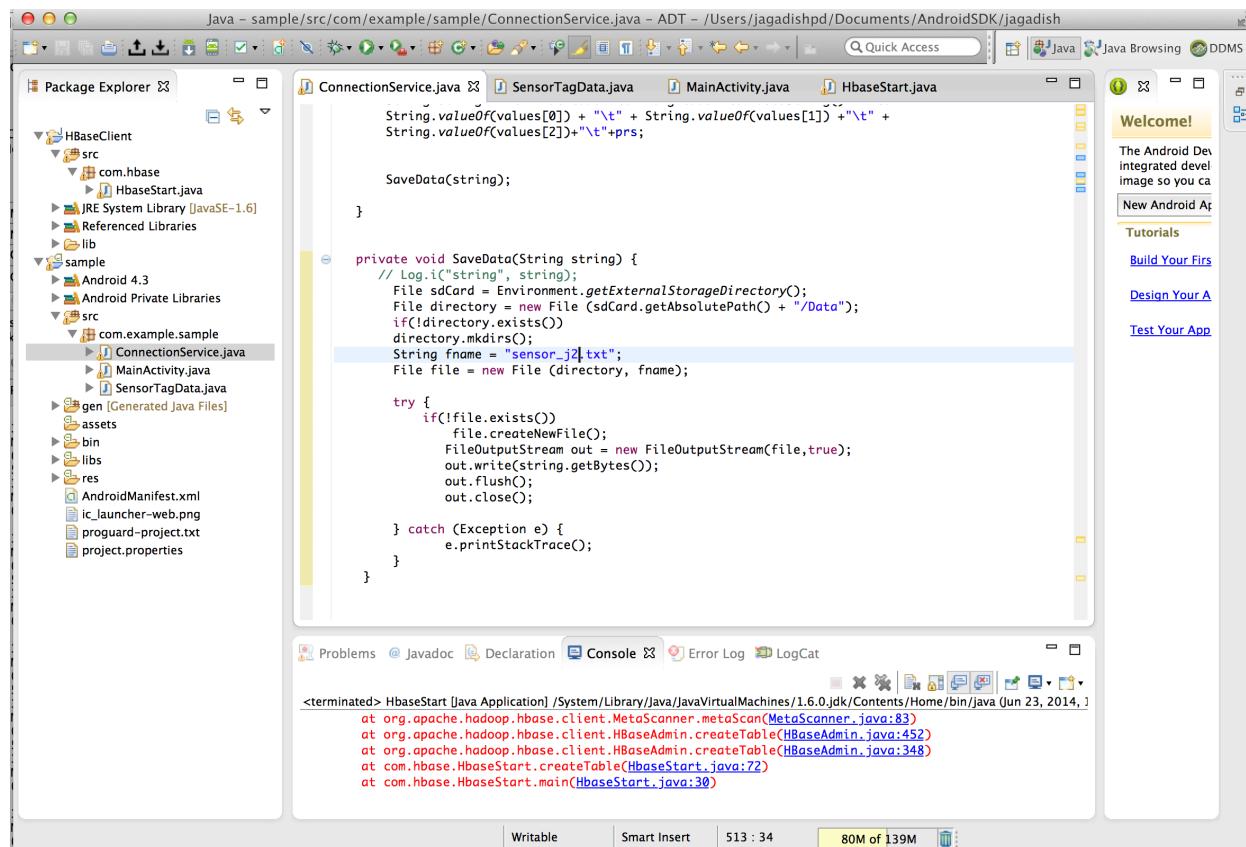


LAB 2

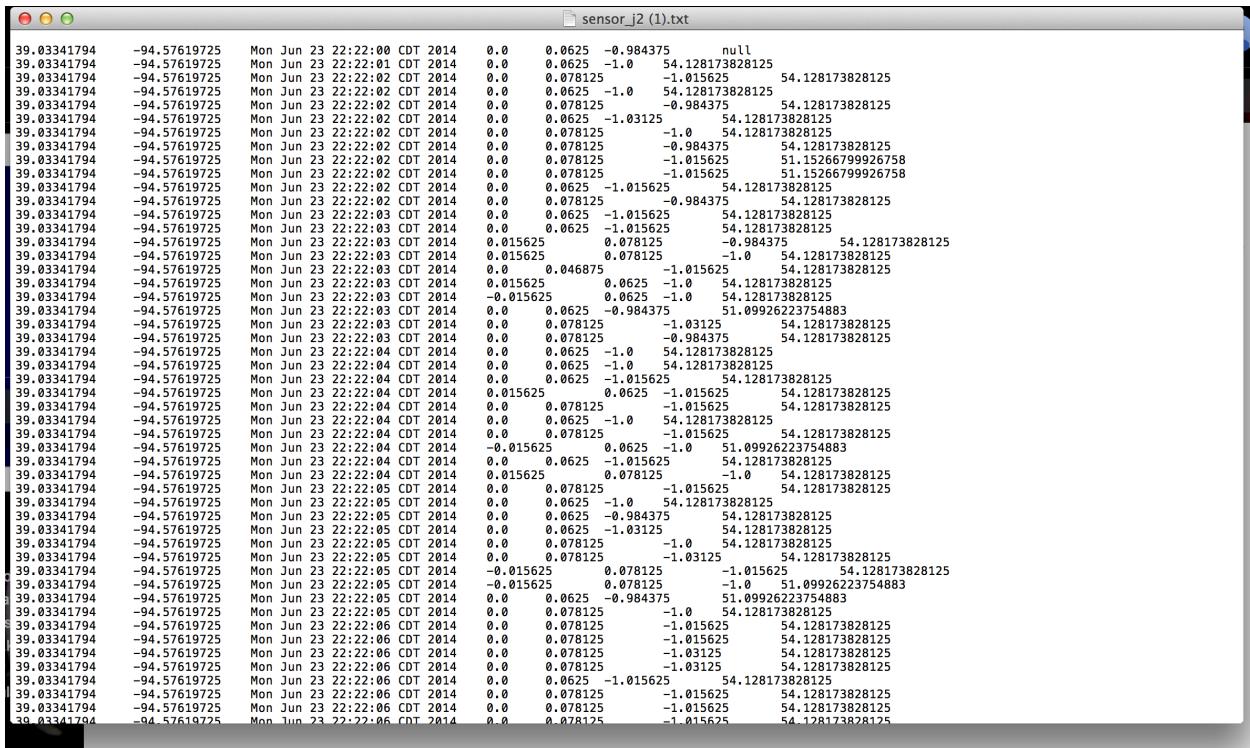
TASKS

1. Choose any devices (Android smartphone, SensorTag, Chronos Watch). Refer to the SensorTag UUID Info if you want to use SensorTag.
2. Implement an application to generate a file for your activities (including the following information) by modifying the existing applications (e.g., App1, App2, App3, App4, App5, FlyingMouse, SensorTag App, etc). The text file should include at least FOUR types of information on your activities (e.g., Time, GPS, Acceleration, Temperature, Humidity, Signal Frequency, Gyroscope, Pressure, etc) The text file should include at least FOUR types of information on your activities (e.g., Time, GPS, Acceleration, Temperature, Humidity, Signal Strength, Gyroscope, Pressure, etc)
3. Implement an HBase Client to insert your data to HBase (either Local Cloudera or UMKC VMwares)

Open Eclipse-> File->import->existing Android Projects
 Methods were added to the code to include the desired parameters.



The sensor tag was connected to the android device to generate the data file in text format.



After getting the text file, the data has to be pushed to the hBase database.

The host file in the local machine located at /etc/hosts was edited (add 134.193.136.127 localhost.localdomain localhost) to make sure Cloudera host name is resolvable.

The screenshot shows a Mac OS X terminal window titled "hosts — Locked". The content of the file is as follows:

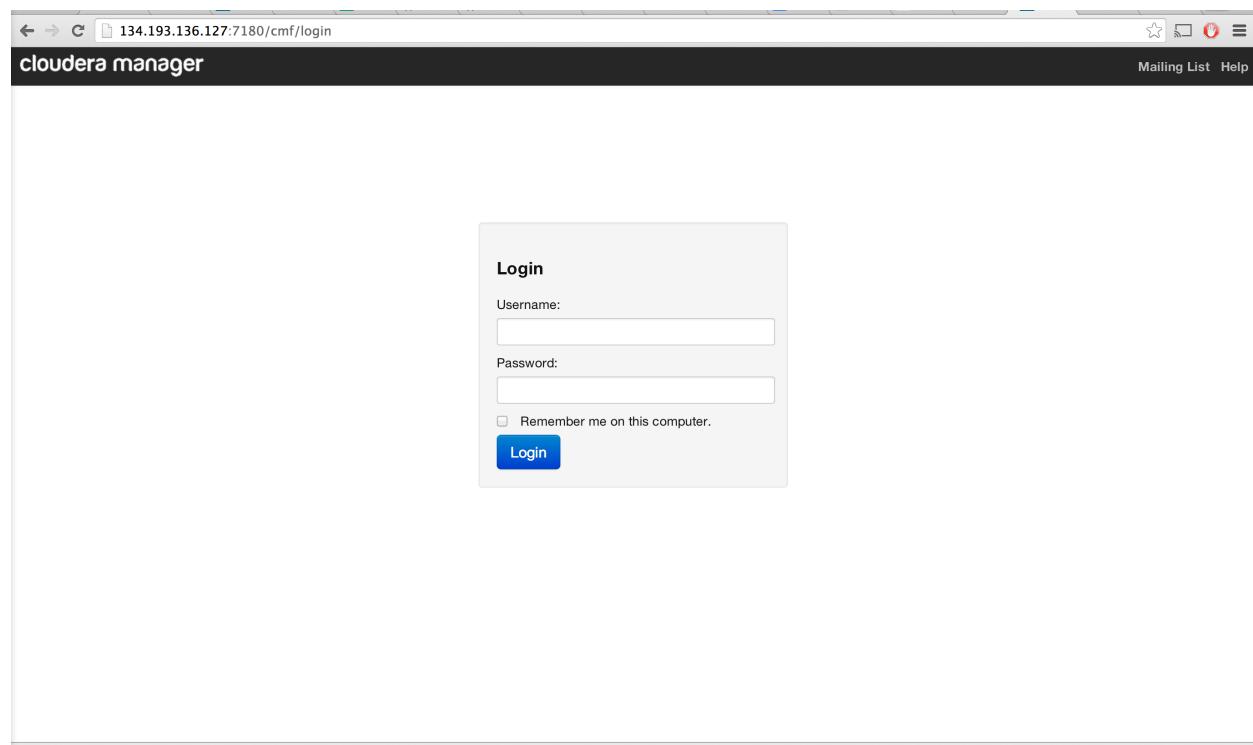
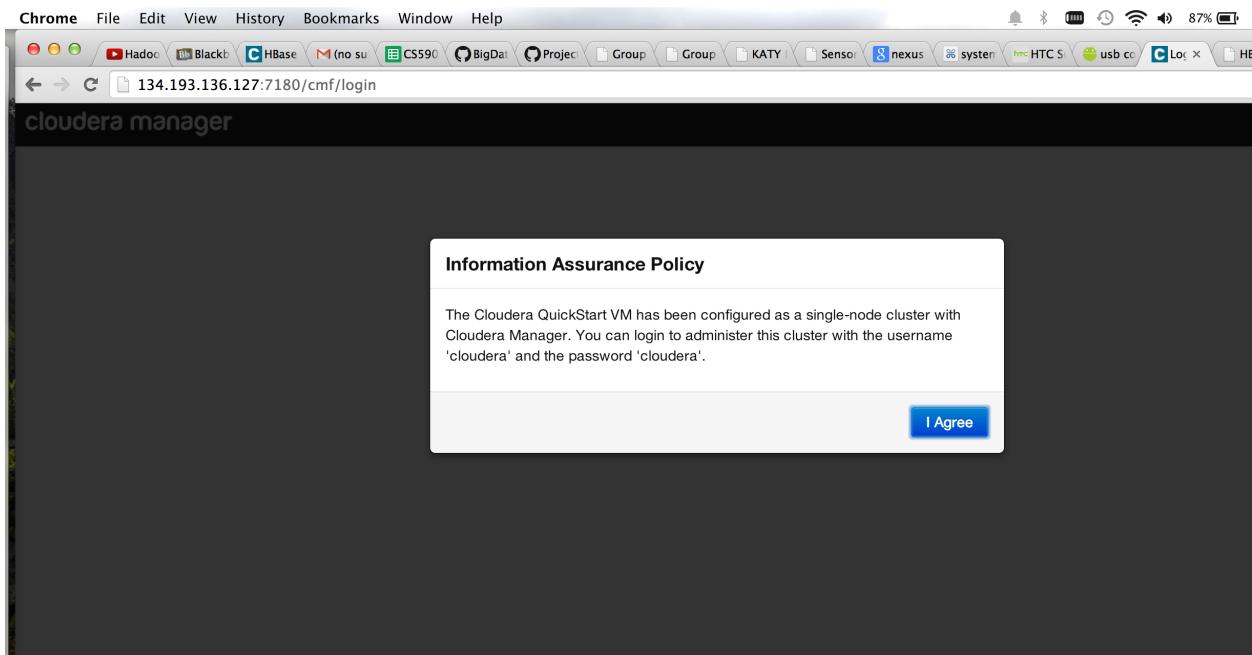
```
##  
# Host Database  
#  
# localhost is used to configure the loopback interface  
# when the system is booting. Do not change this entry.  
##  
127.0.0.1      localhost  
255.255.255.255 broadcasthost  
::1            localhost  
fe80::1%lo0    localhost  
134.193.136.127 localhost.localdomain localhost
```

At the bottom of the terminal window, there is a status bar with the text "admin.delete(table User)".

The screenshot shows a Mac OS X terminal window titled "jagadishpd — group5@localhost:~ — ssh — 80x24". The session log is as follows:

```
Last login: Mon Jun 23 22:44:21 on ttys000  
kc-phys-w8046182agv:~ jagadishpd$ ssh group5@134.193.136.127  
group5@134.193.136.127's password:  
Last login: Mon Jun 23 21:27:28 2014 from 10.205.0.39  
[group5@localhost ~]$
```

Connecting to hbase



Login using sso “jp378”
 pwd:jp378

The screenshot shows the Cloudera Manager Home page at the URL 134.193.136.127:7180/cmf/home. The top navigation bar includes links for Home, Services, Hosts, Activities, Diagnose, Audits, and Charts. A search bar and support links are also present.

Status: This section displays the status of various services under Cluster 1 - CDH4. Services listed include Hosts, flume1, hbase1, hdfs1, hive1, hue1, impala1, ks_indexer1, mapreduce1, oozie1, solr1, sqoop1, yarn1, and zookeeper1. Most services are shown in green, indicating healthy status.

Charts: This section contains three line charts: Cluster CPU, Cluster Disk IO, and Cluster Network IO. All three charts show a sharp spike labeled "QUERY ERROR" around 08:45 AM PDT on June 24, 2014. The Cluster CPU chart has a scale from 0 to 100, while Cluster Disk IO and Cluster Network IO have scales from 0.50 to 1.00.

The screenshot shows the Cloudera Manager Services page for the hbase1 service at the URL 134.193.136.127:7180/cmf/services/6/status. The top navigation bar is identical to the Home page.

Services: The timeline shows the period from 07:45 to 09:05 AM PDT on June 24, 2014. A blue diamond marker is positioned near 08:45 AM, corresponding to the error spikes seen in the previous screenshot.

H hbase1: This section provides a detailed status summary for the hbase1 service. It lists three components: Master, RegionServer, and HBase Thrift Server, all of which are reported to be in "Good Health".

Master: localhost.localdomain:60000

[Local logs](#), [Thread Dump](#), [Log Level](#), [Debug dump](#), [HBase Configuration](#)

Attributes

Attribute Name	Value	Description
HBase Version	0.94.6-cdh4.4.0, rUnknown	HBase version and revision
HBase Compiled	Tue Sep 3 20:09:51 PDT 2013, jenkins	When HBase version was compiled and by whom
Hadoop Version	2.0.0-cdh4.4.0, rc0eba6cd38c984557e96a16ccd7356b7de835e79	Hadoop version and revision
Hadoop Compiled	Tue Sep 3 19:33:17 PDT 2013, jenkins	When Hadoop version was compiled and by whom
HBase Root Directory	hdfs://localhost.localdomain:8020/hbase	Location of HBase home directory
HBase Cluster ID	580a6522-6c2b-42bd-8b27-eab8a5f5c575	Unique identifier generated for each HBase cluster
Load average	39.00	Average number of regions per regionserver. Naive computation.
Zookeeper Quorum	localhost.localdomain:2181	Addresses of all registered ZK servers. For more, see zk dump .
Coprocessors	[]	Coprocessors currently loaded by the master
HMaster Start Time	Tue Jun 24 08:45:47 PDT 2014	Date stamp of when this HMaster was started
HMaster Active Time	Tue Jun 24 08:45:47 PDT 2014	Date stamp of when this HMaster became active

Tasks

[Show All Monitored Tasks](#) [Show non-RPC Tasks](#) [Show All RPC Handler Tasks](#) [Show Active RPC Calls](#) [Show Client Operations](#) [View as JSON](#)

No tasks currently running on this node.

Tables

Catalog Table	Description
-ROOT	The -ROOT- table holds references to all .META. regions.
.META.	The .META. table holds references to all User Table regions

38 table(s) in set. [\[Details\]](#)

Java – sample/src/com/example/sample/ConnectionService.java – ADT – /Users/jagadishpd/Documents/AndroidSDK/jagadish

File → New →

- Open
- Open With
- Open Type Hierarchy
- Show In
- Copy
- Copy Qualified Name
- Paste
- Delete
- Build Path
- Source
- Refactor
- Import...
- Export...
- References
- Declarations
- Refresh
- Assign Working Sets...
- Profile As
- Debug As
- Run As
- Validate
- Team
- Compare With
- Replace With
- Restore from Local History...
- Translate Android Application
- Properties

String.valueOf(values[0]) + "\t" + String.valueOf(values[1]) + "\t" +
String.valueOf(values[2]) + "\t" + prs;

g string) {
g);
ent.getExternalStorageDirectory();
ile (sdCard.getAbsolutePath() + "/Data");

_j2.txt";
directory, fname);

FileO;
m out = new FileOutputStream(file,true);
g.getBytes());

{
ceO;

Console Error Log LogCat
System/Library/Java/JavaVirtualMachines/1.6.0.jdk/Contents/Home/bin/java (Jun 23, 2014, 1
.client.MetaScanner.metaScan(MetaScanner.java:83)
.client.HBaseAdmin.createTable(HBaseAdmin.java:452)
.client.HBaseAdmin.createTable(HBaseAdmin.java:348)
createTable(HbaseStart.java:72)
in(HbaseStart.java:30)

```

14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:java.library.path=.:/Library/Java/Extensions:/System/Library/Java/Extensions
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:java.io.tmpdir=/var/folders/f1/b4t8ghf9155g03f5tw_hb8qm000gn/T/
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:java.compiler=<NA>
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:os.name=Mac OS X
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:os.arch=x86_64
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:os.version=10.9.3
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:user.name=jagadishpd
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:user.home=/Users/jagadishpd
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Client environment:user.dir=/Users/jagadishpd/Desktop/HBaseClient 2
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Initiating client connection, connectString=134.193.136.127:2181 sessionTimeout=180000 watcher=
14/06/23 23:24:57 INFO zookeeper.ClientCnxn: Opening socket connection to server /134.193.136.127:2181
14/06/23 23:24:57 INFO zookeeper.RecoverableZooKeeper: The identifier of this process is 5643@android-b5f7ffff88bd7baf.kc.umkc.edu
14/06/23 23:24:57 INFO zookeeper.ClientCnxn: Socket connection established to localhost.localdomain/134.193.136.127:2181, initiating session
14/06/23 23:24:57 INFO zookeeper.ClientCnxn: Session establishment complete on server localhost.localdomain[134.193.136.127:2181], sessionid = 0x1469723
14/06/23 23:24:57 WARN hbase.HBaseConfiguration: instantiating HBaseConfiguration() is deprecated. Please use HBaseConfiguration#create()
connecting
14/06/23 23:24:57 INFO zookeeper.ZooKeeper: Initiating client connection, connectString=localhost:2181 sessionTimeout=180000 watcher=hconne
14/06/23 23:24:57 INFO zookeeper.ClientCnxn: Opening socket connection to server localhost/0:0:0:0:0:1:2181
14/06/23 23:24:57 INFO zookeeper.RecoverableZooKeeper: The identifier of this process is 5643@android-b5f7ffff88bd7baf.kc.umkc.edu
14/06/23 23:24:57 WARN zookeeper.ClientCnxn: Session 0x0 for server null, unexpected error, closing socket connection and attempting recon
java.net.ConnectException: Connection refused
    at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
    at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:599)
    at org.apache.zookeeper.ClientCnxn$SendThread.run(ClientCnxn.java:1119)
14/06/23 23:24:57 WARN zookeeper.RecoverableZooKeeper: Possibly transient ZooKeeper exception: org.apache.zookeeper.KeeperException$Connect
14/06/23 23:24:57 INFO util.RetryCounter: Sleeping 2000ms before retry #1...
14/06/23 23:24:58 INFO zookeeper.ClientCnxn: Opening socket connection to server localhost/127.0.0.1:2181
14/06/23 23:24:58 WARN zookeeper.ClientCnxn: Session 0x0 for server null, unexpected error, closing socket connection and attempting recon
java.net.ConnectException: Connection refused
    at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
    at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:599)
    at org.apache.zookeeper.ClientCnxn$SendThread.run(ClientCnxn.java:1119)
14/06/23 23:24:59 INFO zookeeper.ClientCnxn: Opening socket connection to server localhost/fe80:0:0:0:0:0:1%1:2181
14/06/23 23:24:59 WARN zookeeper.ClientCnxn: Session 0x0 for server null, unexpected error, closing socket connection and attempting recon
java.net.ConnectException: Connection refused
    at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
    at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:599)
    at org.apache.zookeeper.ClientCnxn$SendThread.run(ClientCnxn.java:1119)
14/06/23 23:24:59 INFO zookeeper.ClientCnxn: Opening socket connection to server localhost/134.193.136.127:2181
14/06/23 23:24:59 INFO zookeeper.ClientCnxn: Socket connection established to localhost/134.193.136.127:2181, initiating session
14/06/23 23:24:59 INFO zookeeper.ClientCnxn: Session establishment complete on server localhost/134.193.136.127:2181, sessionid = 0x1469723
Creating Table

```

Mon Jun 23 21:18:07 PDT 2014 Doing distributed log split in [hdfs://localhost.localdomain:8020/hbase/.logs/localhost.localdomain,60020,1402873163576-splitting] RUNNING (since 9mins, 20sec ago) Waiting for distributed tasks to finish. scheduled=29 done=0 error=0 (since 0sec ago)

Tables

Catalog Table	Description
-ROOT-	The -ROOT- table holds references to all META. regions.
META.	The META. table holds references to all User Table regions

34 table(s) in set. [\[Details\]](#)

User Table	Online Regions	Description
Data_J	1	{NAME => 'Data_J', FAMILIES => [{NAME => 'Date'}, {NAME => 'latitude'}, {NAME => 'longitude'}, {NAME => 'x'}, {NAME => 'y'}, {NAME => 'z'}]}
Data_JP	1	{NAME => 'Data_JP', FAMILIES => [{NAME => 'Date'}, {NAME => 'humidity'}, {NAME => 'latitude'}, {NAME => 'longitude'}, {NAME => 'x'}, {NAME => 'y'}, {NAME => 'z'}]}
Data_JP1	0	{NAME => 'Data_JP1', FAMILIES => [{NAME => 'Date'}, {NAME => 'humidity'}, {NAME => 'latitude'}, {NAME => 'longitude'}, {NAME => 'x'}, {NAME => 'y'}, {NAME => 'z'}]}
Group1SensorTable	1	{NAME => 'Group1SensorTable', FAMILIES => [{NAME => 'Date'}, {NAME => 'Dimensions'}, {NAME => 'Humidity'}, {NAME => 'Location'}, {NAME => 'Temperature'}]}
Group1Table	1	{NAME => 'Group1Table', FAMILIES => [{NAME => 'Date'}, {NAME => 'Dimensions'}, {NAME => 'Humidity'}, {NAME => 'Location'}, {NAME => 'Temperature'}]}