Boot Camp Pre-Work

# Assignment #2: My Future Job… I Think?

Technology, Tool, or Term re: Javascript Developer Job Position

References: <https://techterms.com/>, <https://en.wikipedia.org>

1. Javascipt - JavaScript is a programming language commonly used in web development. It was originally developed by Netscape as a means to add dynamic and interactive elements to websites. While JavaScript is influenced by Java, the syntax is more similar to C and is based on ECMAScript, a scripting language developed by Sun Microsystems.

JavaScript is a client-side scripting language, which means the source code is processed by the client's web browser rather than on the web server. This means JavaScript functions can run after a webpage has loaded without communicating with the server.

1. PHP - Stands for "Hypertext Preprocessor." (It is a recursive acronym, if you can understand what that means.) PHP is an HTML-embedded Web scripting language. This means PHP code can be inserted into the HTML of a Web page. When a PHP page is accessed, the PHP code is read or "parsed" by the server the page resides on. The output from the PHP functions on the page are typically returned as HTML code, which can be read by the browser. Because the PHP code is transformed into HTML before the page is loaded, users cannot view the PHP code on a page. This make PHP pages secure enough to access databases and other secure information.
2. HTML5 - HTML5 is the fifth major standard of HTML. Development of the standard began in 2007 and HTML5 websites started becoming mainstream in 2010. The final HTML5 standard was officially standardized by W3C on October 28, 2014.

The previous HTML standard, HTML 4.01, was standardized in 1999 – fifteen years before the HTML5 standard was published. However, in the decade preceding HTML5, most websites were written in XHTML, a more strict version of HTML published in 2000. HTML5 was designed to supersede both HTML 4 and XHTML by providing web developers with a simpler standard that includes several new features for the modern web.

1. API - Stands for "Application Programming Interface." An API is a set of commands, functions, protocols, and objects that programmers can use to create software or interact with an external system. It provides developers with standard commands for performing common operations so they do not have to write the code from scratch.
2. Java - Java is a high-level programming language developed by Sun Microsystems. It was originally designed for developing programs for set-top boxes and handheld devices, but later became a popular choice for creating web applications.

The Java syntax is similar to C++, but is strictly an object-oriented programming language. For example, most Java programs contain classes, which are used to define objects, and methods, which are assigned to individual classes. Java is also known for being more strict than C++, meaning variables and functions must be explicitly defined.

1. Bootstrap - Bootstrap is also a popular web development framework used for creating websites. It was developed by a team at Twitter and has been an open source project since 2011. The Bootstrap framework includes CSS styles, JavaScript libraries, and HTML files. Bootstrap provides a way for developers to easily build responsive websites rather than designing them from scratch.
2. Ajax - Ajax is a combination of Web development technologies used for creating dynamic websites. The letters stand for "Asynchronous JavaScript And XML." Therefore, websites that use Ajax combine JavaScript and XML to display dynamic content.

The "asynchronous" part of Ajax refers to the way requests are made to the Web server. When a script sends a request to the Web server, it may receive data, which can then be displayed on the Web page. Since these events happen at slightly different times, they are considered to be asynchronous. Most Ajax implementations use the XMLHttpRequest API, which includes a list of server requests that can be called within JavaScript code. The data is usually sent back to the browser in an XML format, since it is easy to parse. However, it is possible for the server to send data as unformatted plain text as well.

What makes Ajax so powerful is that scripts can run on the client side, rather than on the server. This means a JavaScript function can make a request to a server after a webpage has already finished loading. The data received from the server can then be displayed on the page without reloading the other content. If a server-side scripting language like PHP or ASP was used, the entire page would need to be reloaded in order for the new content to be displayed.

1. JSON - Stands for "JavaScript Object Notation" and is pronounced like the name "Jason." JSON is a text-based data interchange format designed for transmitting structured data. It is most commonly used for transferring data between web applications and web servers.

JSON is often viewed as an alternative to XML, another plain text data interchange format. In most cases, the JSON representation of an object is more compact than the XML representation because it does not require tags for each element.

1. Heroku - Heroku is a cloud Platform-as-a-Service (PaaS) supporting several programming languages that is used as a web application deployment model. Heroku, one of the first cloud platforms, has been in development since June 2007, when it supported only the Ruby programming language, but now supports Java, Node.js, Scala, Clojure, Python, PHP, and Go. For this reason, Heroku is said to be a polyglot platform as it lets the developer build, run and scale applications in a similar manner across all the languages. Heroku was acquired by Salesforce.com in 2010.
2. JQuery - jQuery is a JavaScript library that allows web developers to add extra functionality to their websites. It is open source and provided for free under the MIT license. In recent years, jQuery has become the most popular JavaScript library used in web development.

To implement jQuery, a web developer simply needs to reference the jQuery JavaScript file within the HTML of a webpage. Some websites host their own local copy of jQuery, while others simply reference the library hosted by Google or the jQuery server.

Extras:

1. Angular.js
2. Node.js
3. React.js