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Web Development

Day 2: More About CSS

Colors, Fonts & Layout

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Warm up!

Today's Schedule

Morning:

- Activity Morning
- Recap of HTML & CSS
- Hex color codes
- Google Fonts
- Project: Build your own Mondrian

Afternoon:

- Layouts with CSS
- Flexbox Froggy
- Grid Garden
- Mentors visit

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Recap of HTML

Key Points:

- The "skeleton" of a web page
- HTML elements use angle brackets < >
- Most elements have opening and closing tags
  - **<p>**Your text here**</p>**
  - **<u>**Text to be underlined**</u>**
- Some elements take attributes inside the brackets
  - Image element needs a source:
  - Link element needs a URL: <a **href**="http://google.com">Link text

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Recap of CSS

CSS lets us add style to our pages using **selectors, properties,** and **attributes**.
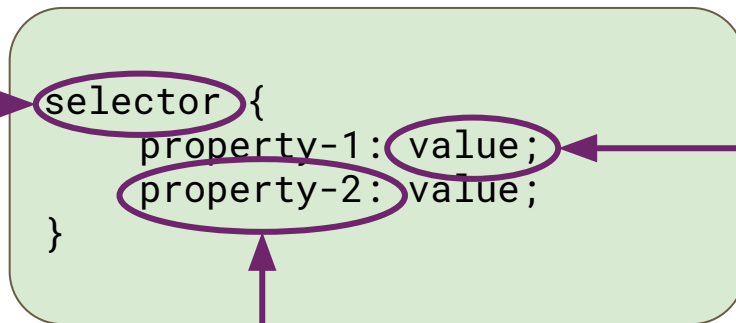
Styles can include:

- Color -- text, background, borders
- Font type and size
- Position and layout

Remember, our HTML gave us the content. CSS is what gives it the style!

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Anatomy of a CSS statement

The **selector** is <u>WHERE</u> the CSS will change the HTML.

```
selector {
    property-1: value;
    property-2: value;
}
```

The **value** is <u>HOW</u> CSS will change the element.

The **property** is <u>WHAT</u> the CSS will change, like background color or font type.

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Hex Color Codes

Colors can be added by using a named color or by using the hexadecimal code. Hex codes are represented by numbers 0-9 and letters a-f.

```
p {
    color: red;
}
```

```
p {
    color: #ff0000;
}
```

These are the same color!

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Hex Color Codes

- Our regular numbering system is decimal (base 10) and uses 10 symbols: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
- The hexadecimal system uses 16 symbols: 0-9 plus A, B, C, D, E, F
- Hex color codes combine to make 16,777,216 different colors
- Each hex color code is 6 digits and is specified like #RRGGBB
  - Digits 1-2 represent red. #FF0000 = red
  - Digits 3-4 represent green. #00FF00 = lime green
  - Digits 5-6 represent blue. #0000FF = blue
  - #000000 = black
  - #FFFFFF = white

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Font Types

Fonts are a quick and fun way to customize a web page.

Customary practices for fonts:

- Use only 1-3 fonts to keep page load time down
- Use one font for Headings or special call outs
- Use a "plain" font for the majority of the text so it's easy for users to read

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Font Types

Serif fonts are font types that have little lines at the end of larger strokes. Here are some examples of serif fonts:

EB Garamond

Georgia

Merriweather

Playfair Display

Times New Roman

Font Types

Sans-serif fonts are font types that do <u>not</u> have the little lines at the end of larger strokes. Here are some examples of sans-serif fonts:

Calibri

Montserrat

Nunito

Roboto

Verdana

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Font Types

Handwriting fonts replicate handwritten text and are good for accent. Types include:

AMATIC SC

Caveat

Comic Sans

Pacifico

Sacramento

Monospaced fonts have letters that take up the same width. They aren't used often in web development. They <u>are</u> good for writing out code examples, however.
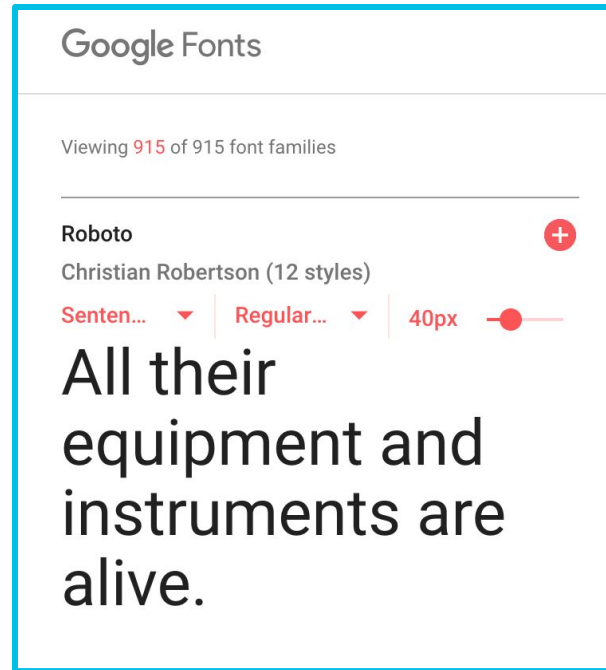
Courier New

Roboto Mono

Source Code Pro

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Google Fonts

Google Fonts (fonts.google.com) is a good source for free fonts.

Click on the example text and you can change it to your own text.

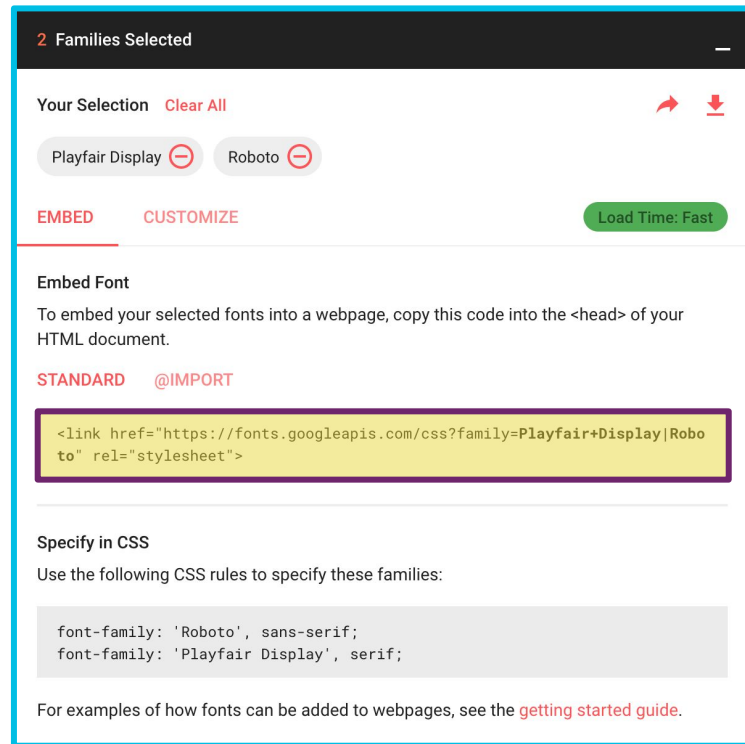Click on the orange plus to add the font to your selection.

Click on the font name to see more about the font.

Google Fonts

Viewing **915** of 915 font families

Roboto
Christian Robertson (12 styles)

Senten... ▼   Regular... ▼   40px

All their equipment and instruments are alive.

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Add Google Fonts to CodePen

Once you have selected a font (or two), click on the "Families Selected" drawer at the bottom of the page.

Copy only the URL from the <link> href attribute under STANDARD.
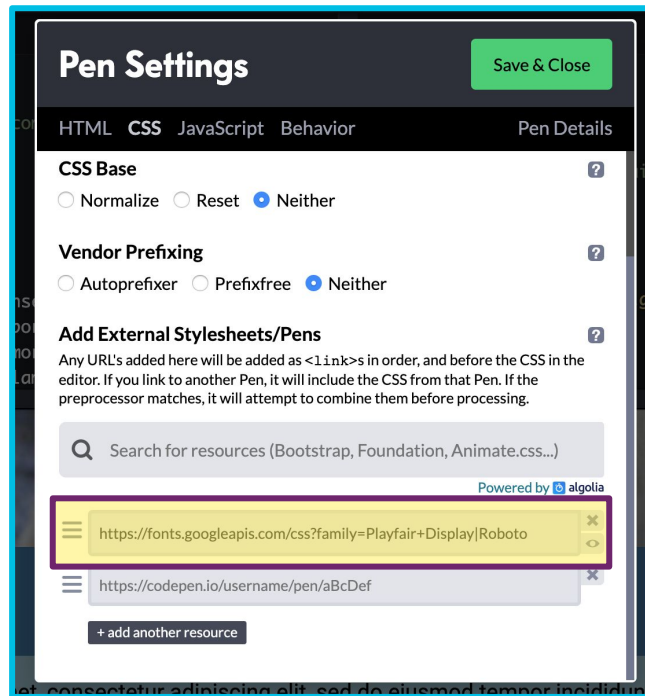

2 Families Selected —

Your Selection   Clear All

Playfair Display ⊖   Roboto ⊖

EMBED   CUSTOMIZE   Load Time: Fast

Embed Font
To embed your selected fonts into a webpage, copy this code into the <head> of your HTML document.

STANDARD   @IMPORT

```
<link href="https://fonts.googleapis.com/css?family=Playfair+Display|Roboto" rel="stylesheet">
```

Specify in CSS
Use the following CSS rules to specify these families:

```
font-family: 'Roboto', sans-serif;
font-family: 'Playfair Display', serif;
```

For examples of how fonts can be added to webpages, see the getting started guide.

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Add Google Fonts to CodePen

On CodePen, click the Settings button at the top of the Pen.

On Pen Settings, click CSS at the top.

Under "Add External Stylesheets/Pens," paste in the Google Fonts URL.
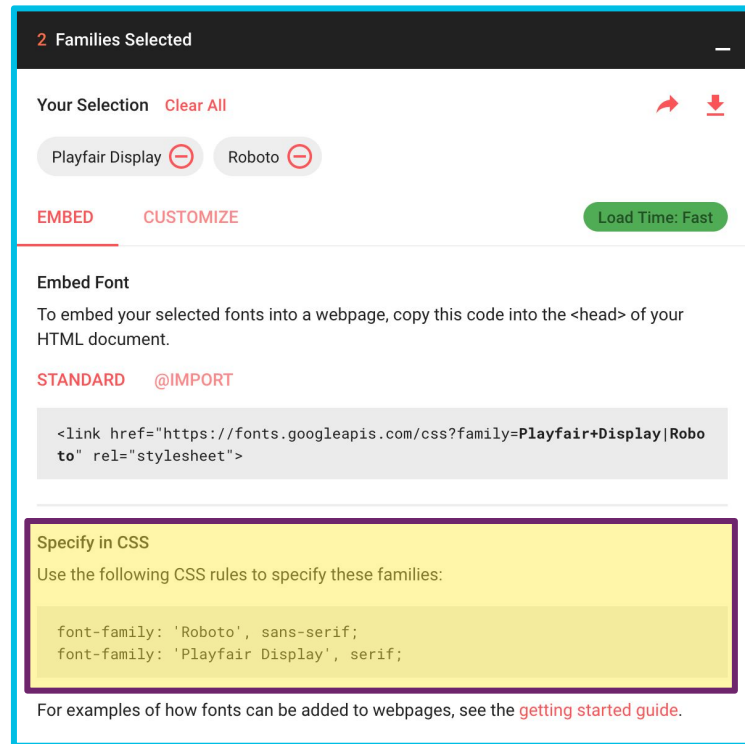
Add Google Fonts to CodePen

Now you can use the fonts!

Google Fonts shows you how to use them. Choose the element you want to style and apply the appropriate font-family.

You can also specify a backup font, in case the font doesn't load, but it's not required.

2 Families Selected —

Your Selection   Clear All

Playfair Display ⊖   Roboto ⊖

EMBED   CUSTOMIZE   Load Time: Fast

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Worktime

—

With hex color codes and Google Fonts, you can add more customization to your Fan Page.

Add a font (or two) and apply them to your page. Try changing some of the colors using hex codes.
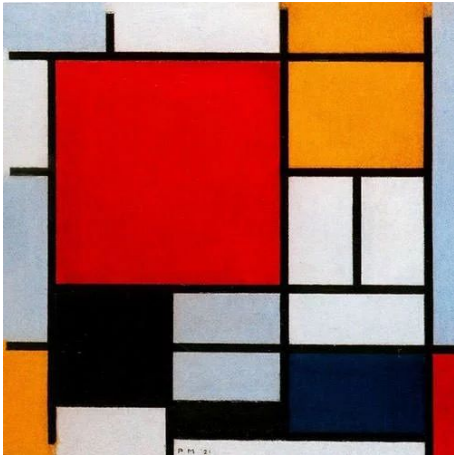
Other color resources:
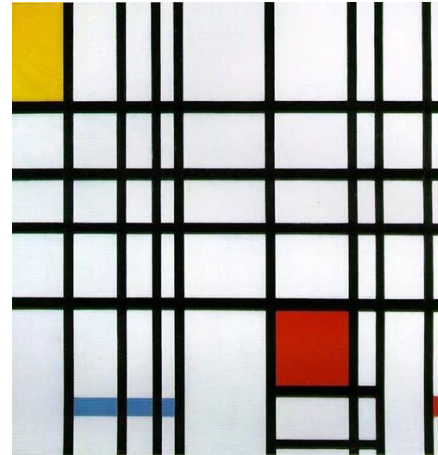www.w3schools.com/colors/colors_picker.asp

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Project: Make Your Own Mondrian

Piet Mondrian was a Dutch painter who is known for his abstract pieces that use straight lines and solid colors.

Composition with Large Red Plane, Yellow, Black, Gray and Blue

Composition II in Red, Blue, and Yellow

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Project: Make Your Own Mondrian

- Using color names or hex codes, add color to make a unique Mondrian-style image.
- Each section has a unique ID and text so you can see where it is on the page.
- Delete the text when you're done.

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CSS Layout

There are two main ways to create a layout with CSS: Flexbox and Grid

Flexbox

- Good for single dimensional content (rows <u>or</u> columns)
- Works on almost all modern browsers (98%)

Grid

- Good for two dimensional content (rows <u>and</u> columns)
- Works on most modern browsers (92%)

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Flexbox

flexboxfroggy.com

Flexbox Froggy is a game that teaches how to use Flexbox.

Work through the exercises at your own pace.

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Grid

cssgridgarden.com

Grid Garden is a game that teaches how to use Grid.

Work through the exercises at your own pace.

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Reflection

Write in your journal about how you feel or what you learned today.

Prompts:

- Between CSS and HTML, which do you like better so far? Why?
- CSS selectors can be challenging to understand. Is there something that helped you get the difference between elements, classes, and IDs?
- Did you get frustrated with they layout games? How did you deal with that?

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