CSCI-UA-4-005

Intro to Web Design + Computer Principles

Page Layout

Professor Emily Zhao

M/W 12:30PM – 1:45PM

Agenda

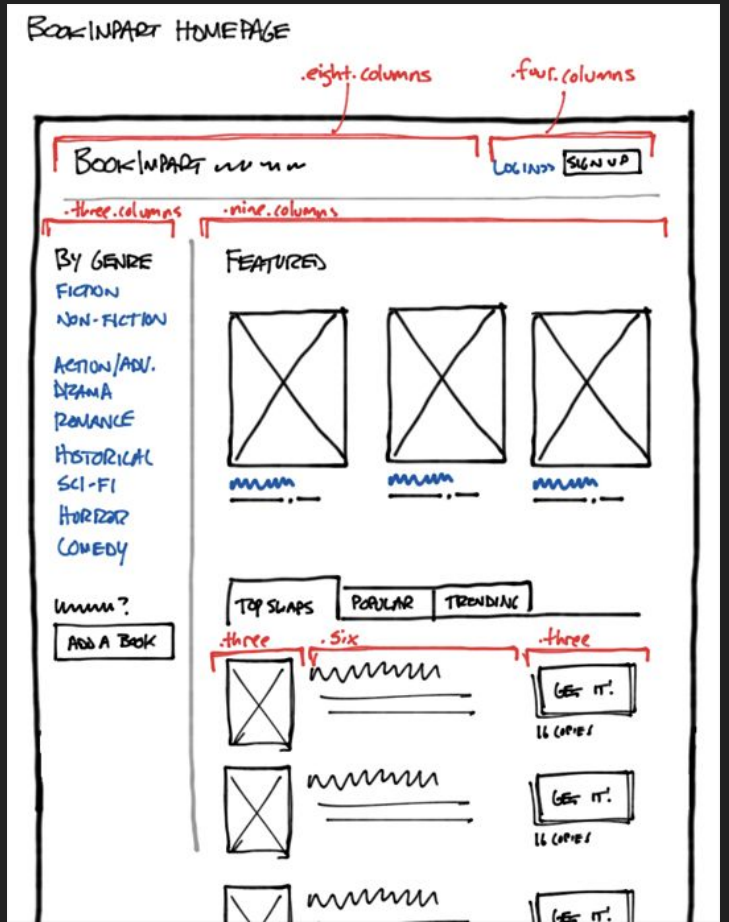
- Assignment #6 Introduction
- Wireframing
- CSS Grid Basics
- Using a custom font

Assignment #6

Wireframing

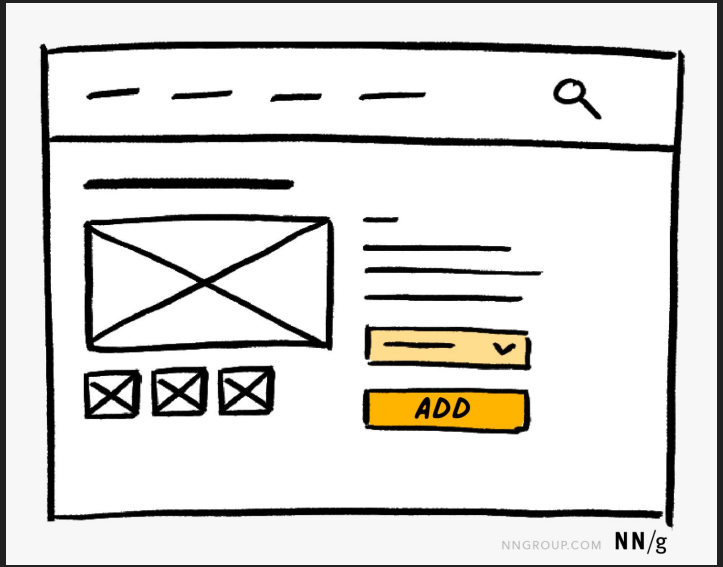
Wireframing

a visual representation or blueprint of a web page, mobile app, or user interface, created during the early stages of the design process



Key Principles of Wireframing

- Keep wireframes ***simple and uncluttered***. Use lines and basic shapes to represent elements. Avoid excessive details and overdesigning!
- Define the ***hierarchy of content*** – prioritize and differentiate elements like headings, body text, images, and calls to action
- Always ***design with the user in mind***. Consider the user's needs, goals, preferences, and abilities



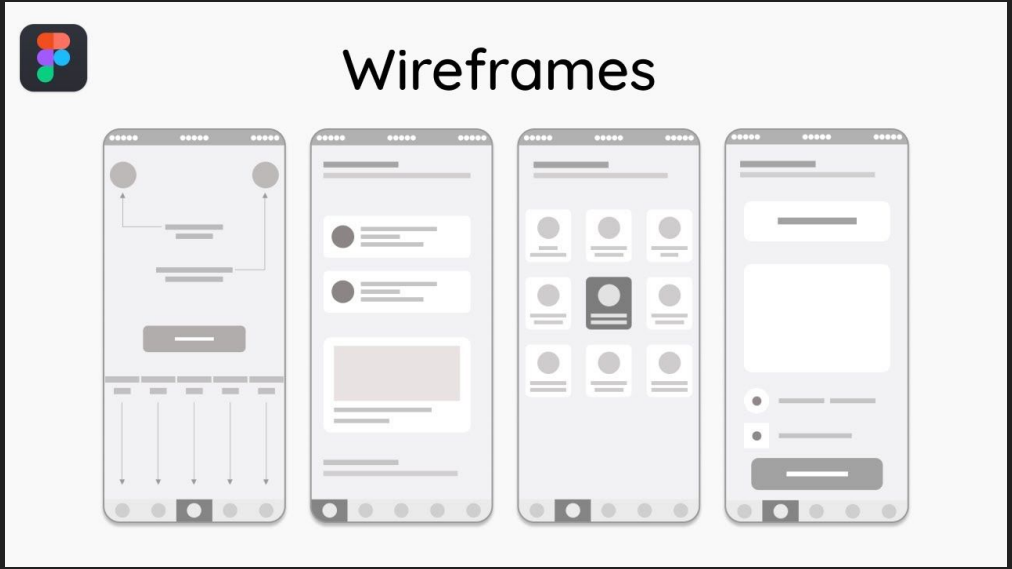
Wireframing Tools

Non-Digital:

- Pen and paper

Free Websites:

- Figma
- Adobe XD
- Wireframe.cc
- Canva



Wireframing Exercise: Designing a Login Page

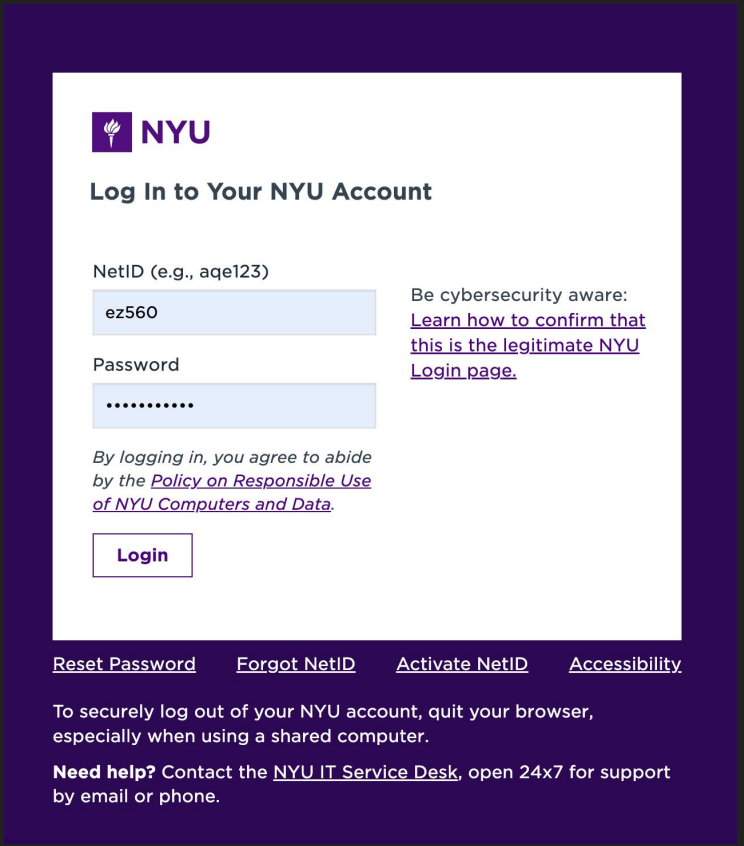
Wireframe a login page for a social media platform or website. The login page should cater to both new and returning users. Consider what elements, interactions, and design choices you need to incorporate to create a seamless and secure login experience.

Wireframing Exercise: Designing a Login Page

Possible elements:

- Username/email and password input fields
- Sign-in button
- Links to password recovery or account creation
- Social media login options (if applicable)
- Any additional security features (e.g., CAPTCHA, Two-Factor)
- Error messages and feedback

Look at examples/ how other people have done it!



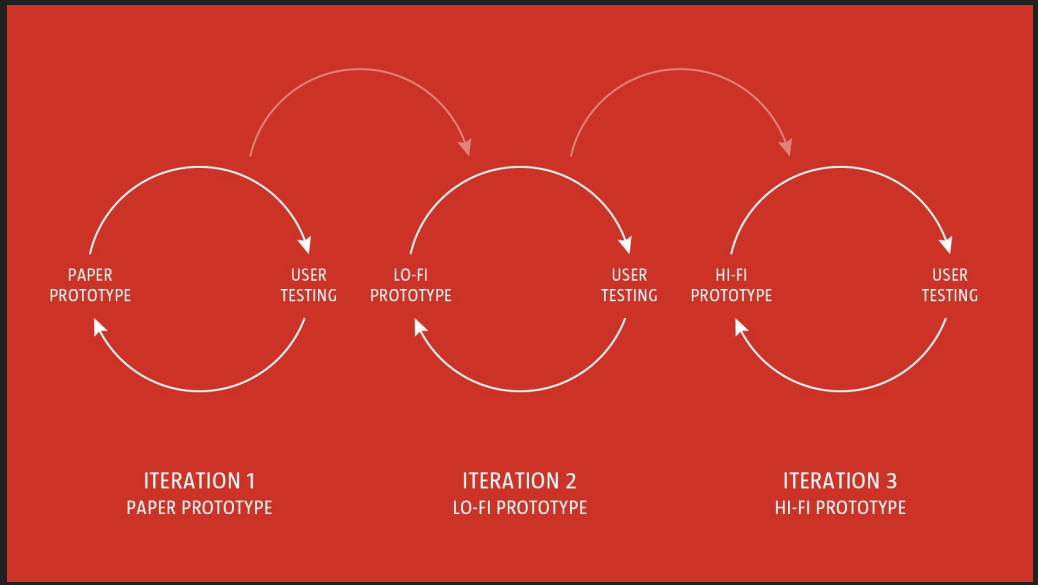
[Demo] Digitizing your wireframe with Figma

Wireframing is an iterative process

Here is an approach to wire-framing that can be adapted to a variety of design projects:

- Think
- Design
- Implement
- Revise

This sequence can be looped through as necessary.



Page Layout with CSS

Page Layout with CSS

There are several ways to design the layout of a web page with CSS

- CSS `float` property
- CSS `position` property
- CSS flexible box module (Flexbox)
- CSS grid module

CSS Float Property

The CSS float property allows you to position block elements inline.

This means that any element, block or inline, can be positioned alongside another element.

The CSS float property is an ***outmoded*** technique of web page layout.

CSS Positioning

The CSS position property specifies the type of positioning used for an element on a page.

`static`
Default document flow

`absolute`
Element is positioned relative to its first positioned (not static) parent element

`fixed`
Element is positioned relative to the browser window

`relative`
Element is positioned relative to its normal position

`sticky`
Positioned based on the user’s scroll position

CSS FlexBox

Use the CSS Flexible Box Layout Module (Flexbox) for arranging items along **one axis**.

Flexbox consists of flexible containers and flexible items within.

A flex container expands items to fill available free space or shrinks them to prevent overflow.

In practice, flexbox can accommodate different screen sizes and different display devices more easily than the CSS float property.

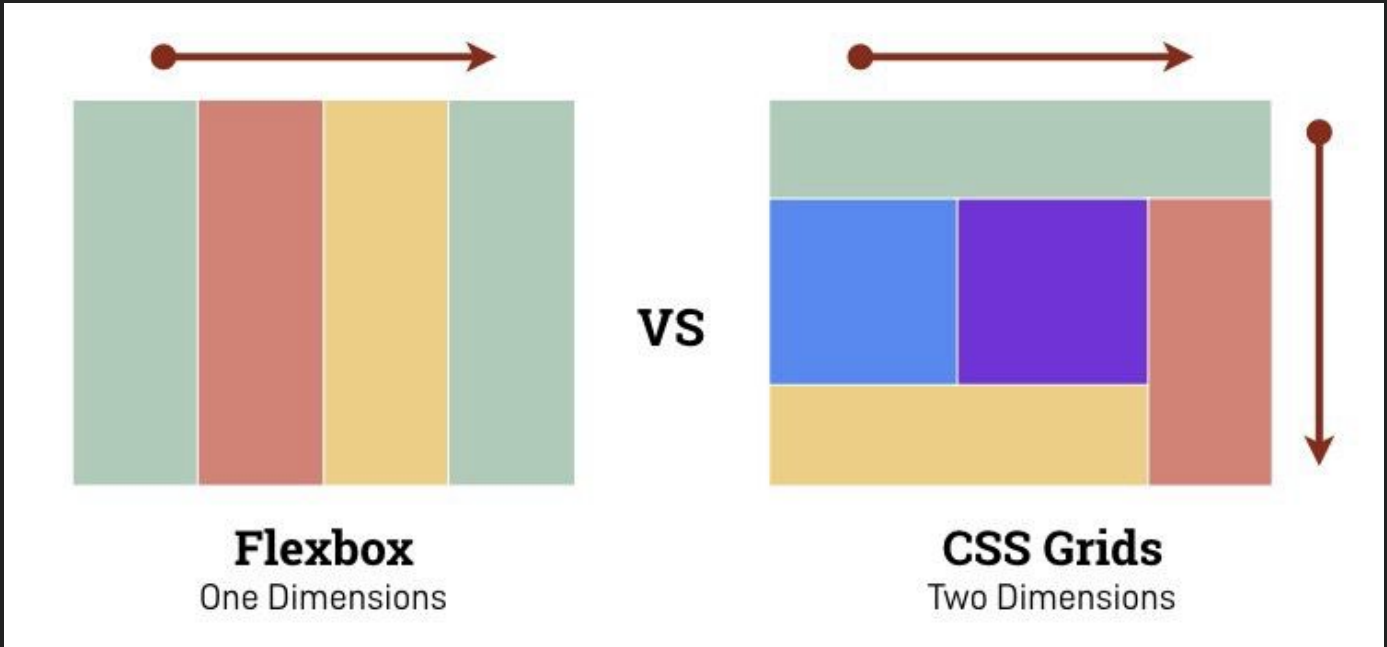
CSS Grid

Web pages are often laid out using grid systems.

CSS grids are intended to make this process more intuitive by defining a grid and then specifying where content should be placed within it.

The CSS Grid Layout Module can be used for the **overall structure of a page**.

FlexBox vs Grid



CSS Grid Properties

`grid-template-columns`
Specifies the number of columns and their widths
```
grid-template-columns: 60px 60px;
```

`grid-template-rows`
Specifies the number of rows and their heights
```
grid-template-rows: 40px 4em 40px;
```

`grid-gap`
Set the gap between rows and columns
```
gap: 10%; /* same spacing for both */
gap: 10px 50px; /* row space col space */
```

CSS Grid Properties

`grid-template-areas`

Specifies a unique grid using a series of nicknames for each cell of the layout

```
grid-template-areas:
    "a a a"
    "b c c"
    "b c a";
```

CSS Grid

Web pages are often laid out using grid systems.

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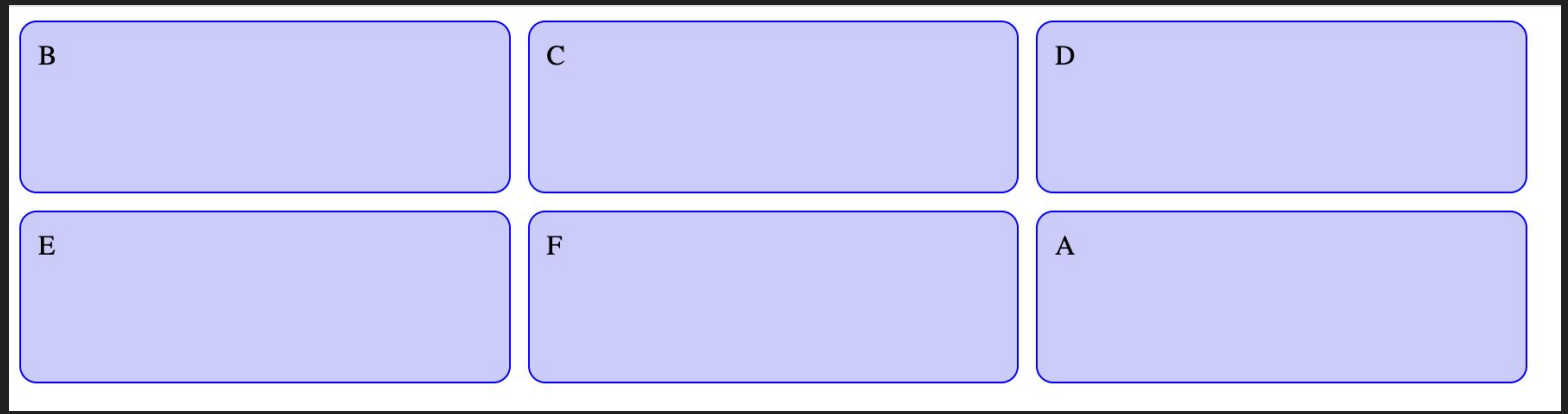
The CSS Grid Layout Module can be used for the **overall structure of a page**.

Grid Exercise #1

Let’s build the following layout using CSS grid:

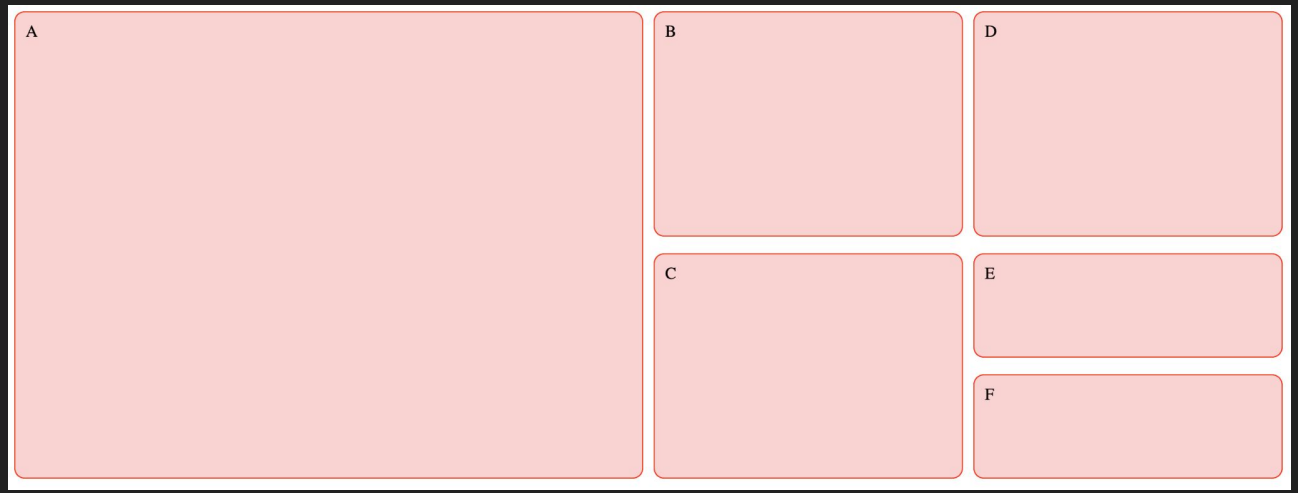
There are starter files available on the class website.



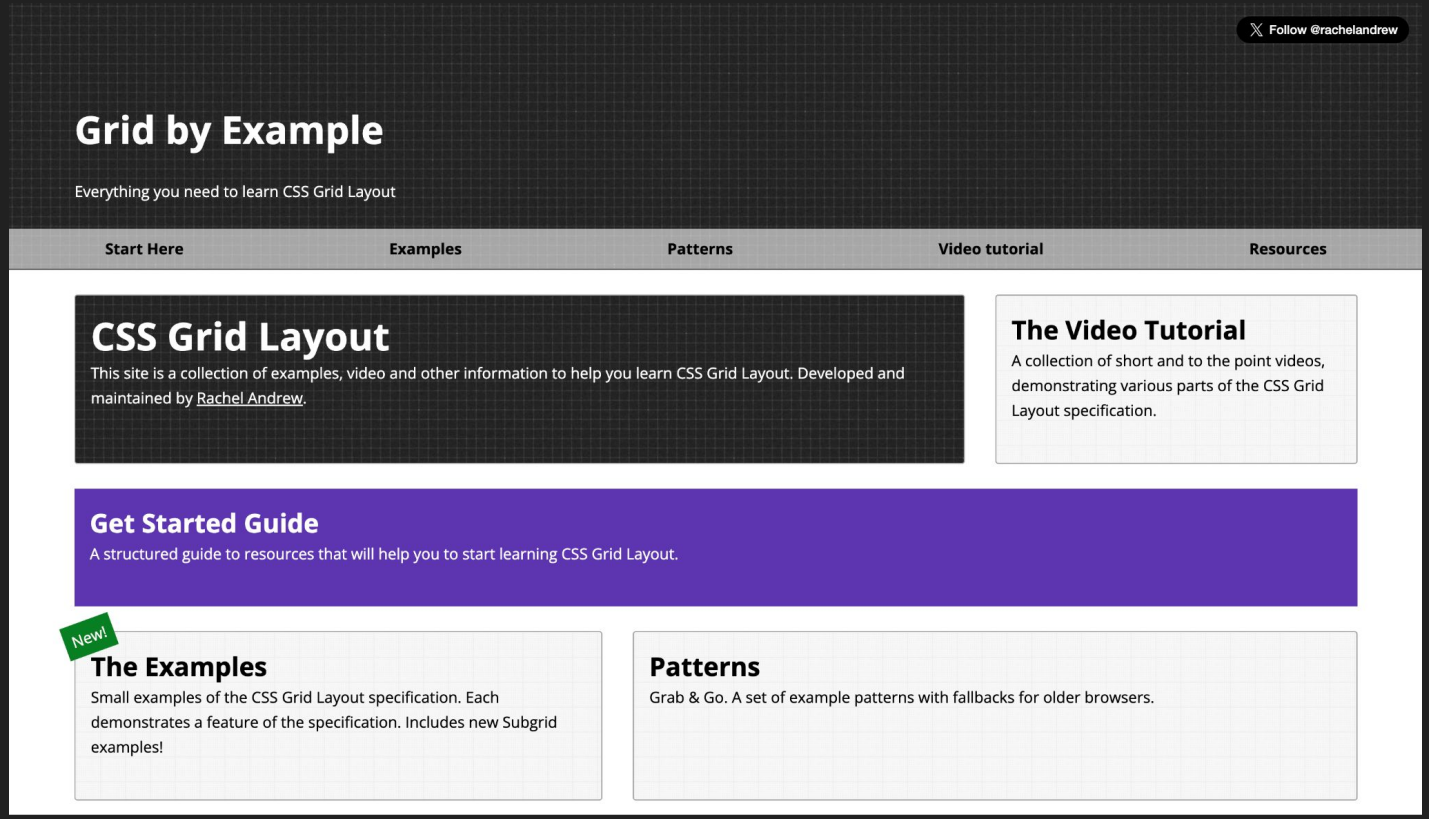
Grid Exercise #2

Try to build this one on your own!

There are starter files available on the class website.



What does CSS Grid look like in practice?



Importing your own Fonts

Importing Your Own Fonts

1. Choose a custom font
    a. Google Fonts
    b. Adobe Fonts
    c. Font Squirrel
    d. Dafont
2. Host the font
    a. Upload the font to your website's server
    b. Use a third-party service that hosts for you (i.e. Google Fonts)
3. Add CSS rule that references the font
4. Apply the custom font to your site

Hosting Your Own Font

```
/* CSS Rule that references font */
@font-face {
  font-family: 'CustomFont';
  src: url('path-to-font/customfont.ttf');
  font-weight: normal;
  font-style: normal;
}

/* Applying custom font to site */
h1, h2, h3 {
  font-family: 'CustomFont', sans-serif;
}
```

Third-Party Font Hosting – Google Fonts

Quickstart guides

Copy and paste this HTML into a file:

```
<html>
  <head>
    <link rel="stylesheet"
          href="https://fonts.googleapis.com/css2?family=Crimson+Pro">
    <style>
      body {
        font-family: 'Crimson Pro', serif;
        font-size: 48px;
      }
    </style>
  </head>
  <body>
    <div>Making the Web Beautiful!</div>
  </body>
</html>
```

Font(s)	Request
Crimson Pro (default)	`https://fonts.googleapis.com/css2?family=Crimson+Pro`
Crimson Pro Bold	`https://fonts.googleapis.com/css2?family=Crimson+Pro:wght@700`
Crimson Pro Regular & Bold	`https://fonts.googleapis.com/css2?family=Crimson+Pro:wght@400;700`
Crimson Pro Bold & Bold Italic	`https://fonts.googleapis.com/css2?family=Crimson+Pro:ital,wght@0,700;1,700`

→ Google Fonts Quickstart Guide

Third-Party Font Hosting – Adobe Fonts

To use these fonts on a web page, copy this code into the <head> tag of your HTML.

```
<style>
  @import url("https://use.typekit.net/ndg2ebt.css");
</style>
```

The default embed code is simplest to implement and ideal for most websites.

Fonts Added:

Panel Sans Regular

```
font-family: "panel-sans", sans-serif;
font-weight: 400;
font-style: normal;
```

Homework

- Midterm Reflection (due Wed)
- Assignment #6 (due next Mon)