Outline

Checkpoint 3

CSS basics

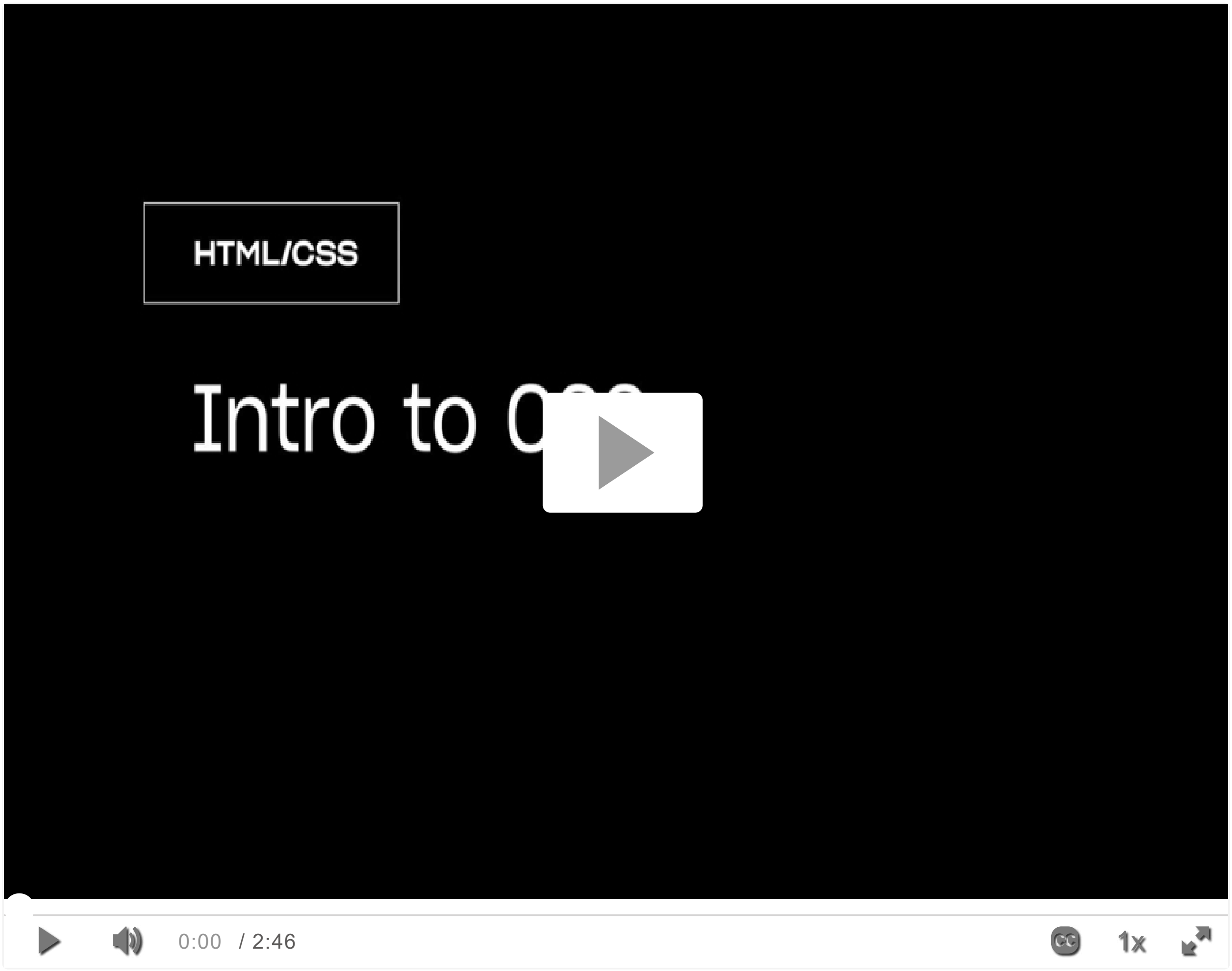
Now that you've got some HTML under your belt, it's time to sharpen your CSS skills. Understanding CSS is essential; it's what you'll use to control the style and presentation of elements on web pages. As a developer, you'll work with CSS code to format HTML text and make websites more user friendly, accessible, and visually compelling.

By the end of this checkpoint, you will be able to do the following:

- Style HTML text using CSS to change the font, size, and color of text
- Debug errors related to CSS styles within a pre-built web page

Intro to CSS styles

As you've learned, HTML is actually pretty boring on its own. That's where CSS comes in. CSS styles and formats HTML text, allowing it to display in various fonts, sizes, and colors on web pages. Although CSS was specifically designed to complement HTML, CSS code is u[illegible]ly written in distinct files, with filenames like `style.css`. This separation helps keep the HTML code and CSS code organized. This video will explain a bit more.



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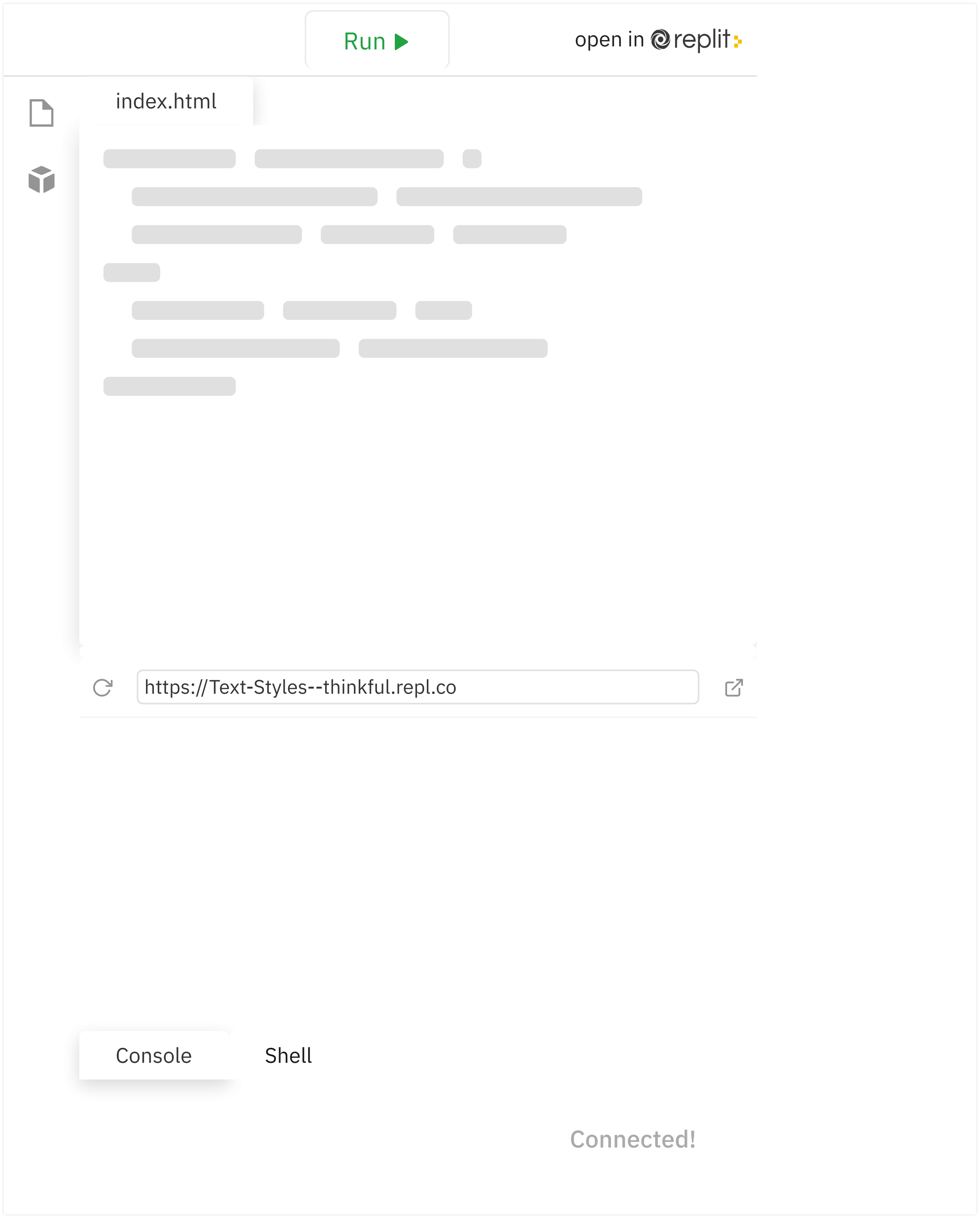
Demo: Text styles

This demo showcases how CSS styles can be added to HTML headings and paragraphs. As you review the code in the Repl.it below, take a moment to answer these questions.

- What does the first line of code do in the HTML?
- What happens if the first line of code in the HTML is deleted?
- Is there anything in the `.css` file that seems to relate to 's in the `.html` file? What possible connections or similarities do you

recognize?



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Now that you've played around a bit on your own, it's time to in gate further. As you may have noticed, the two files—the `.html` file and the

`.css` file—need to be connected. To connect the files, the HTML page needs to refer to the `.css` file like this:

```
<link href="style.css" rel="stylesheet" type="text/cs
```

Here, the HTML code is linked to the `style.css` file that is in the same folder as the `.html` file. But you'll learn more about this line of code later. For now, you just need this key information. This is how you'll connect the CSS code to the HTML code.

CSS rulesets

Like HTML, CSS has a particular syntax. To properly follow this syntax, you'll need to learn how it works.

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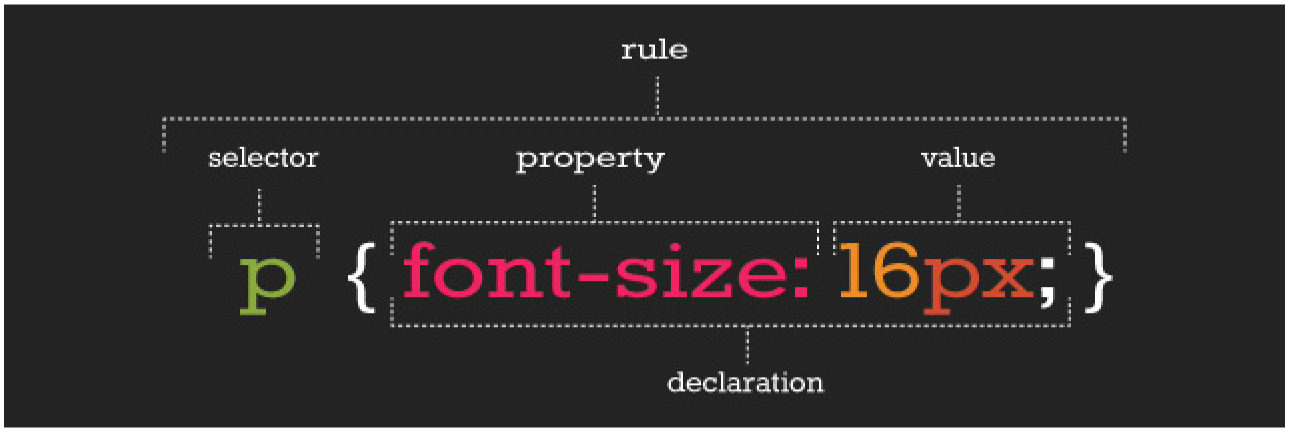
CSS is a collection of *rulesets*, which are commonly referred to as *rules*. These rules define what changes are applied to the HTML file. This image shows a single rule, which has several components: a selector, a property, a declaration, and a value.



Here's a quick rundown based on the image above. This will giv u a high-level overview before you dive deeper.

- **Rule or ruleset:** This is the entire block of CSS code assigned to style an HTML element.
- **Selector:** This is the name of the HTML element that will be styled.
- **Property:** This is a set or family of attributes, or options, that you can change.
- **Value:** This is the specific change you want to make, such as pixel size, color, etc.
- **Declaration:** This consists of both the property and the value assigned to the selector.

Selectors and declarations

A *selector* defines what element in the code should be affected by the *declaration block* that follows the selector. The selector refers to a specific HTML element, like a `p` element in the image above. In this case, every `p` element, or HTML paragraph, on the page will be styled by the information provided in the declaration block.

The declaration block begins and ends with curly brackets `{ }`. Each line inside of the `{ }` represents a separate *declaration*, each of which applies a particular style or format to the referenced element. For example, the CSS code below has two declarations. What does each one do?

```
p {
  color: blue;
  font-size: 16px;
}
```

As you can see, the declarations in the example above change the color and size of the text. Like in HTML code, spaces and hard returns in CSS code have no effect on how text is presented on a web page. But spaces and hard returns can provide visual organization in the code, which makes the code easier to read and understand.

Properties and values

Each declaration is made up of two components: a *property* and a *value*. At its most basic level, a CSS property is the general category or type of stylistic change you'd like to make. The value then specifies *exactly* what style you'd like to apply.

There are hundreds of CSS properties and values. The CSS Properties Reference from Mozilla is a valuable resource that shares only the most common properties. And as you'll see, it's still a long list! In fact, you will regularly discover new CSS properties and values over the course of your career.

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In a declaration, the property is named first. It's followed by a colon `:`, then the value, and then a semicolon `;` at the end. Structurally, declarations look like this: `property: value;`. One of the best ways to learn about properties and values is to see examples of how they work. Check out the one below. What do these declarations do?

```
h1 {
  color: white;
  font-family: 'Times New Roman';
  font-size: 16px;
}
```

As you might've guessed, the `color` property refers to text color, and the value `white` sets the color of the text to white. (It's worth noting that you'll often see hex color codes in the value position, but you'll learn about those later on.) The `font-family` applies a specific font to the text. Arial and Times New Roman are both common fonts found on nearly every computer. Font names with more than one word are wrapped in quotes, like `'this'`, to help the code read the font name properly.

The `font-size` property refers to how big or small the text will be on the page. The `px` value stands for pixels, and it sets the exact text size. Pixels are a common measurement for text on the web. But as you learn more about sizing, you'll discover other measurements that are particularly useful in sizing HTML elements.

Outline

Drill: Text-styling practice

In the Repl.it provided, fork the code and update the presentation of the HTML text using CSS. Specifically, try to match the target samples below by applying the CSS appropriate properties and values to the HTML headings and paragraphs.

Once you've matched the target samples with your code samples, practice using different values to change the presentation of the HTML web page. The following are sample values that may be useful.

- `color`
  - red
  - blue
  - green

    - pink
    - yellow
    - orange
    - black
- `font-family`
    - Arial
    - 'Arial Black'
    - 'Comic Sans MS'
    - Impact
    - 'Trebuchet MS'
    - 'Times New Roman'
    - Georgia
    - Webdings
    - Wingdings
- `font-size`
    - Practice using sizes that are between 8px and 108px.

Practice target #1

The Raven

Once upon a midnight dreary, as I pondered weak and weary,

Over many a quaint and curious volume of forgotten lore

While I nodded, nearly napping, suddenly there came a tapping,

As of someone gently rapping, rapping at my chamber door.

Practice target #2

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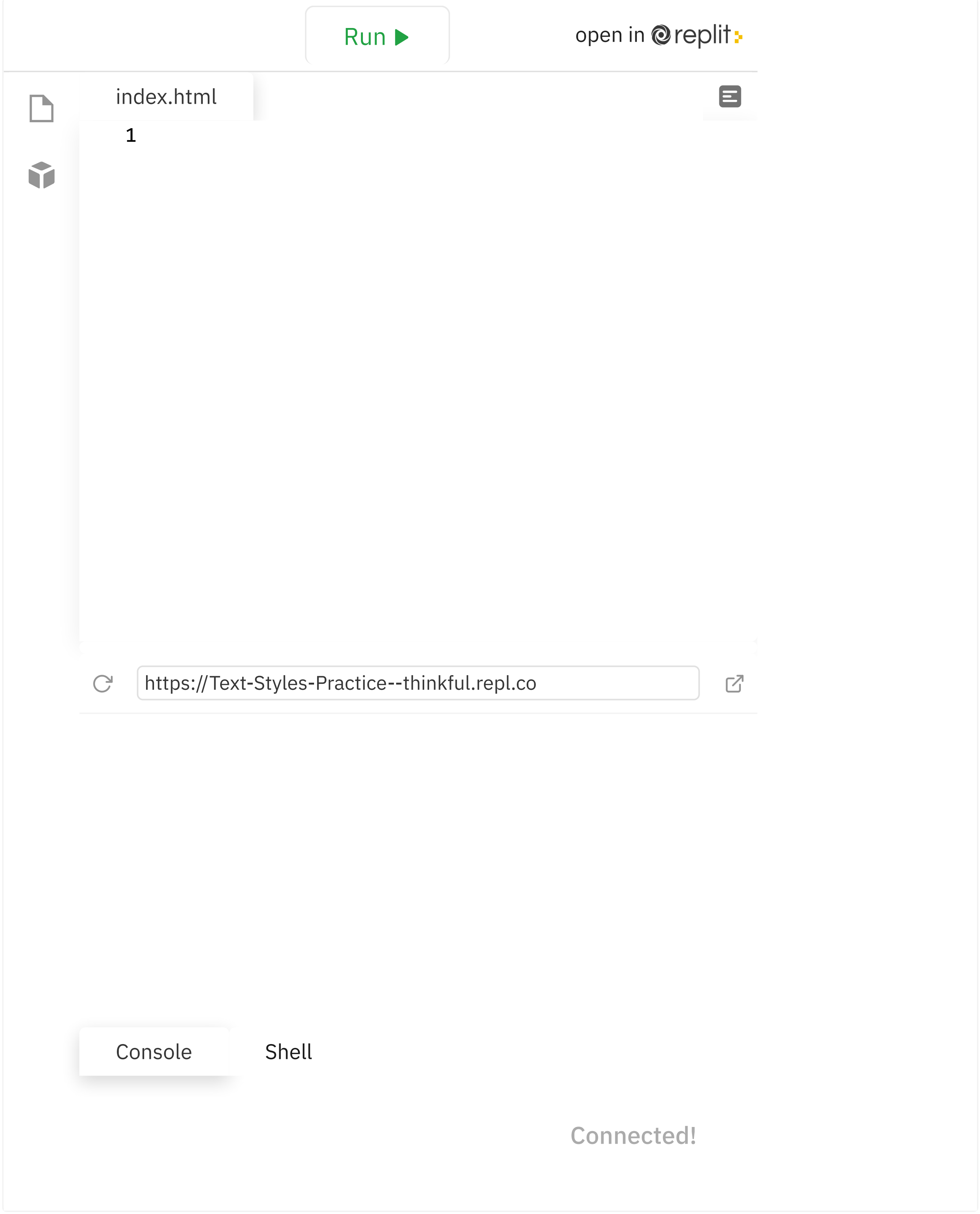
Outline

Once upon a midnight dreary, as I pondered weak and weary,

Over many a quaint and curious volume of forgotten lore

While I nodded, nearly napping, suddenly there came a tapping,

As of someone gently rapping, rapping at my chamber door.



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And when you've finished the drill, feel free to compare your code with these completed samples.

- Practice target #1, completed

- Practice target #2, completed

Intro to web colors

In the very early years of HTML, *color names*, like `white` above, were assigned to a limited number of color values. These color names are still in use, and they have the benefit of being fairly easy to remember and reference. But there's a major constraint: there are only 140 of them. Fortunately, there's now a solution to that problem: hex color codes.

Today, the far more robust and professional way of assigning colors is to use *hex color codes* (which are sometimes called *hex values*). Hex color codes tend to be less "friendly" than color names because they are represented by an alphanumeric code rather than a familiar word. For instance, the orange-red color name of *tomato* is far easier to remember than *#FF6347*.

However, hex color codes have expanded the internet's color palette considerably. There are now 16,777,216 possible color values for you to use, which is much more than 140. It's worth noting that when you do assign color values, you do not need to assign both a color name and hex color code. You just need to use one.

You should also check out this list of color names and hex color codes to see all 140 named colors and their corresponding hex color codes. Although you'll likely use hex color codes in your everyday work, it's useful to become familiar with the color names in case you work with developers that use color names as a shortcut in assigning color values.

The video below provides a bit more information on these two approaches to assigning colors.

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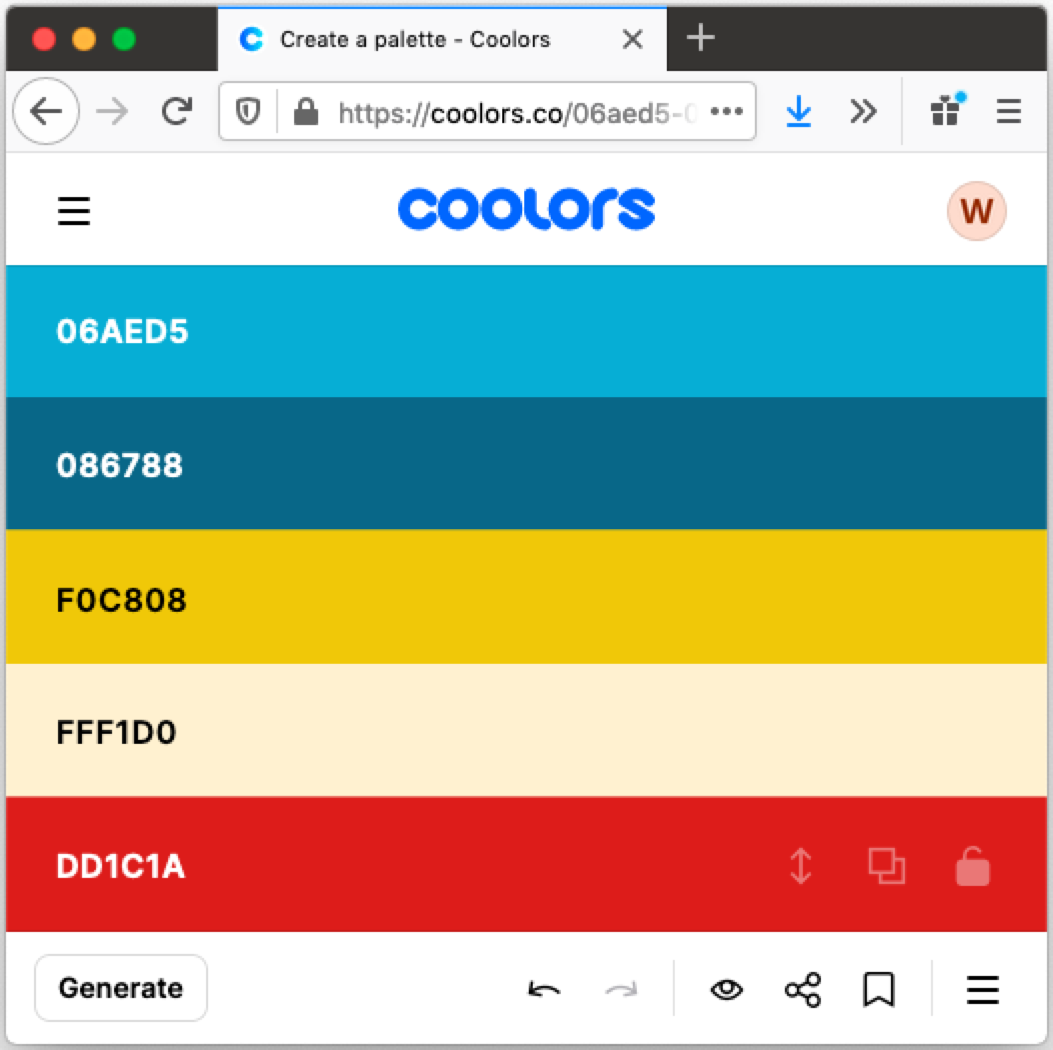
Finding color values

Hex color codes may be a little harder to recall, but the truth is this: you actually don't need to remember them. There are several ways to find hex color codes on the web when you need them, including many useful tools, plugins, and websites.

One useful tool is called Coolors. With a single click, Coolors will generate a color scheme for you to use. These colors, in combination with shades of white and black, will be more than sufficient for your work in this module.



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With that said, there are really only two hex color codes that you should memorize. Fortunately, they're fairly straightforward:

- **Black**: The hex color code for black is `#000000`.
- **White**: The hex color code for white is `#ffffff`.

As you can see, there is so much to learn about colors on the web. It's time to practice the basics that you've learned thus far.

Drill: Colors in CSS

In the Repl.it below, take a few minutes to change the colors of all the HTML text. Experiment with both color names and hex color codes. Don't worry about the quality of the presentation right now—just play around and practice assigning colors in the code.

Outline

Outline

More on fonts: Fallbacks

As you saw above, the `font-family` property assigns a part

font to HTML text. This capability allows to design written content on a web page using specific typefaces.

However, you may see declarations in which the `font-family` property is followed by more than one font value. Check out the example below.

```
h1 {
  font-family: Arial, Tahoma, serif;
}
```

This coding concept is referred to as *font stacks*, and it helps prevent issues if a computer or browser can't assign the requested font to the specified text. The font stack tells the code that if the first font—in this case, `Arial`—doesn't load properly, it should try the next font in the list. The code will try each font until it finds one that works properly. These are called *font fallbacks*.

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Generally, the last font choice should be a general category of typeface that every device can work with. It likely won't be another specific font, but a broader type of font style, like `serif` or `sans-serif`. All of the following font categories will reliably show up on every machine, and can therefore be used at the end of your font stack.

- `Serif`: Serif fonts are often used for headings. The letters in these fonts have little tapered ends or tails, which add a stylistic accent to text and make letters and characters more attractive at larger sizes.
- `Sans-serif`: Sans-serif fonts are often used for paragra xt on websites. They have minimal flaring or tapering at the ends of

letters, making smaller text easier to read.

- `Monospace`: These fonts are often used for code samples, and all of the letters have the same width.
- `Cursive`: This type of font has a playful, handwritten style, which can feel more emphatic than italics.
- `Fantasy`: This type of font has a whimsical, decorative style. But use this as a fallback with care; it's more limited than other font groups.

Drill: Font practice

In the REPL below, take a few minutes to change the fonts for the `h1`, `h2`, and `p` elements. Make the font for each element different, and include a fallback for each one.

Outline

Outline

More styles for text

As you explore CSS further, you'll likely want to play around with er text-related properties. Here are just some fun examples:

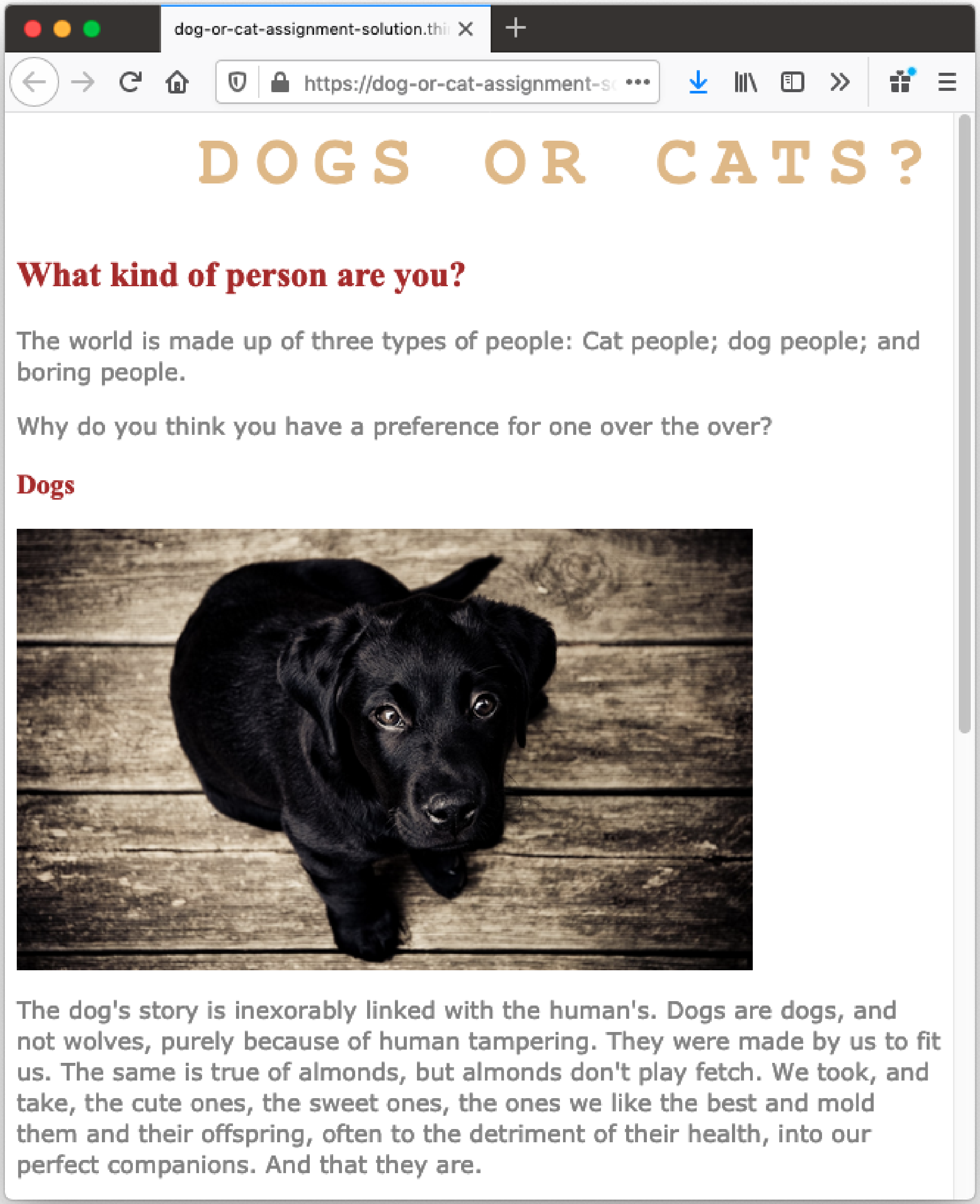
- `font-style`: This is how you can change the stylistic formatting of the font, such as adding italics (`italic` or `oblique`).
- `font-weight`: This is how you set the thinness or thickness of a font. There are usually values from `100` to `900` available.
- `letter-spacing`: This is how you determine the proximity of individual letters by increasing or decreasing the space between them, measured in pixels. For instance, a value of `1px` is fairly normal, or a value of `-3px` will pull the letters closer together.
- `line-height`: This is how you increase or decrease the space between lines of text. For instance, you could apply `20px` of space between lines of text.
- `text-align`: This property allows you to realign text to be `center`, `left`, `right`, or `justified`.
- `text-decoration`: This allows you to add additional formatting, like `underline`, `overline` (text with a horizontal line above it, often used in math notation), or `line-through` (also known as strikethrough).
- `text-transform`: This allows you to change the case of the letters, such as `uppercase` and `lowercase`.

Demo: More styles

Take a moment to practice applying these CSS rules to the HTML text in this Repl.it. Have fun trying out different properties and values!

Assignment

For this assignment, you will be styling the *Dogs or Cats?* web page shown in the image below.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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 over?

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.

Outline

To complete this assignment, follow the instructions.

1. Use CSS code to style the HTML page in the Repl.it below. Your goal is to make your web page look as much like the imag

possible. But don't stress too much about getting the colors or sizes exactly right. Just do your best.

2. Submit a link to your Repl.it in the box below.

When you have completed your practice project, feel free to compare your code with the completed project example below.

Dogs or Cats Assignment: Solution

Checkpoint

Submit your ideas or a link to your work here and use it as a conversation starter during your next mentor session.

This checkpoint will not be graded, but is still required.

Your work

03.04.21

Outline

Share your ideas here...

bold _italic_ `code` > quote - bullet list

Preview

Completed

Next checkpoint

Outline

How would you rate this content?

Report a typo or other issue

Go to Overview