

Lesson 18 of 176

## HTML Intro



If you don't have basic understanding of what HTML or CSS is, doing [this lesson](#) first would help drastically

Then continue reading below . . .

Aaron Jack explains HTML in a neat well edited 5 min clip

HTML in 5 minutes

Tonton nanti Bagikan

HTML IN 1 HOUR

CSS IN 5 MINS

What Are APIs?

JS FUNCTIONS JS

JAVASCRIPT Zero to Hero

THE AI PROBLEM

HTML TUTORIAL

5:11 / 5:11

YouTube

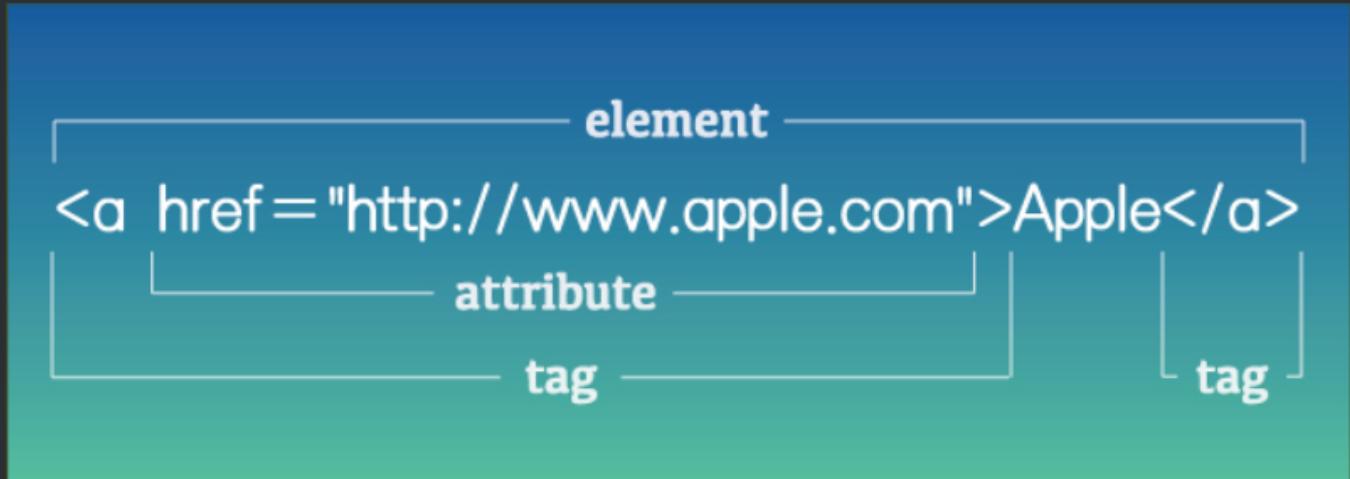
### Anatomy of HTML

In the previous checkpoint, you learned that HTML looks a bit like the code below. Which pieces do you

recognise?

```
<main>
  <h1>This is a simple title created within HTML.</h1>
  <p>This is a simple paragraph created within HTML.</p>
</main>
```

Though it may look complicated at first blush, there's actually some repetition at play here. The code above uses several common HTML components, and you'll first explore two of the most important ones: elements and tags.



## Elements and tags

You started learning about elements and tags in the previous checkpoint. Now, it's time to dive a little deeper.

Take a look at the code below. This is called an *element*—specifically, an `<h1>` element. In fact, the entire line, from beginning to end, is referred to as an `<h1>` element.

```
<h1>This is a simple title created within HTML.</h1>
```

An HTML element is often made up of two *tags*: an *opening tag* and a *closing tag* (sometimes called a begin tag and an end tag, respectively). The opening tag begins the HTML element, and it's enclosed in brackets `<>`, as seen below.

```
<h1>
```

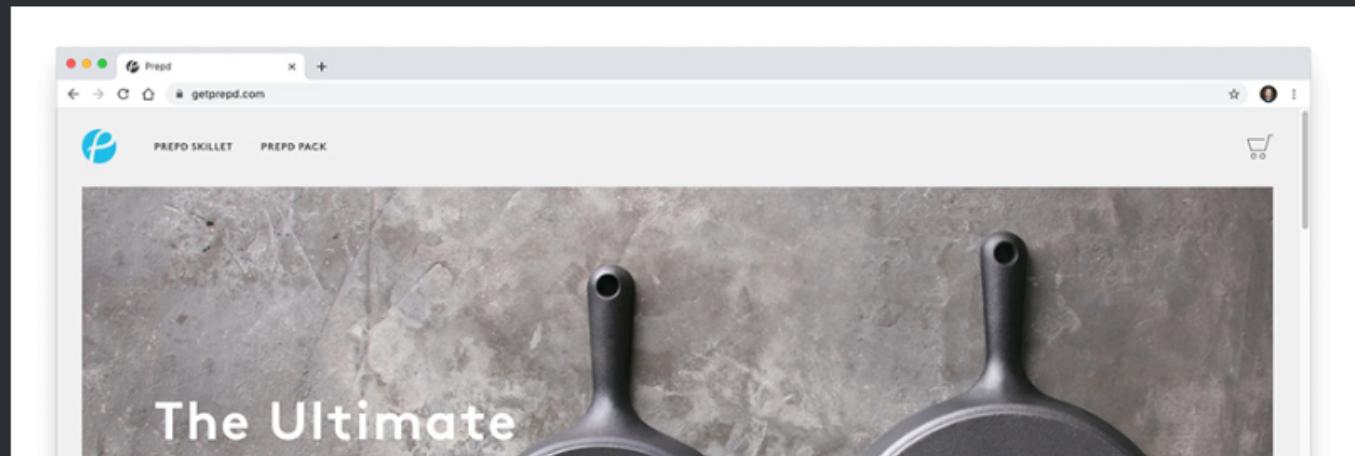
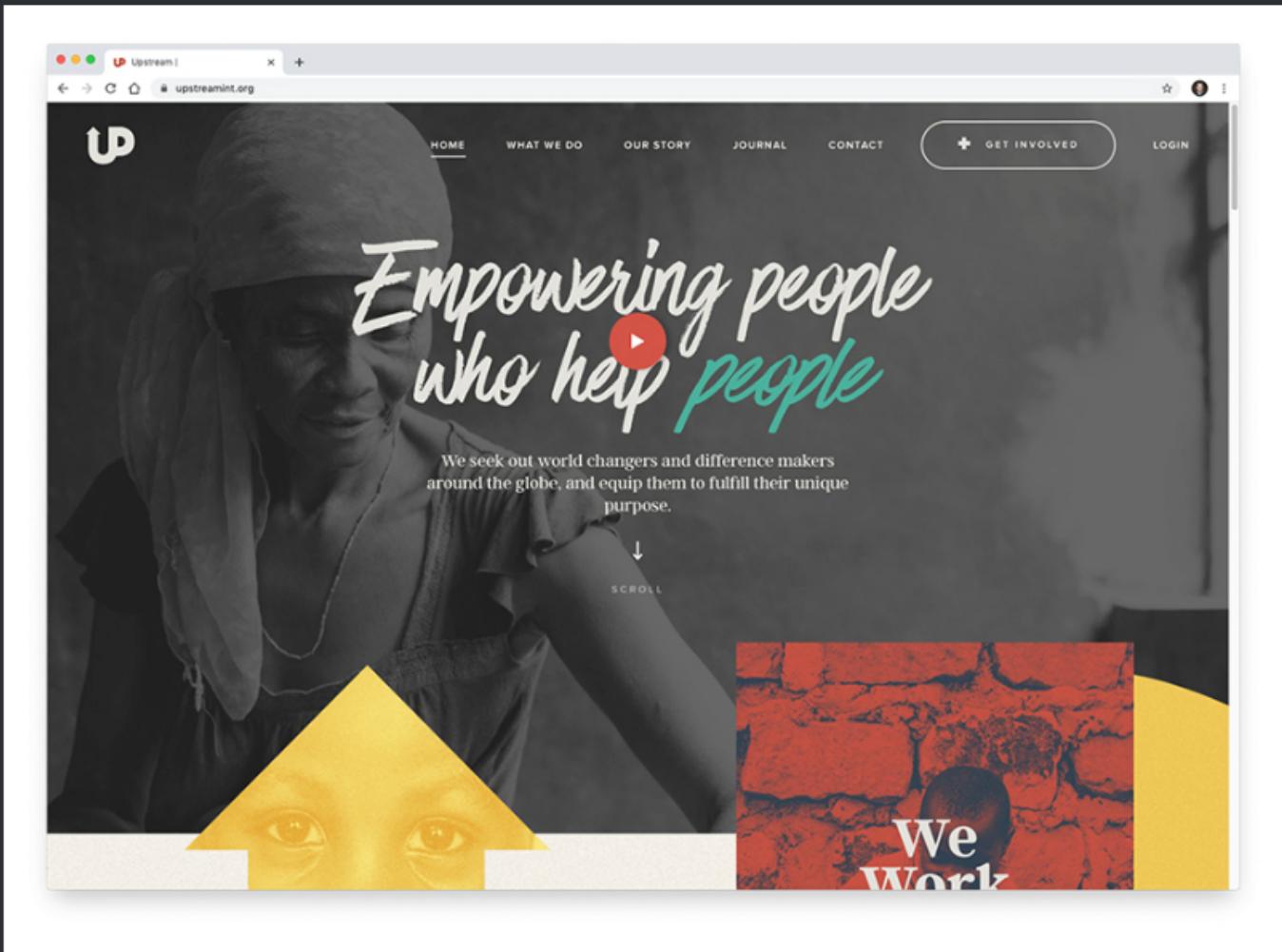
The closing tag, which you can see below, ends the HTML element. Like the opening tag, it is enclosed in `<>`. But it has one important difference: the closing tag also has a forward slash / before the element name. The closing tag will always have this /, which signifies the end of an element.

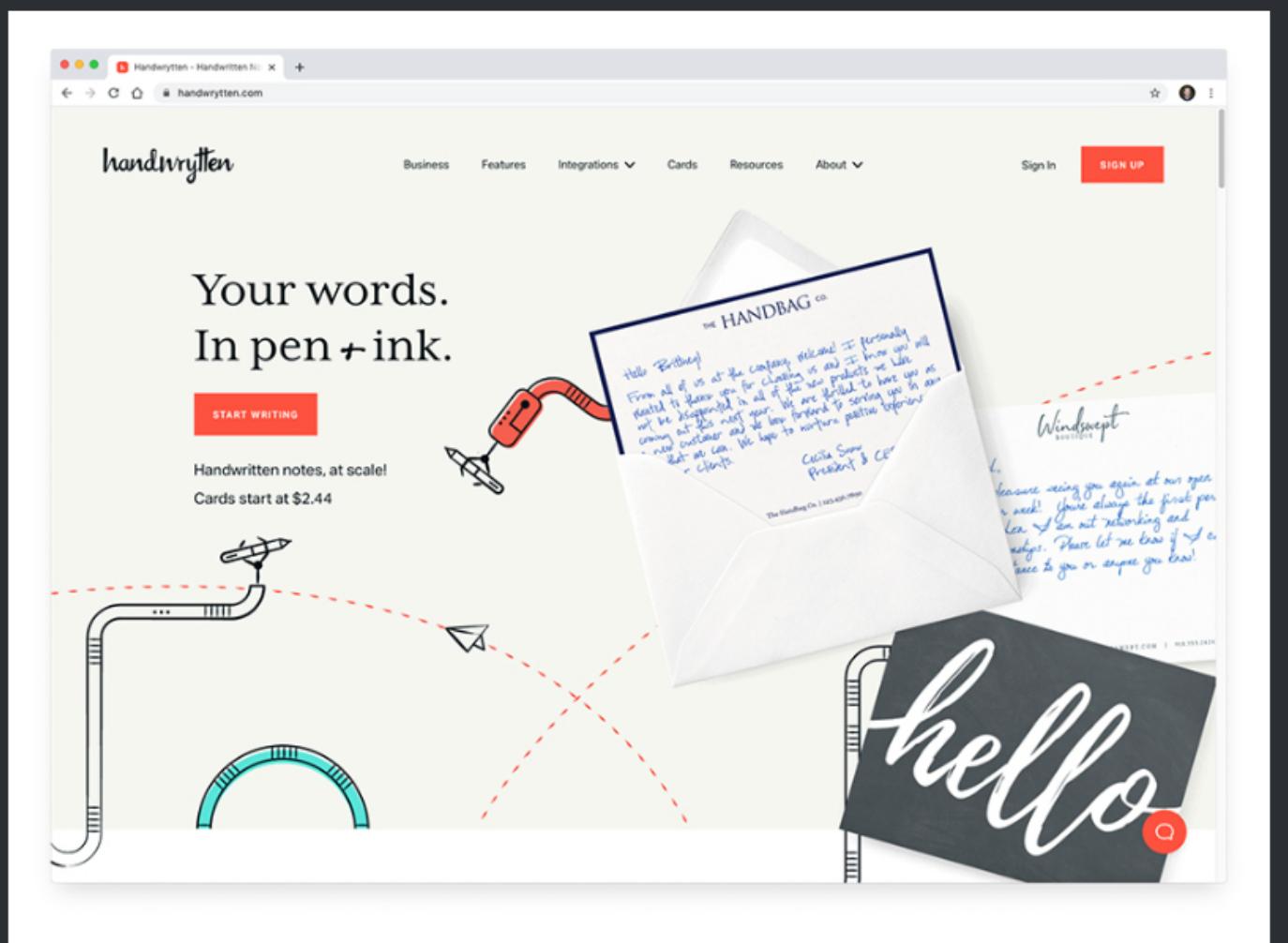
```
</h1>
```

## HTML text

Text in HTML is unique. This is because of how the text is grouped visually using code. HTML text can be grouped into two primary categories: *headings* (sometimes called headers) and *paragraphs*.

Take a look at the links to three web pages and the accompanying screenshots shown below. Can you identify the headings? What about the paragraphs? Can you tell the difference?





## HTML paragraphs

At its most basic level, an HTML paragraph is a block of content, such as text, that is represented by a `<p>` element. An HTML paragraph is set off with `<p>` and `</p>`, and these tags give website content their familiar paragraph formatting.

It's time to dig a little deeper into HTML paragraph code. Take a look at this screenshot—can you identify the HTML paragraphs? What about the HTML headings?

the HTML paragraphs? What about the HTML headings?



## Dogs or Cats?

### What kind of person are you?

The world is made up of three types of people: Cat people; dog people; and boring people.

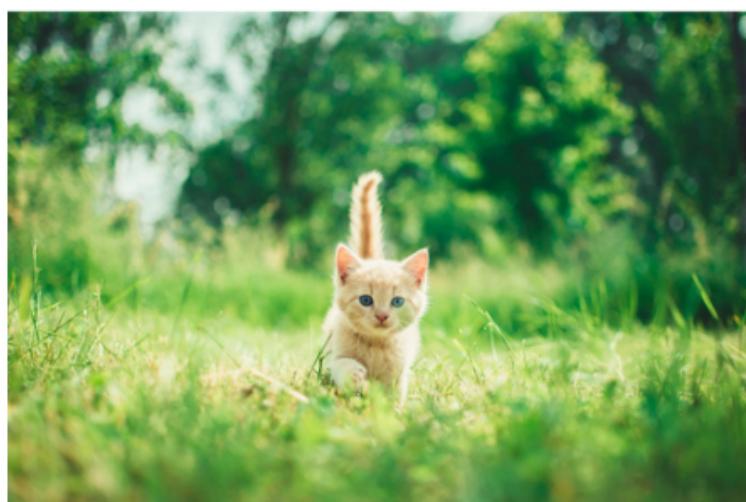
Why do you think you have a preference for one over the other?

#### Dogs



The dog's story is inexorably linked with the human's. Dogs are dogs, and not wolves, purely because of human tampering. They were made by us to fit us. The same is true of almonds, but almonds don't play fetch. We took, and take, the cute ones, the sweet ones, the ones we like the best and mold them and their offspring, often to the detriment of their health, into our perfect companions. And that they are.

#### Cats



Cats are graceful, clumsy, silky soft with sharp edges, softly glowing eyes in the dark, purring, kneading balls of fur curled up closely against your body warmth, intelligent, annoying, funny, great conversationalists with comments about many things, and intriguing little creatures who display many emotions including affection, even love for their guardians.

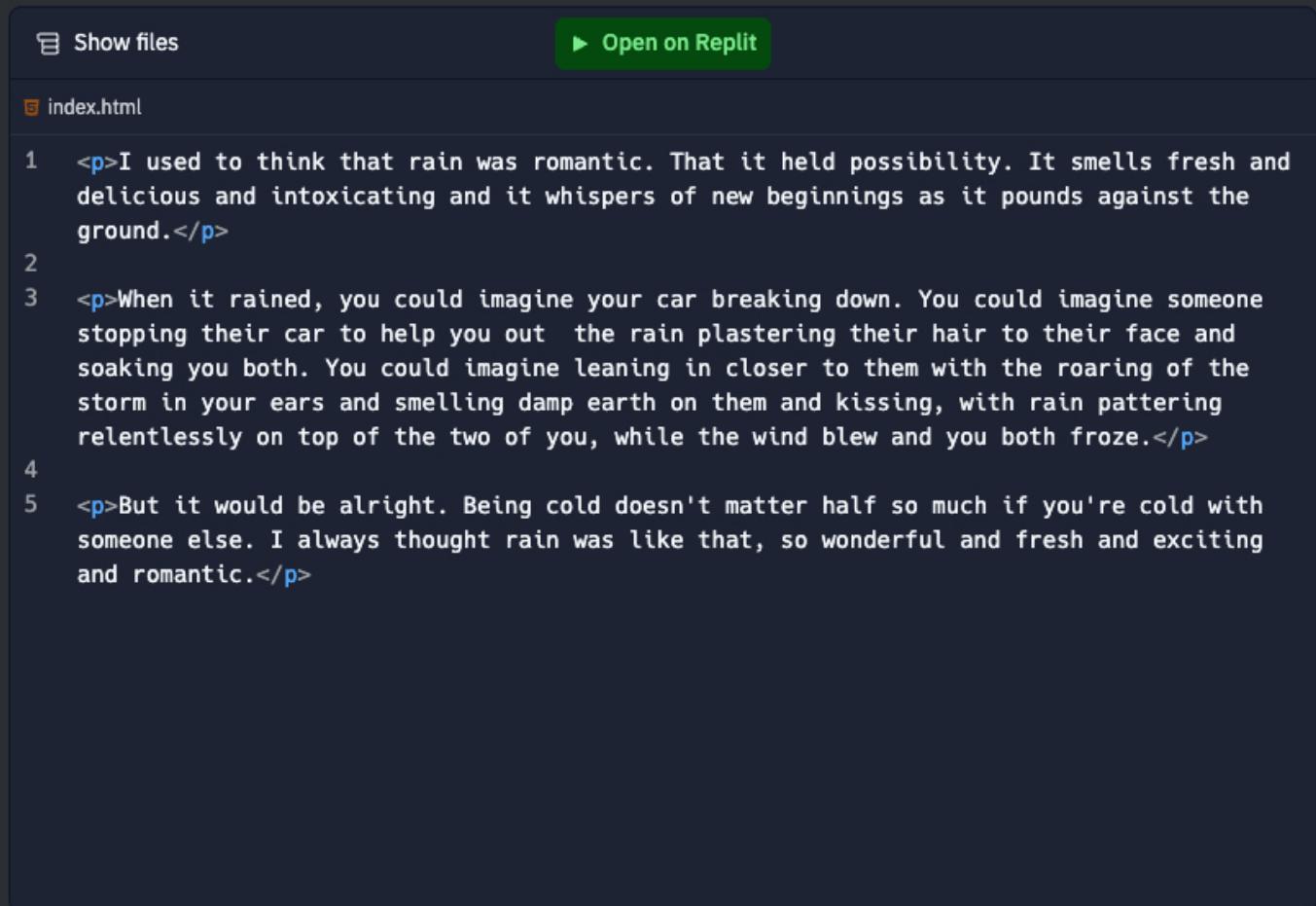
Take a look at the code below. This is called an *element*—specifically, an `<h1>` element. In fact, the entire line, from beginning to end, is referred to as an `<h1>` element.

## Demo: HTML paragraphs

Take a moment to answer these questions while reviewing the code in the [Repl.it](#) below. Feel free to make changes to the code to see what happens!

- What is the difference between an opening paragraph tag and a closing paragraph tag?
- What does adding spaces and hard returns between the sentences and paragraphs in the HTML code do? How do those spaces affect the paragraphs when viewed in the web page?
- What happens if the HTML code used to begin and end paragraphs is removed from all the text?

### Paragraphs @rootlearnhq



The screenshot shows the Replit interface with a dark theme. At the top, there's a navigation bar with a file icon, the text "Show files", and a green button labeled "Open on Replit". Below the navigation bar is a list of files, with "index.html" being the selected file, indicated by a blue background. The main area displays the content of "index.html":

```
1 <p>I used to think that rain was romantic. That it held possibility. It smells fresh and  
2 delicious and intoxicating and it whispers of new beginnings as it pounds against the  
3 ground.</p>  
4  
5 <p>When it rained, you could imagine your car breaking down. You could imagine someone  
6 stopping their car to help you out the rain plastering their hair to their face and  
7 soaking you both. You could imagine leaning in closer to them with the roaring of the  
8 storm in your ears and smelling damp earth on them and kissing, with rain pattering  
9 relentlessly on top of the two of you, while the wind blew and you both froze.</p>  
10  
11 <p>But it would be alright. Being cold doesn't matter half so much if you're cold with  
12 someone else. I always thought rain was like that, so wonderful and fresh and exciting  
13 and romantic.</p>
```

As you've witnessed firsthand in this demo, you need a `<p>` to begin a paragraph and a `</p>` to end a paragraph. As you add these paragraph tags to an HTML page, they will force space above and below

the text to help make the content more readable. If you play around with the spaces and hard returns, you'll notice that additional spaces or hard returns *without* paragraph tags may change the way the code appears, but they won't change the presentation of the web page. If all the tags are removed, the blocks of text will simply lump together and no longer be separated into discrete paragraphs.

## Drill: Paragraph practice

Now, it's time to apply what you've learned. Within this REPL, update the HTML so that each paragraph displays properly. You should have eight HTML paragraphs.

Practice-Paragraphs @rootlearnhq

Show files ▶ Open on Replit

index.html

```
1 A woman opened it just far enough to look out, and said, "What do you want, child, and why is that great Lion with you?"  
2  
3 "We wish to pass the night with you, if you will allow us," answered Dorothy; "and the Lion is my friend and comrade, and would not hurt you for the world."  
4  
5 "Is he tame?" asked the woman, opening the door a little wider. "Oh, yes," said the girl, "and he is a great coward, too. He will be more afraid of you than you are of him."  
6  
7 "Well," said the woman, after thinking it over and taking another peep at the Lion, "if that is the case you may come in, and I will give you some supper and a place to sleep."  
8  
9 So they all entered the house, where there were, besides the woman, two children and a man. The man had hurt his leg, and was lying on the couch in a corner. They seemed greatly surprised to see so strange a company, and while the woman was busy laying the table the man asked:  
10  
11 "Where are you all going?"  
12  
13 "To the Emerald City," said Dorothy, "to see the Great Oz."
```

When you're done, feel free to compare your practice project with the following [REPL](#), which has the code completed properly.

## HTML headings

As the name suggests, HTML headings are titles or subtitles that are used throughout a web page to break up, organize, and highlight content. HTML headings are defined using tags, like `<h1>`, in which the numbers in the tag suggest where the heading sits in the hierarchy.

Take a moment to review the Dogs or Cats? sample web page shown above. Did you notice that this web page has three different, and distinct, headings?

1. **A primary heading:** The heading *Dog or Cat?* is a primary heading.
2. **A secondary heading:** The subheading *What kind of person are you?* is a secondary heading.
3. **A tertiary heading:** There are two tertiary headings: *Dogs* and *Cats*.

There are six valid headings in HTML—**<h1>** through **<h6>**—with **<h1>** being the largest heading and **<h6>** being the smallest. However, it's important *not* to think of these headings simply in their visual style, like their size or boldness. You should think of each heading as representing a different level of importance.

An **<h1>** element is often the first, and more prominent, heading on a web page. It helps to identify the most important information, and it is often used for the company name, the website name, or a web page title. Because search engines use HTML tags to understand how to present content, a best practice is to use an **<h1>** only once per web page to help the **<h1>** keep its relevance in search engines.

## Drill: Headings and paragraphs

Within the [Repl.it](#) below, update the HTML code by making the proper headings and paragraphs. The notes suggesting headings and paragraphs can be removed.

### 🔗 Headings-and-Paragraphs-Practice @rootlearnhq

Show files▶ Open on Replit

index.html

```
1 (Heading 1:)
2 The Wizard of Oz
3
4 (Heading 2:)
5 The Rescue of the Tin Woodman
6
7 (Heading 3:)
8 Chapter 5
9
10 (Paragraph:)
11 So, while they were walking through the forest, the Tin Woodman told the following story:
12
13 (Paragraph:)
14 "I was born the son of a woodman who chopped down trees in the forest and sold the wood
   for a living. When I grew up, I too became a wood chopper, and after my father died I
   took care of my old mother as long as she lived. Then I made up my mind that instead of
   living alone I would marry, so that I might not become lonely.
15
16 (Heading 4:)
17 L. Frank Baum
18
```

Feel free to compare your practice project with this [REPL](#) that has the code completed properly.

---

## Attributes

Now that you're familiar with elements and tags, you're ready to explore a new HTML concept: attributes. Revisit the image below and take a look at the code below that.

You'll notice that this HTML element looks a bit different from what you've been working with. What makes it different?

```

```

In HTML, *attributes* are extra bits of information that are tied with certain elements. They are always written inside the opening tag, and they will always follow this structure: **attribute="value"**. Understanding this syntax will help you as you dive into HTML images.

---

## HTML images

At one point or another, you've likely heard of "embedding an image." Though that phrase may be used in the context of HTML, it's technically a misnomer. In HTML, images are actually *not* embedded into a web page, as they might be in a PDF or Google Doc. All images in an HTML page are separate files that must be located on a web server and then referenced on the web page in order to appear on the internet.

### Drill: HTML images

Take a moment to explore a bit more on your own. Try to answer the following questions using the code in the [Repl.it](#) below. You don't need to look up the answers or read ahead—just see what you can learn from reviewing and playing around with the code.

- How is the `<img>` element different from the `<h1>` and `<p>` elements?
- What does `img` stand for?
- What does `src` stand for?
- What does `width` stand for?
- What does `alt` stand for?
- No measurement is given within the `width` value. What measurement is it?
- When you change the `width` value, what happens to the image?
- When `width="500"` is removed, what happens to the image?

[Show files](#)[▶ Open on Replit](#)

The **src** in the image code stands for *source*. It references the online location of the image; in this case, **src** is referencing the **waterfall.jpg** that is located in the same folder as the HTML page. The **width** refers to the *width that the image will display* on the page, and it is always set in pixels. When a width size is not set, the image will display at whatever size the image file is naturally saved as.

The **alt** represents the *alternative text* that describes the image, and it should be applied to every image on a web page. Alternative text is important for several reasons:

- If the image link is broken, the alternative text will display for the user so they will know what image should appear on the screen.
- Alternative text is essential for accessibility. It's used by visual web readers, which will describe images to users who are blind or visually impaired.
- Providing an **alt** value will help improve the visibility of a website on the internet because it provides search engines with more detailed information.

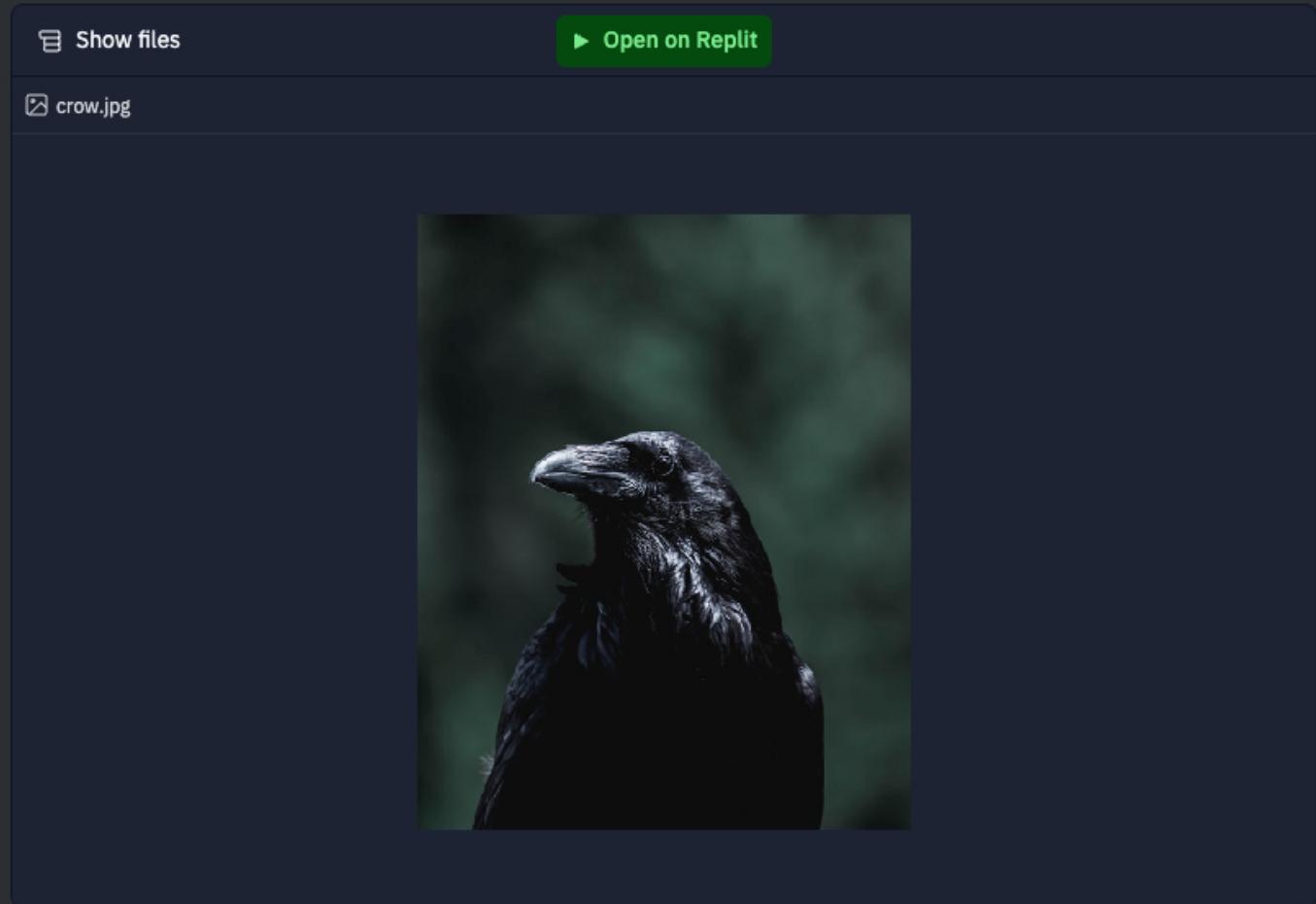
### Drill: Practice with images, headings, and paragraphs

You're ready to apply your new knowledge. In this [Repl.it](#), fork the code and update the HTML to complete the practice project. The notes suggesting headings and images can be removed. Set the **src** value to the following for the crow image and scarecrow image, respectively.

```
"./crow.jpg"  
"./scarecrow.jpg"
```

Using your own judgment, set an appropriate width for each image that presents each alongside the text in an attractive, visually compelling way.

Practice-Images-and-Text @rootlearnhq



Your final result would look something like this

```


<h1>The Wizard of Oz</h1>

<h2>The Search for the Wicked Witch</h2>

<h3>Chapter 12</h3>



<p>And the Wicked Witch said to the King Crow,  
"Fly at once to the strangers; peck out their eyes and tear them to pieces."</p>

<p>But the Scarecrow said, "This is my battle, so lie down beside me and you will  
not be harmed."</p>
```

<p>So they ~~all~~ lay upon the ground except the scarecrow, and he stood up and stretched out his arms. And when the crows saw him they were frightened, as these birds always are by scarecrows, and did not dare ~~to~~ come any nearer.</p>

<h4>(Crow & Scarecrow Photos by Dimitar Donovski on Unsplash)</h4>

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