**1 - What is the most influential book or blog post you’ve read regarding front-end development?**

The most influential blog is [CSS-Tricks/](https://css-tricks.com/). It's a storehouse of web development treasures that will surely upscale the way the developer present web content. CSS-Tricks mostly focuses on CSS-related topics. The blog provides code snippets, leading-edge articles, videos, training courses, podcasts, and much more.

**2 - If you could master one technology this year, what would it be and why?**

If I could master one technology this year, I would masterNodejs. I find this to be one of the super coolest new technologies out there. It's basically a JavaScript webserver technology that can generate dynamic page content, can create, open, read, write, delete, and close files on the server, collect form data and add, delete, modify data in your database.

**3 - Describe any front-end web application framework (preferably one that you use). How does it work? What are the upsides and downsides?**

**I prefer using Bootstrap framework. Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.**

Bootstrap can be boiled down to three main files:

* [**bootstrap.css**](https://github.com/twbs/bootstrap/blob/master/dist/css/bootstrap.css) – a CSS framework
* [**bootstrap.js**](https://github.com/twbs/bootstrap/blob/master/dist/js/bootstrap.js) – a JavaScript/jQuery framework
* [**glyphicons**](http://getbootstrap.com/components/#glyphicons) – a font (an icon font set)

Additionally, Bootstrap requires [**jQuery**](https://jquery.com/) to function. JQuery is an extremely popular and widely used JavaScript library that both simplifies and adds cross browser compatibility to JavaScript.

**- Upsides:**

* **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
* **Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
* **Mobile-first approach:** In Bootstrap 3, mobile-first styles are part of the core framework
* **Browser compatibility:** Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Safari, and Opera)

**- Downsides:**

* There will be requirement of lots of style overrides or rewriting files that can thus lead to a lot of time spent on designing and coding the website if the design tends to deviate from the customary design used in Bootstrap.
* You would have to go the extra mile while creating a design otherwise all the websites will look the same if you don’t do heavy customization.
* JavaScript is tied to jQuery and is one of the commonest library which thus leaves most of the plugins unused.
* One of the main disadvantage of Bootstrap is that it isn’t backwards compatible. So, if your website is built with Bootstrap 3 and you replace all the CSS and JS files with those of Bootstrap 4, the design will break. The Bootstrap creators have made huge changes to CSS class naming and have improved the responsive nature of the resulting websites.

**4 - Write a JavaScript function that takes only one argument——another function——and returns a "memoized" version of that function. A "memoized" version of a function caches and returns the results of its call so that when it is called again with the same input, it doesn’t run its computation but instead returns the results from cache. Note that previous results should be retrievable in any order without re-computation.**

const memoize = (fn) => {

let cacheArgs = {};

return (...args) => {

let n = args[0]; // just taking one argument here

if (n in cacheArgs) {

console.log(n + 5);

return cacheArgs[n];

}

else {

//console.log('Calculating!');

let result = fn(n);

cacheArgs[n] = result;

return result;

}

}

}

foo = function (x) {

console.log("calculating!");

console.log(x+5);

return x + 5;

}

var memoizedFoo = memoize(foo);

memoizedFoo(5);

// calculating!

// 10

memoizedFoo(5);

// 10

memoizedFoo(10);

// calculating!

// 15

Running code in the attached 4memoizedFunction.html file.

**5 - Create a simple webpage that has a cow image in the middle (centered horizontally on the page) and a counter label below it. Add the necessary code so that every time you click the cow image, the counter is incremented by 1. The counter should start with a value of 0. You should include a brief explanation of your code. Also, here is a URL for a cow image,**[**https://upload.wikimedia.org/wikipedia/commons/2/21/Cow\_cartoon\_04.svg**](https://upload.wikimedia.org/wikipedia/commons/2/21/Cow_cartoon_04.svg)**, if you would like to include it in your answer.**

I made a div that contains the cow image and div with counter id. I used CSS to align my div in the middle of page. I used JavaScript to handle click event on the image. Every click on the image, I get the content of counter div and increases its value by one.

<head>

<meta charset="utf-8" />

<title></title>

<style>

.img-couter-div {

text-align: center;

}

.img-couter-div > img {

display: inline;

}

</style>

</head>

<body>

<div class="img-couter-div">

<img src="Cow\_cartoon\_04.svg" id="cow"/>

<div id="counter">0</div>

</div>

<script>

document.getElementById("cow").onclick = function () {

var counterDiv = document.getElementById("counter");

var count = parseInt(counterDiv.textContent) + 1;

counterDiv.textContent = count;

}

</script>

</body>

Running code in the attached 5CowImageWithCounter.html file.