**Design Document Plan**

For the design doc, each person is going to do the following:

**Jiawei Liu:** iOS UI; Web Control Panel UI; Remote API Interactions

I am going to write about how to use Xcode to design a highly-efficient and clear UI for users. Then, I will use Bootstrap and jQuery to design a website to let our client create waypoints by clicking maps. Finally, I am going to use NSURLConnection class to connect our server and download the content package for using app offline.

**Charles Henninger:** Map Rendering; Android UI; Remote API Interactions

I’ll be running through how I will be using XML to design the UI, including the different functionality of the UI, and the aesthetics I will be creating, with some focus on how they conform with Android UI guidelines. For the map rendering, I will be describing the Mapbox library in depth, focusing mainly on the functions and sections of the library that will allow us to render a map tile offline. Lastly, I will be describing the exact process of using the DownloadManager class to command large file downloads.

**Duncan Millard:** Server Configuration; Compression; API and Database Design

I’ll be describing the software requirements to get our server setup and ready, covering the web server needs, operating system, and database software for the first bullet point. For the Compression section, I will describe the process of packaging our Content Packages and storing them for use in our database. On the last point, I will be covering how we will accomplish our external API for the mobile applications to talk to, as well as how the Content Package database will be constructed.