**Building app with IBM Bluemix**

1. The tutorial is based on the link given below

<http://www.ibm.com/developerworks/library/ba-bluemix-diy-iot-wearable-app/>

1. You can easily follow the steps mentioned in the link, however there are some steps that might need some clarification. So this tutorial is just adds some intermediate steps to the tutorial in the link
2. You need – Wiced Sense DK , Apache cordova , a smartphone with Bluetooth, IBM Bluemix
3. You can download Apache cordova from this page <http://cordova.apache.org>
4. Try this documentation to get basic understanding of cordova. <http://cordova.apache.org/docs/en/4.0.0/guide_cli_index.md.html#The%20Command-Line%20Interface>
5. Download the hybrid application to your computer -http://www.ibm.com/developerworks/library/ba-bluemix-diy-iot-wearable-app/#download
6. Extract the compressed file into a folder of your choice (for example, WICED-Sense-IoT). All needed artifacts are provided, except for two files: [easy-ble.js](https://github.com/evothings/evothings-examples/blob/master/experiments/arduino-easyble/app/easy-ble.js) and [mqttws31.js](http://git.eclipse.org/c/paho/org.eclipse.paho.mqtt.javascript.git/tree/src/mqttws31.js); download them now from the links that are provided here. Place easy-ble.js and mqttws31.js in the lib folder of the application.
7. Register Wiced sense with ibm bluemix. To register a device with first you need to get the MAC address of the device. In order to get the MAC address of wiced sense, you can try connecting it to your phone and the MAC address will show up. Use hex MAC address as device id without the ‘:. For example if the MAC address is aa:bc:12:32:ef:12 , device id = aabc1232ef12
8. When you register the device, you will be given org, type(you can give any name you want for type- ex: WICED-Sense), id, auth-method and auth-token. Save these information for later use.
9. Next follow the steps “**Getting into IBM Bluemix”,“Setting up the WICED Sense Kit in the IOT foundation”, “Back to the hybrid app”, Building your cordova app”**as given in the link in step 1. They are self explanatory and easy to follow.
10. However **Buidling your cordova app** some steps needs some clarification. Depending on your device you can either use the command cordova platform add ios or cordova platform add android. However you can deploy an app on ios only if you have apple dev license. If not , I recommend that you use android.
11. To run android do ‘cordova platform add android’, ‘cordova build android’
12. In step 7 of  **Building your cordova app** you are asked to deploy the app. For android, you will need to enable developer options in your phone. Follow this link to do this. <http://developer.android.com/tools/device.html#device-developer-options>
13. After enabling developer options , enable usb debugging and enable Bluetooth HCI snoop log in the options
14. Connect your phone using a usb cable.
15. Now from the cmd window type cordova run android
16. Wait for few seconds and you can see that the app is now deployed on your phone.
17. Turn on wiced sense and the data will be shown on your phone window and you can now see it getting updated in the ibm bluemix devices tab