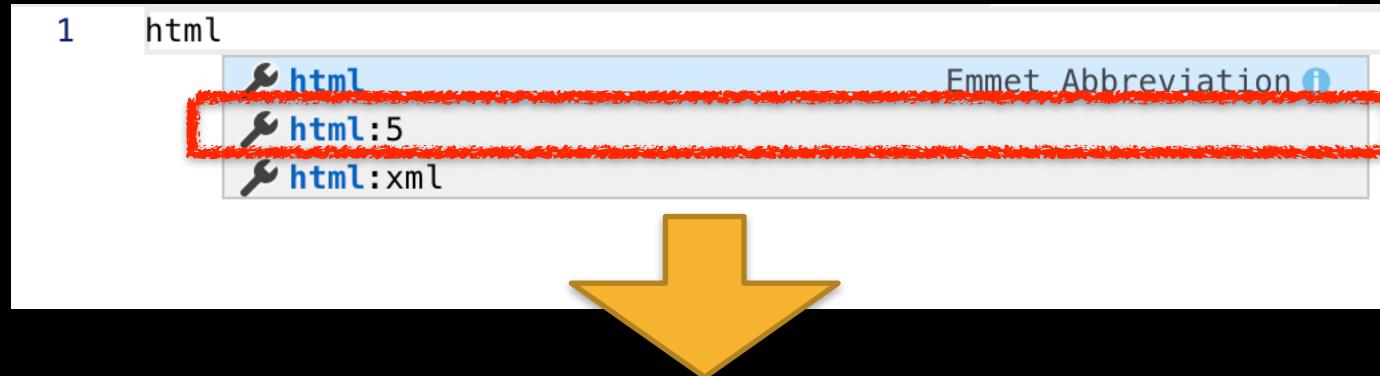
<div> tags can also be nested inside each other, when we incorporate CSS it's important to consider inheritance.



Let's talk file structure.

In VS Code

Type html and select html:5

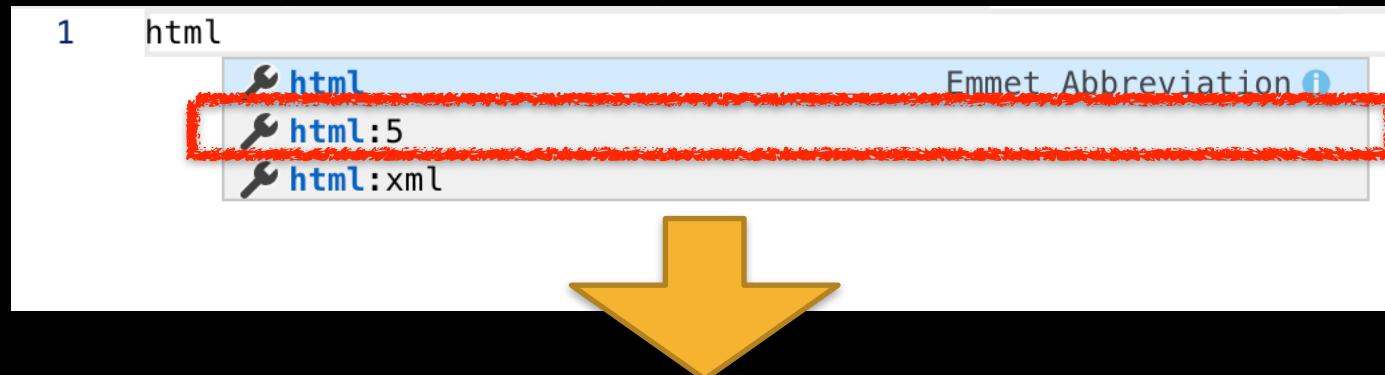


VS Code will give you a template

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <meta http-equiv="X-UA-Compatible" content="ie=edge">
7   <title>Document</title>
8 </head>
9 <body>
10
11 </body>
12 </html>
```

In VS Code

Type html and select html:5



VS Code will give you a template

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <meta http-equiv="X-UA-Compatible" content="ie=edge">
7   <title>Document</title>
8 </head>
9 <body>
10 </body>
11 </html>
```

You only need to define UTF-8
So delete line 5 and 6 for now

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>Document</title>
6 </head>
7 <body>
8
9 </body>
10 </html>
```



The magic of **css**

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**No styling required
yet, so with any page
we build we should
start with plain html.**

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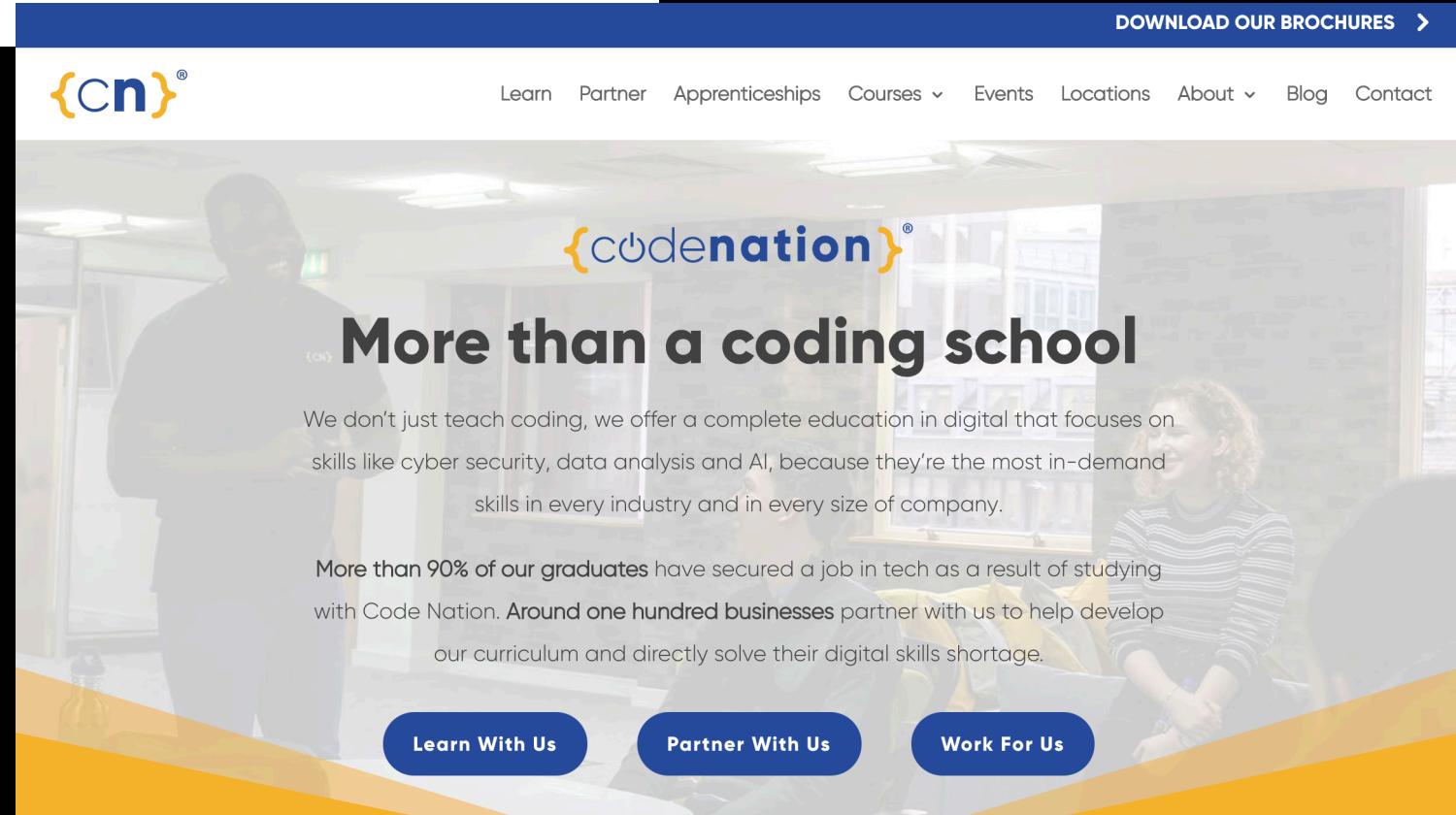
More than 90% of our graduates have secured a job in tech as a result of studying with Code Nation. **Around one hundred businesses** partner with us to help develop our curriculum and directly solve their digital skills shortage.

[Learn With Us](#) [Partner With Us](#) [Work For Us](#)



And then do the magic with CSS

No styling required yet, so with any page we build we should start with plain html.



The screenshot shows the Code Nation homepage. At the top, there's a blue header bar with the 'cn' logo and navigation links: Learn, Partner, Apprenticeships, Courses, Events, Locations, About, Blog, and Contact. Below the header is a large banner featuring a blurred image of people in a classroom setting. On the left side of the banner, the 'codenation' logo is displayed. To the right of the logo, the text 'More than a coding school' is written in a large, bold, black font. Below this, a paragraph of text discusses the comprehensive nature of their education. At the bottom of the banner, there are three blue buttons: 'Learn With Us', 'Partner With Us', and 'Work For Us'. In the top right corner of the banner, there's a link 'DOWNLOAD OUR BROCHURES >'. The overall design is clean and professional, using a combination of white, blue, and yellow colors.

Learning Objectives

- } To understand how the web 'works'
- } To understand what HTML is and what it's used for
- } To understand what HTML elements are, and be able to write your own, to create and structure the content of a webpage

Activity - portfolio/about me

Create a HTML only webpage (no styling) about yourself which includes the following sections:

- } A page title/heading
- } Include an image (of anything)
- } Subheadings for four different sections.
- } A section that lists your favourite food (no order)
- } A section that ranks your favourite seasons (1 best, 4 worst)
- } A section which includes a paragraph on what made you interested in joining Code Nation.
- } A section which includes your week one target(s) and what progress you've made to achieving it (or what you are going to do)
- } A footer with two links to different webpages.



You're done, bud.

