**Installing Luna on Windows OS**

Step 1: Downloaded the Microsoft Visual Studios Community. After it has downloaded and installed you will then see multiple programs within Visual Studios you may install. Select and install both the basic visual studios editor (note: this will be installed automatically!) as well as the "Mobile App development environment with Javascript". Install this by checking its box and then selecting the install button at the bottom of the page. Note that the Visual Studios Editor is free to UK CS students and can be installed at the following link: <https://www.cs.uky.edu/csportal>. Once logged on, click the MSDNAA link on the left.

Step 2: Download and install NodeJS. NodeJS can be installed at the following link <https://nodejs.org/en/>.

Choose version v6.11.0 LTS. This is the version that is recommended for most users.

Step 3: Download and install "GitBash" or a similiar termial. Having a terminal window similiar to a Linux environment is crucial and GitBash appears to be recommended the most for Windows users as the Windows OS doesn't readily/easily have a terminal available as a MAC OS does. GitBash can be downloaded and installed at the following link: <https://git-scm.com/downloads>. After going to this site click on the Windows link and the installation process should begin.

Step 4: Download and install Ionic by opening up a GitBash terminal window and running the command "npm install -g ionic cordova". Note that if you are asked to update anything while in the terminal while the installation process is going select "yes". This should install Ionic, the Ionic 2 framework, and Cordova which will allow for the creation of applications.

Step 5: Install the Ionic templates to Visual Studios. Note that the templates you have to install with Visual Studios 2017 is the Ionic 2 Framework even though it is still in its Beta development stages. In order to properly install the Ionic templates to Visual Studios follow the process shown at the following link: <https://taco.visualstudio.com/en-us/docs/tutorial-ionic/>

Step 6: Copy over the LUNA\_APP.zip file provided by the instuctor, Dr. Piwowarski. Then use the GitBash terminal and the unzip command to unzip all the files. Note that you can't simply extract all the files as this won't work creating paths that are too long. Unzip the file by using the 'cd' Linux command to change directories into where the zip file is stored. Then use the command "unzip LUNA\_APP.zip" to unzip the file.

Step 7. Open a GitBash terminal and use the 'cd' or change directory command to step into your LUNA\_APP folder that will be created after unzipping LUNA\_APP.zip. This folder contains all the necessary files for the LUNA app to run. Then execute the "ionic serve" command once in the correct directory to open up the LUNA app and get it running. Note that while doing this you may recieve some notifications to update/upgrade some of your environment features. Say yes to all updates. The app will then open up correctly in a browser.

Note: There is a way to open apps like Luna directly from Visual Studios but so far I have been unable to do this as it involves copying over 50 folders into an Ionic Visual Studios Project in order to get all the dependencies correct. I am still working on a way to do this easily.

However, by using the "ionic serve" command the Ionic app opens up in a browser. You can then open up that app's specific files/pages in an editor like Visual Studios and make changes to them. After saving these files you will see the app update itself in real time without having to reload it each time a changhe is made!

Note that in order to open the app up in lab mode and see how it will look on different devices (iOS,

Android, and Windows) instead of executing the "ionic serve" command execute the "ionic serve -l" command.