Personal Portfolio

Introduction

Welcome to Coding Campus! Your first project is going to be to build a personal portfolio and corresponding blog which you will fill with your projects and thoughts throughout the next nine weeks. At the end of the course, this personalized portal on the web will be a critical tool for showcasing your newfound skills to prospective employers.

Throughout the course, each project will be accompanied by a series of documents like this one which will explain project setup, key concepts, and potential pitfalls. The readme files contained within each project will provide a minimalist introduction to project setup; these accompanying documents are where you'll want to come for further clarification.

Terminology:
- Front end: your web application's interface. This is the rendered view which end users interact with. Front end web development usually employs technologies such as HTML, CSS, and JavaScript. We'll also be using a framework called AngularJS. Since this is the part of the application that you can visually see, this is also what is being referenced when talking about web design.
- Back end: often referred to as server-side code, the back end is comprised of a server, application logic, and often a database. These three components allow a server to deliver the appropriate content to a client, manipulate client responses, and persist the resultant data.
- Technology stack: the layers of technologies that compose our application. A fully-featured application almost never consists of a single technology, instead relying on several different technologies for different parts of the application.
- Dynamic: in the context of web applications, this refers to the ability to continually change the contents of a page depending on the state of the application. These are the kinds of applications you will be building.
- Static: A pre-rendered, unchanging page.

Technologies:
- HTML: HyperText Markup Language, the primary language used to describe the elements on a web page.
- Jade: a templating language that reduces the amount of code you have to type to create HTML. Uses indentation (much like Python) rather than closing tages. You write Jade code, which is then compiled into the HTML that the browser reads.
- CSS: Cascading Style Sheets is a language used to describe the aesthetic properties of your HTML elements.
- JavaScript: the programming language of the web. We will use JavaScript and Python as our programming languages throughout this course.

- AngularJS: a JavaScript framework maintained by Google. This framework provides many great features, such as two-way data binding, making is easy to create dynamic web applications.
- Node.js: a platform frequently used to build server-side applications. Node uses the V8 JavaScript engine, allowing us to use JavaScript on the server, whereas previously it was primarily a client-side language.
- npm: Node's package manager. This allows us to install back-end dependencies.
- Bower: a front end package manager. This allows us to install front-end dependencies.

Seem like a lot of technologies? It is. One of the principle challenges of web development is integrating different technologies to form a cohesive whole. Don't worry, though. We'll take it one step at a time to ensure that you understand how each part works and the role it plays in our stack. We'll be using this stack for the first half of the course, and many of these technologies will be used through all nine weeks, affording the time you need to gain proficiency in them.

> Tip: you may want to maintain a list of flash cards as we move through the course. You will be rapidly introduced to many new concepts and keywords. At the end of this course, many of these keywords will appear on your resume, and you'll be expected to explain what they are, how you used them, and why they're currently relevant. If you choose to maintain a deck of flashcards for this course, my personal favorite flash carding application is Anki (http://ankisrs.net/) and its accompanying mobile apps.

With that out of the way, let's get started!

- Create an empty repository at GitHub (https://github.com/). You may want to name it "Portfolio."
- Open up your terminal
- Run the following commands:
  - **cd /tmp** # make sure this is a directory that exists
  - **git clone --bare git@github.com:DojoDevCamp/portfolio-seed.git**
  - **cd portfolio-seed.git**
  - **git push --mirror git@github.com:portfolio.git** # this will be different for you
  - **cd ..**
  - **rm -rf portfolio-seed.git**

What we've done here is clone the project seed to a temporary directory, push it to our own, personal repository, and delete the local files. You'll now want to create a new directory to host all of your projects from the semester. You can then **clone your remote portfolio** to this directory by getting the SSH or HTTP URL from your repository's GitHub page.

git clone your-github-SSH-URL.

Now that you've got the project code onto your machine, we need to **install Node** so that we can run it. If you haven't installed it already, download it from http://nodejs.org/.

Navigate to your cloned project from the terminal using cd path/to/your/project. Once there, run the following command:

npm install

Now that we've installed Node and our project's dependencies, we can run the server. You can run it from the terminal by executing the following command from your project's root directory:

./server/web-server.js

Alternatively, you can run the server directly from Pycharm. You will need to install the Node.js plugin (Pycharm > Preferences > Plugins > Browse repositories). Afterward, click the dropdown next to the "Run" button in Pycharm's top menu and select "Edit Configurations…" Add your working directory and JavaScript file (at server/web-server.js). If you run into trouble, see this page.
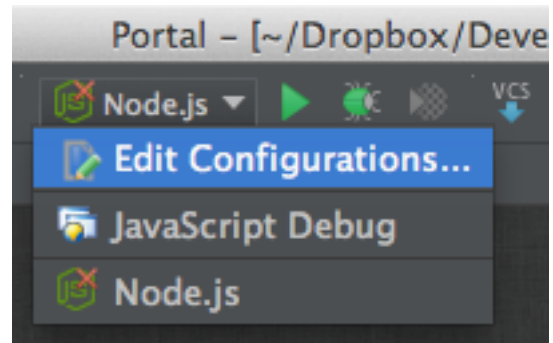
Finally, navigate to http://localhost:<port>/public/index.html in your browser to see the app running.

Supplemental material: if you want some guided hands-on practice with AngularJS, check out the official tutorial at http://docs.angularjs.org/tutorial. This will give you an idea of what's possible and may give you some ideas for your portfolio.