Tirumala Reddy Konireddy

Lab 04 report

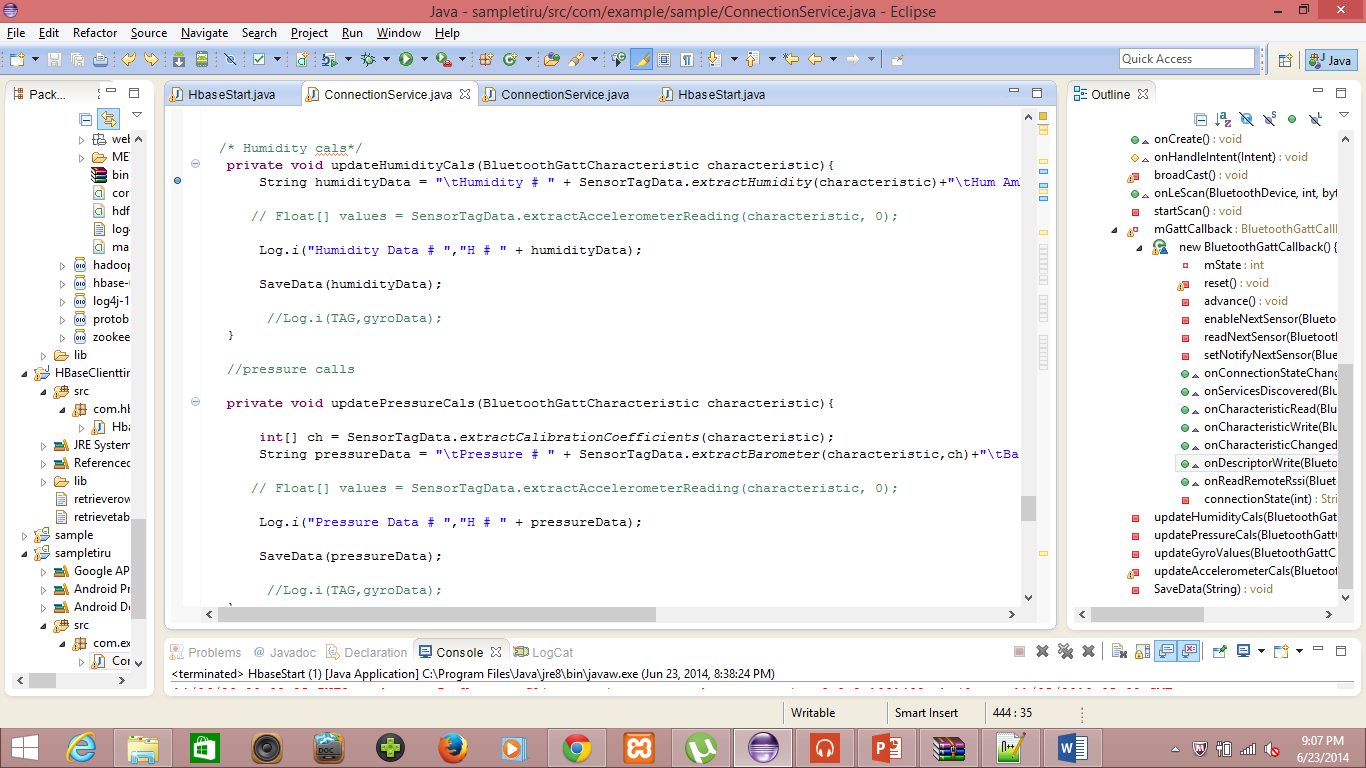
Training Testing Motion Capture data using web service

**Data Collection from BLE sensor Tag and Android Mobile device**

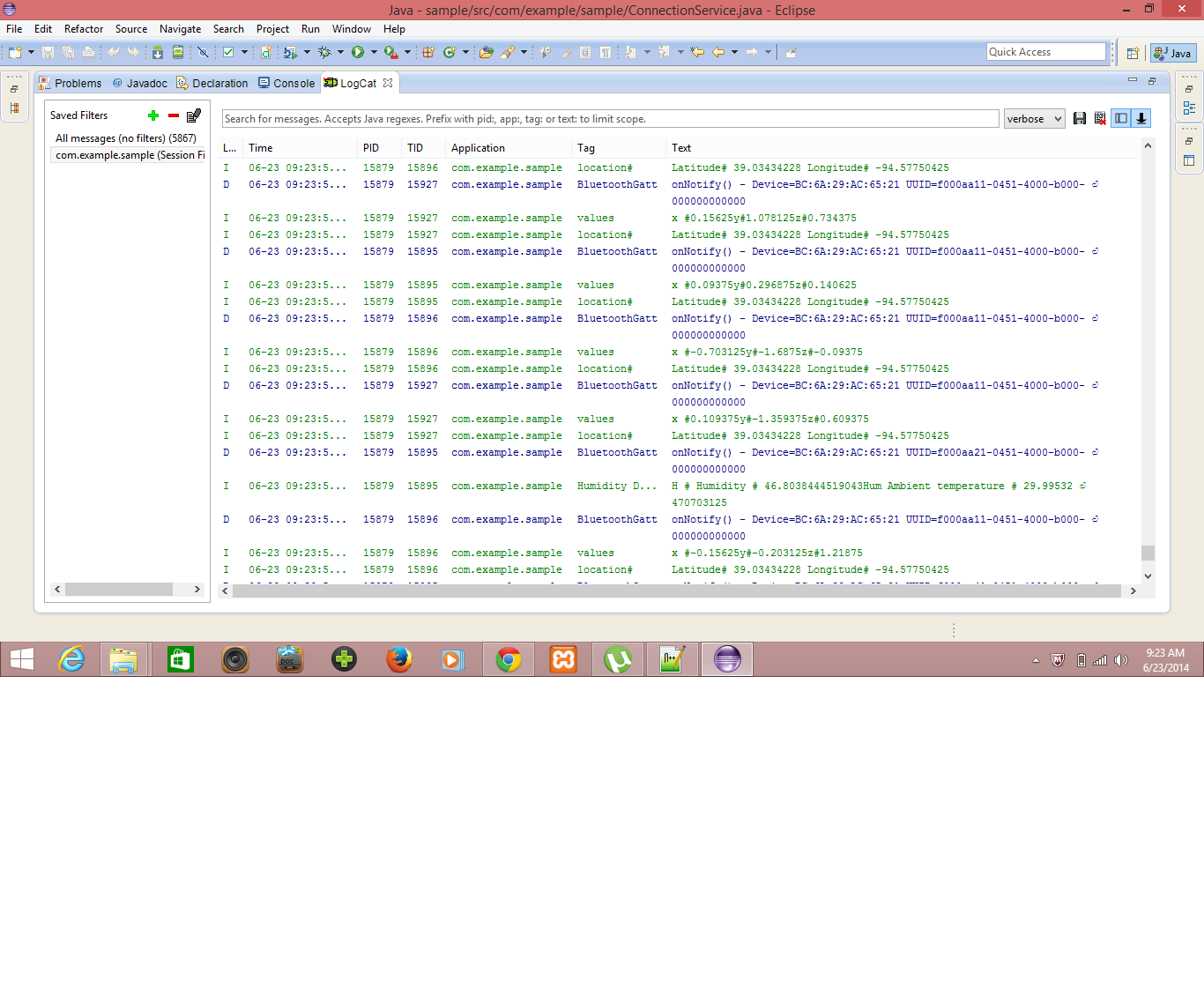
I had imported our tutorial program App1 –App3 GPS into our local Eclipse, which is able to write data about Accelerometer service from BLE sensor tag, present Date and GPS location of Android Mobile device. I had understood the code and methods related to enabling, reading and notifying different sensors of BLE sensor tag. I had developed that code to write Humidity, Temperature, Gyroscope and Pressure values of room using sensor tag services.

Please find my source files in my github :

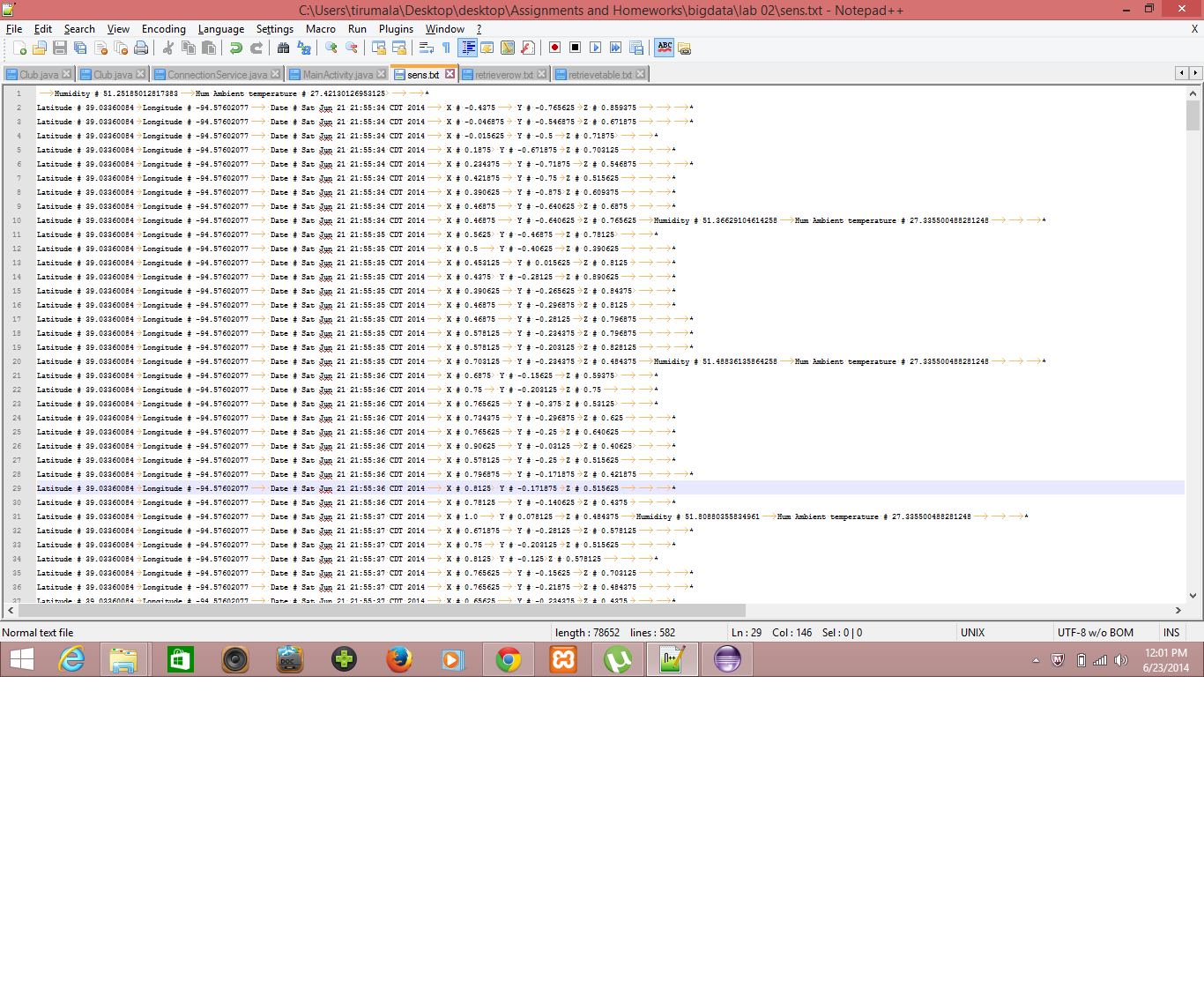
https://github.com/tkhgf/Big-data-labs/tree/master/lab%2003



I had found the accelerometer, GPS , Humidity sensor enabling while running application in Android device as below.

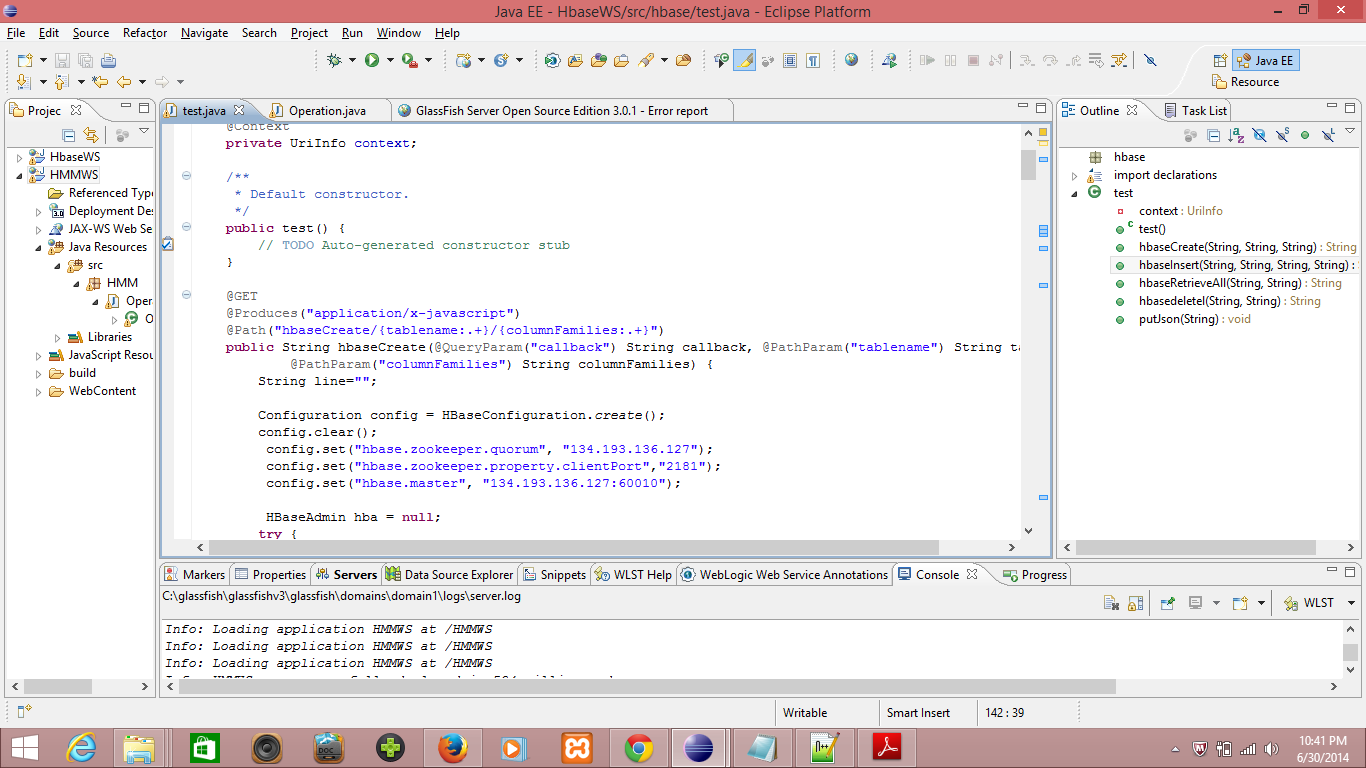


I had successfully written the Humidity and Temperature data along with the old data services as below.

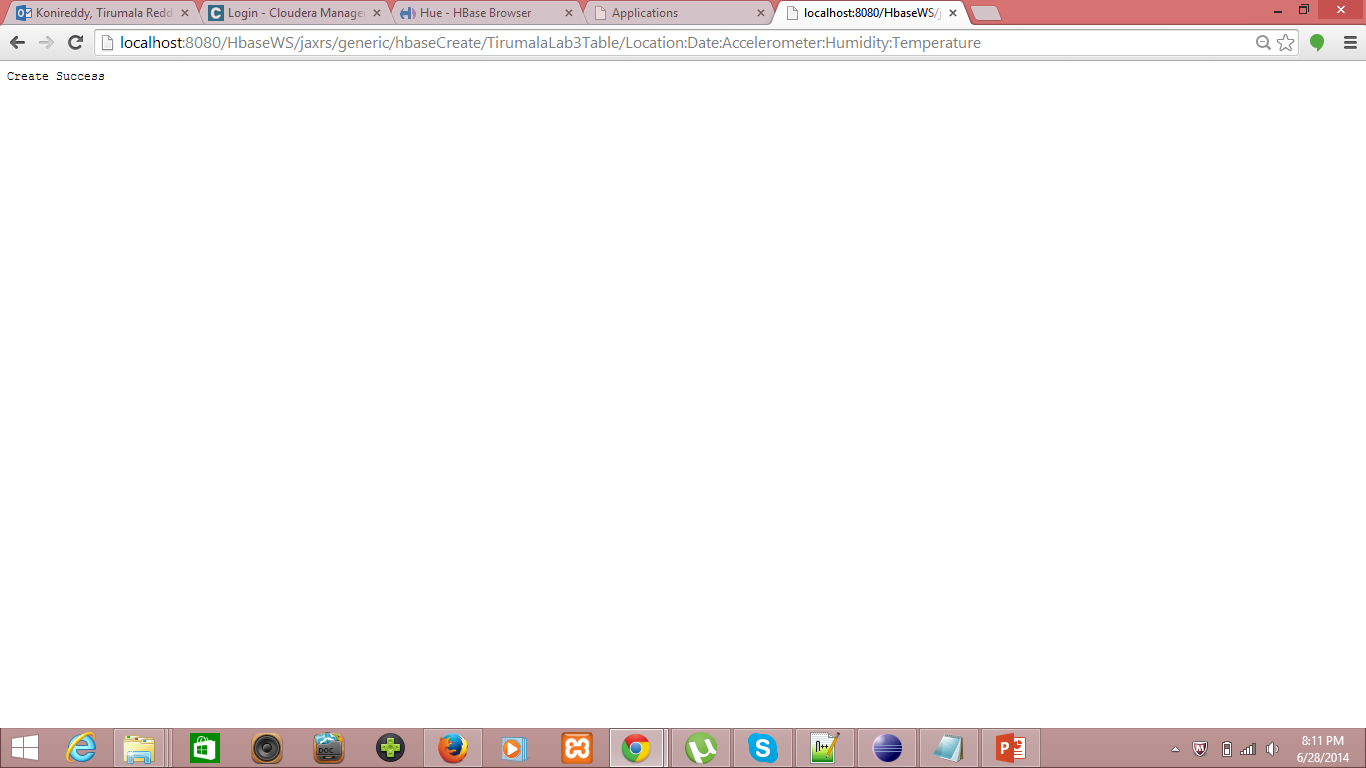


**Uploading Data to HBase using Web service**

I had developed a web service to upload all this data into HBASE server for using this data to train gestures as follows,

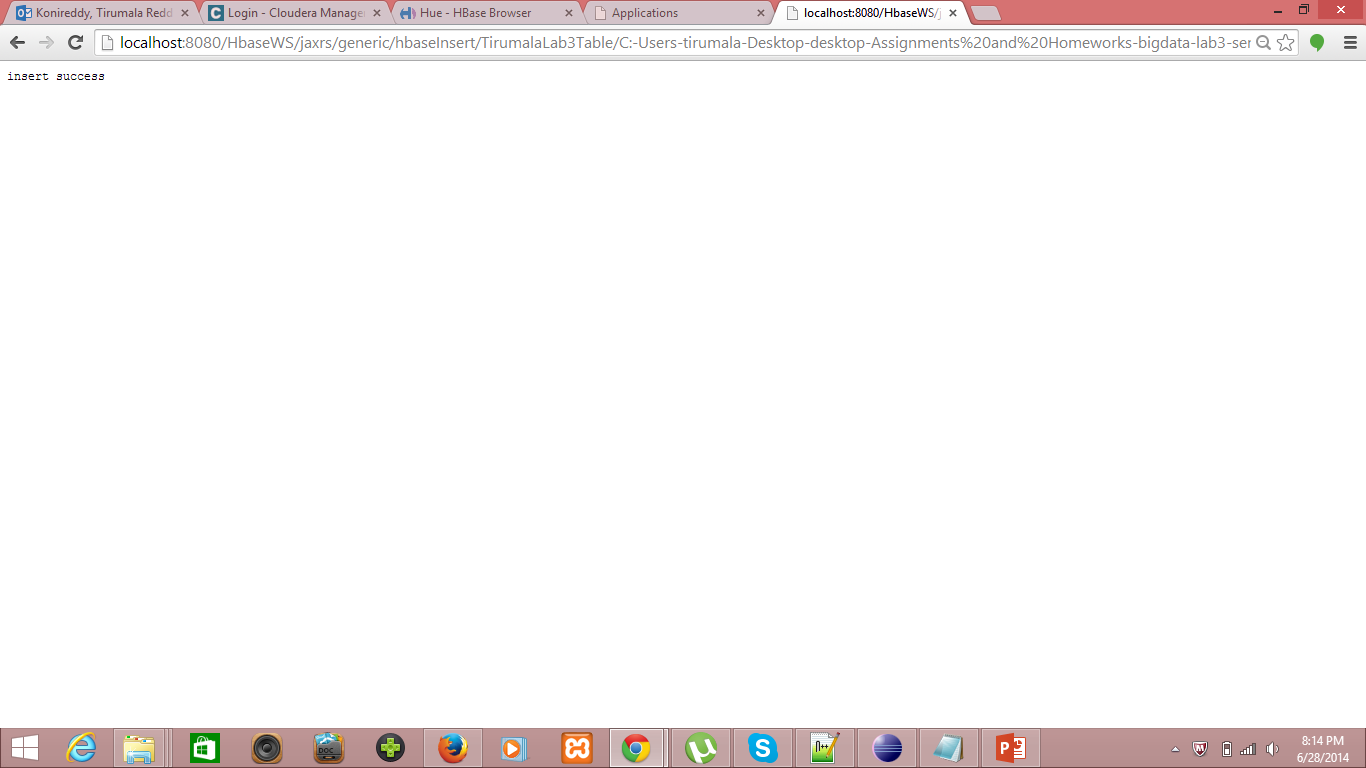


I had created a table in HBASE with my name TirumalaLab3Table,

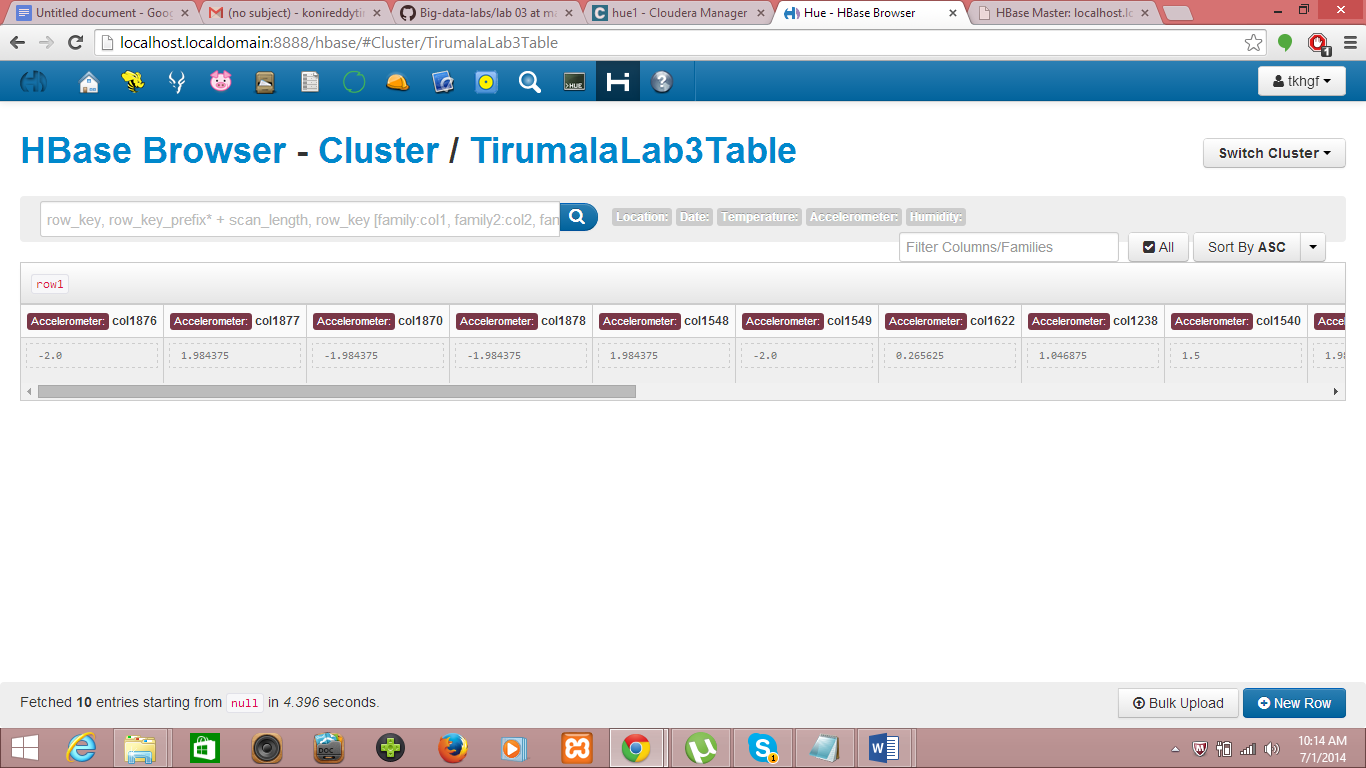




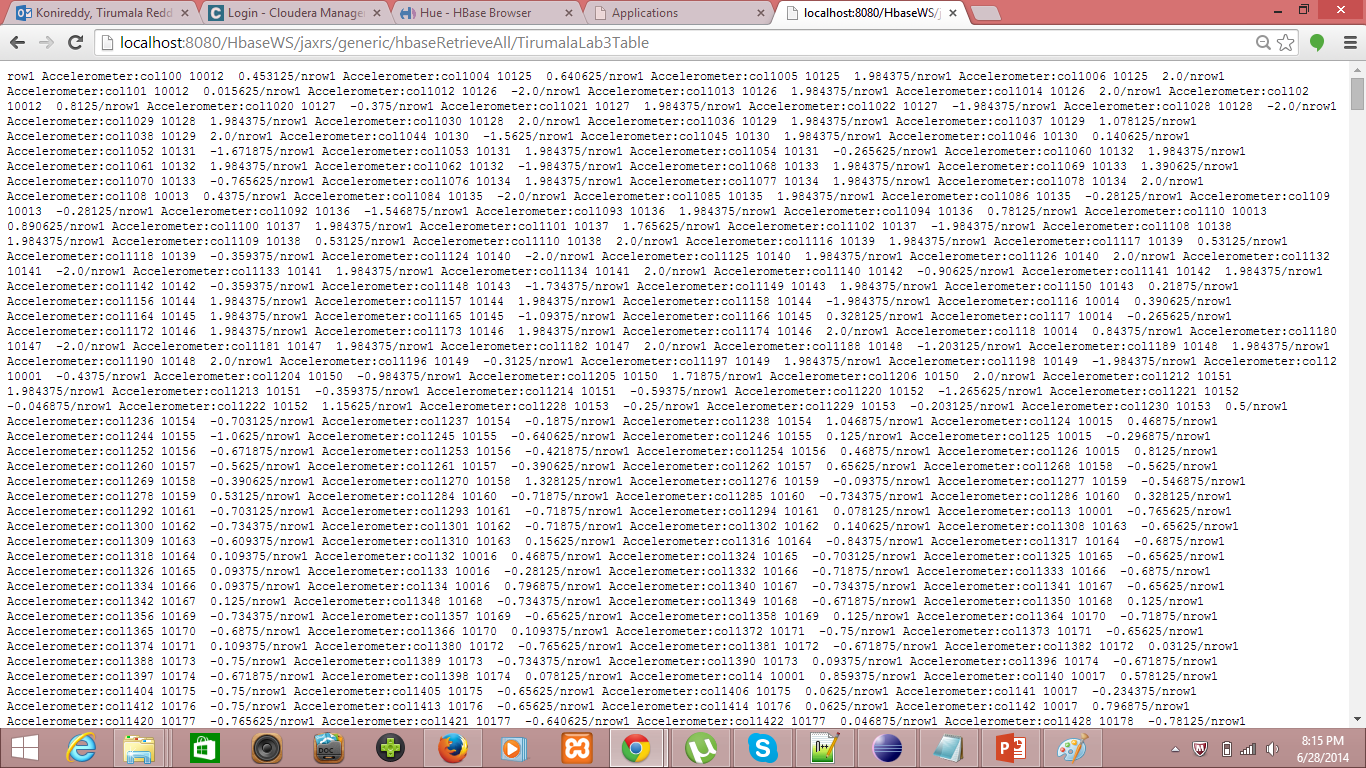
I had inserted the sensor data into the text file as follows, using webservice



The data uploaded to Hbase can be viewed Hbase browser as follows,



I had successfully accessed data stored in Hbase on retrieval,



**Training and Testing Motion Capture data:**

We had used the following webservice HMMWS webservice to convert the input Motion Capture text data values of X, Y, Z dimensional tab separated data file.

We need to first eliminate or remove the noise in motion capture data by caluculating the distance or root mean square value of the motion capture data as D = sqrt(x^2 + y^2 + z^2). Using this we had created a sequential file after removing the noise.

