**CS 4720 - F17 - Final Project Documentation**

Device Name: Yanma Platform: Android

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App Name: CacheMapper

**(Project proposal section)**

**Project Description:**

Our app, CachMapper, will provide a connecting service through which geocaching hobbyists can digitally connect and participate. Geocaching is a popular outdoor recreational activity involving the hiding of and visiting of cache sites around the world, where a logbook/ any items are stored in a waterproof container and hidden in an unmarked outdoors location. Our app will facilitate that hobby by providing local cache sites through GPS, allowing cachers to add their own sites (including pictures and descriptions of their caches), and digital logging profiles for users to see listings of visitors to caches. It will further connect users by allowing them to share via social media and through the app itself their visits.

What we propose to do is create an app that will do the following:

* The system shall allow a user to create a profile using a username and password.
* The system shall allow a user to access a GPS generated map of cache sites worldwide;
* The system shall operate as a background service allowing users to use other mobile applications while on the road to a cache site;
* The system shall allow a user to log their visits
* The system shall allow a user to create their own cache site, complete with a picture and a description, and register that cache site with the app
* The app will allow the player to search for directions to a cache location using google maps

We plan to incorporate the following features:

* GPS/ Location awareness: the application will give the user access to a satellite generated map indicating their position relative to registered caches.
* Camera: the application allows users to access their camera when registering a cache site for taking pictures to be associated with that cache’s page
* Build and consume your own web service using a third-party platform - cache information will be stored via the web service Firebase
* Data storage using key/value pair storage - We will store the user’s account information along with other basic information on the device.
* Open shared activity / features - We will provide the user with the ability to search for directions to get near the cache location using google maps