**Front-End Developer Challenge and Questions**

We realize there are often multiple solutions or answers to the same questions and to the challenge in particular. We do not necessarily have “right or wrong” in mind, we are simply looking to learn a bit about you, and your approach to development.

**Questions:**

What front-end component libraries or frameworks have you used besides bootstrap?

- Materialize, lodash, apollo, axios, c3, jQuery, redux, jest, mocha

What tools would you implement to enforce code quality rules and standards?

- eslint, jshint, babel, typescript

What HTML templating languages or engines have you used?

- jade, mustache, handlebar

Which code related blogs or sites do you read regularly?

- Medium, hackernoon, devto, hashnode, react blog, dailyjs

In Sass, what is the significance of using an underscore at the beginning of a sass file name?

- The underscore lets Sass know that the file is a Partial. This means the file is only a partial file and that it should not be generated as a CSS file. This is useful for creating snippets of CSS to include in other Sass files and modularize your project’s CSS.

Name a few (npm) node modules that you think are most useful?

- express, mongoose, lodash, axios, webpack

Given the option to choose Angular, React or Vue.js for a new project which would you choose and why? What type of requirements might affect your decision to use one over the other?

- Most likely React, because it is the one I am most familiar with. My final choice will depend on other technologies being used, for example: DBMS, backend framework as well as the type of application being built, if its for just a proof of concept I might choose Vue.js for its simplicity, if its a large production application then I might consider React or Angular.

If you were referred to an unfamiliar node project repo, what file or files would you first look to, to determine the commands to run, build and test the project?

- readme.md, package.json

What is the benefit of using the HTML ‘nav’ element vs. a div with the class of .nav?

- The nav element is supposed to represent a portion of a page that links to other parts or pages within that page. The nav element is useful for accessibility, for example: screen readers for disabled users.

What code related framework, library or language do you want to learn next?

- Next.js, redis, rambda, golang, webAssembly

**Challenge:**

Utilizing React and Bootstrap, create a single, web page that collapses responsively from desktop to mobile, where the desktop and mobile breakpoints match the wireframe images provided.

The carousel at the top of the page should contain three slides – which can all display the same content, but the carousel itself should be functional in that clicking left or right will animate to the previous or next slide.

Additionally, in the mobile view, the “hamburger” (three lines icon) menu button should collapse and expand the navigation.

All other components are only present for layout purposes and do not need to function ie. navigation links do not need to lead anywhere, search does not need to function.

Utilize React for all functionality - do not include jQuery.

Bootstrap must be imported via Sass and compiled to CSS (Do not use CDN links for styles). Take care to demonstrate the use of modern, semantic HTML elements and CSS classes, and Sass style nesting in any custom CSS.

**Challenge Setup**:

Use Create React App to create your project and generate the output to a /dist folder using the build script.

Combine all of your challenge directory/files as well as this document with completed answers in a single .zip file and deliver back to us as soon as you have completed them.

Please provide your entire directory structure (with the exception of node\_modules) to keep total delivery size small.

Feel free to contact us with any questions and thank you for taking the time to complete these items!