

Front End Basics

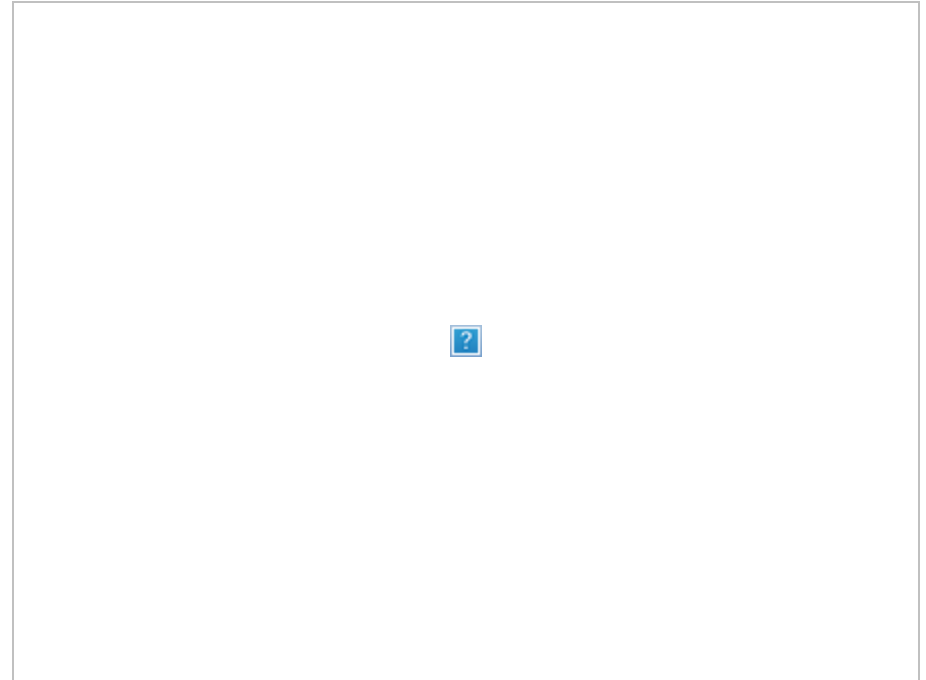
HTML, CSS, and JavaScript

Objectives

- Understand the difference between Front-End and Back-End Code
- Understand the roles of HTML, CSS, and JavaScript

Front End Vs. Back End

1. The Front End is the stuff that you see and interact with: HTML, CSS , and JS
2. The Back End is everything else: so many choices!
3. Restaurant Analogy: The backend is everything that happens in the kitchen; the front end is what is plated and sent to your table



HTML

- HyperText Markup Language
- Defines the structure of a webpage
 - "put an image here"
 - "put a form here"
- The "nouns" of a webpage

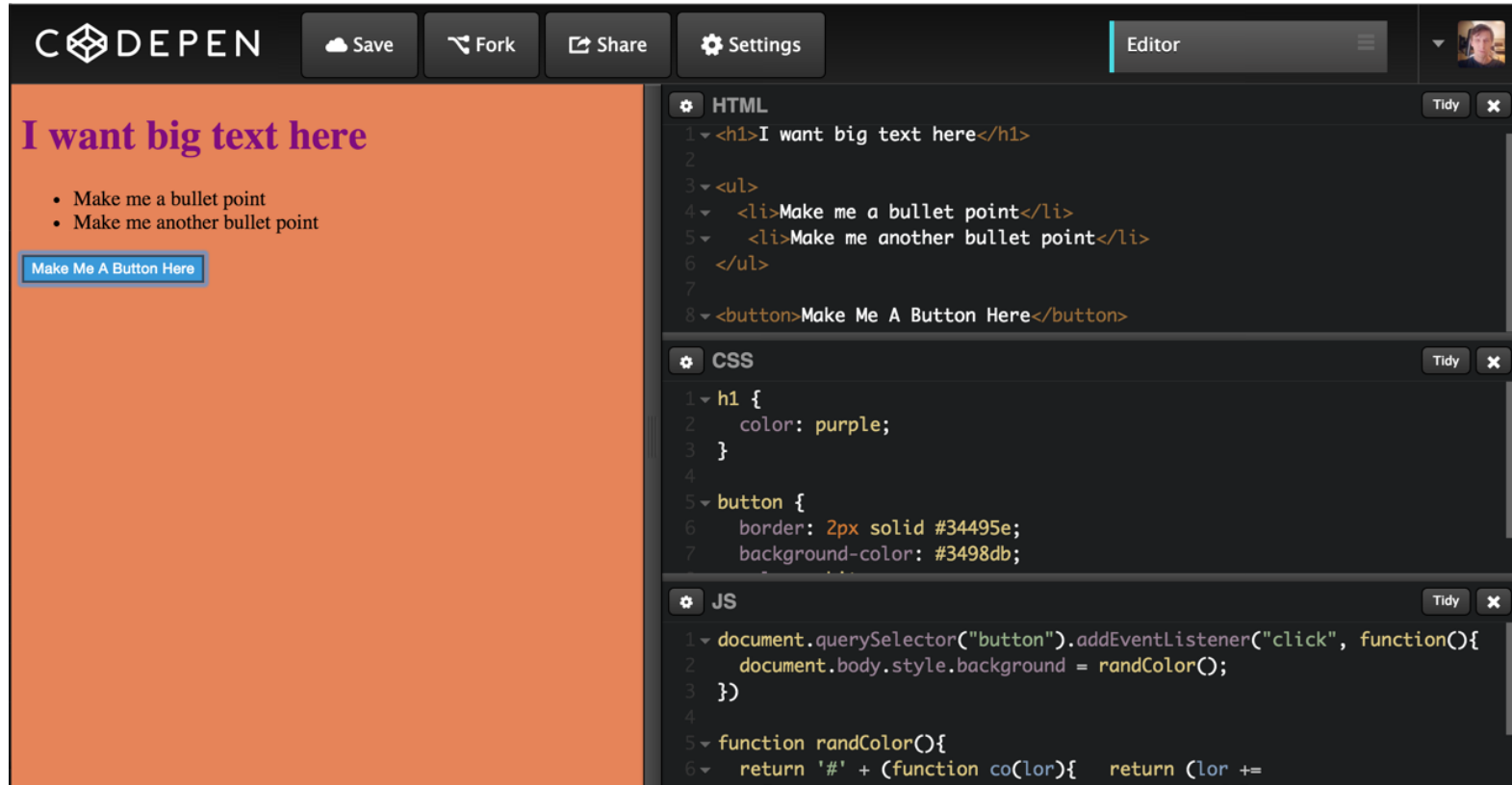
CSS

- Cascading Style Sheets
- Defines the style of HTML
 - "make all text purple"
 - "give the first image a yellow border"
- The "adjectives" of a webpage

JavaScript

- Adds logic and interactivity to a page
 - "Do some math"
 - "Change color when the user clicks"
 - "Load new data from twitter"
- The actions or "verbs" of a webpage

Demo CodePen



The screenshot displays the CodePen interface with a dark theme. The top navigation bar includes the CodePen logo, 'Save', 'Fork', 'Share', and 'Settings' buttons, along with an 'Editor' tab and a user profile icon. The main workspace is divided into three sections: a live preview on the left, and HTML, CSS, and JS code editors on the right.

Live Preview: The preview area has an orange background. It features a large purple heading 'I want big text here', a bulleted list with two items: 'Make me a bullet point' and 'Make me another bullet point', and a blue button labeled 'Make Me A Button Here'.

HTML Editor: The HTML code is as follows:

```
1 <h1>I want big text here</h1>
2
3 <ul>
4   <li>Make me a bullet point</li>
5   <li>Make me another bullet point</li>
6 </ul>
7
8 <button>Make Me A Button Here</button>
```

CSS Editor: The CSS code is as follows:

```
1 h1 {
2   color: purple;
3 }
4
5 button {
6   border: 2px solid #34495e;
7   background-color: #3498db;
```

JS Editor: The JavaScript code is as follows:

```
1 document.querySelector("button").addEventListener("click", function(){
2   document.body.style.background = randColor();
3 })
4
5 function randColor(){
6   return '#' + (function color(){ return (lor +=
7     0.00000001 * Math.random() * 16777215).toString(16).padStart(6, '0');
```