Exercise 5

USING JAVASCRIPT TO GENERATE HTML

You've written HTML code directly in previous exercises by modifying the code of `index.html`. There's another way — using JavaScript to write directly to the web page. Let's do that now.

If you go to **Exercise 5** in your repl and run it, you'll see this sage quote: **Don't believe everything you read on the internet.** That's good advice, but there's no attribution. Let's add that using JavaScript.

Open `index.html` to see this snippet:

```
<body>
  <blockquote id="quote">
    Don't believe everything you read on the internet.
  </blockquote>
  <script src="index.js"></script>
</body>
```

That's the HTML we've got to work with. Our goal is to provide the author of the quote directly under the quote itself — like this:

Don't believe everything you read on the internet.
-- Abraham Lincoln

☐ Since we're writing all our JavaScript in `index.js`, let's open that up. The code we're about to write is a little more extensive than what we've written previously. Let's take it one line at a time.

```
let blockquote = document.getElementById("quote")
```

We've already used `document.getElementById` before. Here, we're using it to access the `<blockquote>` element in `index.html`.

☐ Our next line of code will also use `document`, but this time, we'll use a different function: `createElement`:

document.createElement allows us to create any type of valid HTML element

```
let attribution = document.createElement("div")
```

JavaScript operates in the user's browser. This code snippet creates an HTML element (a `<div>`) and stores it in the browser's memory.

When we wrote the HTML directly, we were able to write code like this:

```
<div>Hello</div>
```

When text is placed between opening and closing HTML element tags, it's called a "text node"

☐ Behind the scenes, the browser created something called a *text node* and placed **Hello** inside of it. It then nested the text node as a child within the `<div>`. Since we're doing this ourselves using JavaScript, we need to create the text node ourselves:

```
let textNode = document.createTextNode("— Abraham Lincoln")
```

☐ Now, we need to explicitly do the nesting of `textNode` inside of `attribution`:

```
blockquote.appendChild(textNode)
```

☐ Finally, let's nest `blockquote` inside of our `attribution` `<div>`:

```
attribution.appendChild(blockQuote)
```

Now run the repl. Remember — if you get stuck, refer to `answer.js`.

One last word: in this exercise, we broke some new ground and, frankly, I haven't given you a lot of explanation for how/why we're doing things. This is intentional on my part. Occasionally, an exercise won't make a lot of sense and may frustrate you. Hang in there. You don't need to understand everything; that will come in time. For now, just keep exposing your brain to things. Remember: you learned to do something far harder than programming: you learned to speak your native language. The same brain that saw you through that Herculean task will help you here too. Don't give up!