Audacious Android Programming and jQuery Mobile

By Lee Falta, Faculty, Bellingham Technical College

Days one and two were spent attending the Audacious Android Programming course, by Corinne Hoisington, where we received her new text, "Android Boot Camp For Developers Using Java, A Beginner's Guide to Creating Your First Android Apps" (ISBN 978-1-133-59439-0).

Why Android? Because over half the smart phones on the market are Android phones and it only costs a one-time fee of $25 to publish your applications on the Play Store (formerly known as Android Market). Apps can be written in various languages and methods – we learned how to do it using Java, Eclipse, a free integrated development environment (IDE), the Android Software Development Kit (SDK), which runs in Eclipse, and an Eclipse plug-in, called the Android Development Tools. Although a bit cumbersome to set up, the text did a good walkthrough, and once installed and configured, it was easy to use. By lunchtime on the first day, we had written our first (although pretty minimal) application. We plodded through her entire text (over 200 pages), and then proceeded to go through several other chapters on her yet-to-be-published extended version. We learned how to configure the user interface, accept user input, change colors and add radio buttons, use conditional statements, use lists, and arrays, and even audio. Although it was a quick whirlwind tour, I felt that I learned a great deal, and having the wonderful textbook that walked you through everything made a huge difference between understanding and being totally lost.

I feel that I can develop an introductory programming course, using this text, for our Computer Networking Program at Bellingham Technical College. It could either replace our current introductory programming course or be an elective course.

We also learned about a website where you can nearly instantly turn your non-mobile enabled website into a mobile one and I was able to convert Bellingham Technical College's website into a mobile site in a matter of minutes (http://mobile.dudamobile.com/site/btc_ctc_1)

The second class I attended was jQuery Mobile. This class was about making websites "mobile friendly" rather than building actual applications for the mobile device. One of the first things I realized was how many websites are *not* mobile friendly. We did not have a text for this book, although one on jQuery will be mailed to us at some point in the future. There do appear to be some decent books published on the subject, but none by Cengage apparently, who was the book sponsor. Justin Tauer of Easelsolutions was our instructor. He set up a blog (http://blog.easelsolutions.com/wc2012) for posting notes, downloads, etc. which was very useful and I will be able to use that as a resource in the future. We also heavily used the jQuery mobile site (http://jquerymobile.com) as a reference resource.

We used Adobe Dreamweaver CS6 for our development platform. It is quite expensive to purchase, although we learned as a student or instructor, you can purchase it on a subscription basis for only $30/month, which is substantially cheaper. (We were using a 30 day free trial version for the class). We also used Google Chrome for testing our sites. During the class we were introduced to some HTML5 as well. Setting up to use jQuery Moblie was fairly simple – we just went to the jQuery website and copy and pasted a few lines of code from the site to include 3 libraries in our HTML file. (They can also be downloaded to the local computer for offline development) We used xampp to be able to test our sites on an Apache web server on our own computers. We learned how to use themes, colors, buttons, pictures, and how to override default themes and colors. We learned how to incorporate database files into a mobile website as jQuery comes with MySQL. We also learned how to convert an offline HTML5 page to a native app using PhoneGap. I was actually able to successfully take my simple application and convert it and then install it on my phone using this technique. We learned how to use developer tools within Google Chrome by pressing F12 to open the toolbar within Chrome to debug your webpage. We also learned that it is much more difficult to develop applications for the Iphone/Ipad, (making me that much more glad I had just taken an Android programming class instead of an Ipad class!). To become an IOS developer, you have to get an Apple developer license, which costs $99/year. Then you have to go through an extensive process

to get apps onto an Ipad. It looks way too cumbersome and complicated to try to do in a classroom environment.

An interesting site we learned about was http://www.indeed.com/jobtrends - it is a great site for showing job trend comparisons. You can enter in key words like Android, Mobile development, jQuery, or whatever, and see what people are looking for in new hires. This is a great site to show students for motivation.

I feel that I could develop an elective course around jQuery Mobile, although it would take me quite a bit of work as I've not done any web development in the past. An alternative could be to add a small section of it to our Apache Web Server class, just to show what can be done here.

Both classes were great learning experiences and I'm eager to play around with some more development on my own this summer so I don't forget what I've learned and also to try and begin developing an Android programming course.