

Lab 2

Data Collection

The existing source code is tweaked to collect the data, off the sensor tag which includes Pressure and Humidity along with the GPS and Accelerometer values.

File Edit Format View Help									
15, 921112060546875	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:21 CDT 2014	0.59375	-0.375	-0.5937555, 921112060546875	28, 343659667968744	39, 03341794
16, 57619725	Mon Jun 23 23:26:21 CDT 2014	0.5625	0.3125	-1.312555, 921112060546875	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	-0.78125
17, 83973755, 921112060546875	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.953125	-1.3125	1.4687555, 921112060546875	28, 343659667968744	39, 03341794
18, 343659667968744	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	-0.25	-1.25	0.0468755, 921112060546875	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
19, 03341794	0.015625	-1.062555, 921112060546875	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.984375	0.75	-0.437555, 448081970214844
20, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.25	0.25	1.7656255, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
21, 13:26:22 CDT 2014	-1.890625	-0.953125	1.2812555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	-0.765625	-1.078125
22, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.609375	-0.234375	1.2187555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
23, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.0468755, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.548755	1.39062555, 448081970214844
24, 1.984375	0.234375	-0.07812555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.5625	0.435125	1.953125
25, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	-1.40625	-0.548755	1.39062555, 448081970214844	28, 343659667968744	39, 03341794
26, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.315625	0.75	1.14062555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
27, 0.5	-0.015625	-0.7187555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.265625	0.390625	-0.6562555, 448081970214844
28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.984375	0.25	0.57812555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
29, 13:26:22 CDT 2014	-1.015625	-0.435125	0.8437555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	-0.96875	-0.409375
30, 43512554, 318912506103516	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.265625	-0.4375	-0.70312555, 448081970214844	28, 343659667968744	39, 03341794
31, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.171875	-0.453125	-0.54687555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
32, 1.4375	0.046875	0.032554, 318912506103516	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.28125	-0.03125	0.98437555, 448081970214844
33, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.671875	-0.015625	1.01562555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
34, 0.5	0.5625	0.032554, 318912506103516	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.315625	0.03125	-0.578125
35, 49492645263672	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.71875	0.25	-0.57812555, 448081970214844	28, 343659667968744	39, 03341794
36, 1.984375	0.25	-0.125355, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.21875	-0.28125	0.937555, 448081970214844
37, 7.34375	0.7553, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.21875	-0.28125	0.937555, 448081970214844	28, 343659667968744
38, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	-0.4375	-0.78125	-0.187553, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
39, 7.1875	0.21875	-0.76562555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.609375	0.53125	-0.562555, 448081970214844
40, 28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.984375	0.265625	-0.04687555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
41, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.078125	-0.187553, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
42, 0.03125	-0.2187555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	0.125	1.14062555, 448081970214844	28, 343659667968744
43, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	-0.765625	-0.4375	0.0937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
44, 0.671875	-0.515625	-1.10937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.34375	-0.03125	-0.32812555, 448081970214844
45, 18, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.90625	-0.28125	-0.37555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
46, 13:26:22 CDT 2014	0.90625	-0.28125	-0.4687555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.984375	-0.21875
47, 0.7812555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.015625	-0.34375	-0.0937555, 448081970214844	28, 343659667968744	39, 03341794
48, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.09375	-0.4375	-0.07812555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
49, 7.03125	-0.46875	-1.562555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.0	-0.6875	-0.29687555, 448081970214844
50, 13:26:22 CDT 2014	0.90625	-0.328125	-0.23437555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	1.03125	-0.5
51, 18, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.9375	-0.71875	-0.10937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
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53, 1.4062555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	-0.75	-0.23437555, 448081970214844	28, 343659667968744	39, 03341794
54, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.65625	-0.625	0.12553, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.96875
55, 3.5937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.15625	-0.28125	0.48437555, 448081970214844	28, 343659667968744	39, 03341794
56, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.82125	-0.59375	-0.0312555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
57, 1.078125	-0.5	-0.35937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.5	-0.3125	-0.23437555, 448081970214844
58, 18, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.5	-0.3125	-0.60937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
59, 13:26:22 CDT 2014	0.625	-0.296875	-0.76562555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.734375	-0.328125
60, 6.562555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.65625	-0.3125	-0.687555, 448081970214844	28, 343659667968744	39, 03341794
61, 0.578125	-0.01562555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	-0.75	-0.23437555, 448081970214844	28, 343659667968744
62, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	-0.4375	-0.2553, 37285232543945	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
63, 1.578125	-0.01562555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	-0.75	-0.23437555, 448081970214844	28, 343659667968744
64, 18, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	-0.75	-0.23437555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725
65, 13:26:22 CDT 2014	0.800625	-0.59375	-0.0312555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.8125	-0.484375
66, 2.187555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	-0.75	-0.23437555, 448081970214844	28, 343659667968744	39, 03341794
67, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.8125	-0.5	0.0937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014
68, 7.96875	-0.515625	-1.0937555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.82125	-0.53125	0.09375
69, 13:26:22 CDT 2014	0.765625	-0.4375	-0.687555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.8125	-0.484375
70, 3.761959075927734	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.84375	-0.515625	0.187553, 761959075927734	28, 343659667968744	39, 03341794
71, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.765625	-0.4375	-0.2553, 37285232543945	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.765625
72, 7.65625	-0.578125	-0.54687555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.75	-0.75	-0.23437555, 448081970214844
73, 13:26:22 CDT 2014	0.765625	-0.4375	-0.687555, 448081970214844	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.8125	-0.484375
74, 0.761959075927734	28, 343659667968744	39, 03341794	-94, 57619725	Mon Jun 23 23:26:22 CDT 2014	0.84375	-0.515625	0.187553, 761959075927734	28, 343659667968744	

```
main.java HbaseStart.java
HBaseAdmin admin = new HBaseAdmin(config);

try {
    // HBaseConfiguration hc = new HBaseConfiguration(new Configuration());

    HTableDescriptor ht = new HTableDescriptor("SensorTagTable");

    ht.addFamily( new HColumnDescriptor("Humidity"));

    ht.addFamily( new HColumnDescriptor("HumidityTemp"));

    ht.addFamily( new HColumnDescriptor("latitude"));

    ht.addFamily( new HColumnDescriptor("longitude"));

    ht.addFamily( new HColumnDescriptor("Date"));

    ht.addFamily( new HColumnDescriptor("x"));

    ht.addFamily( new HColumnDescriptor("y"));

    ht.addFamily( new HColumnDescriptor("z"));

    System.out.println( "connecting" );

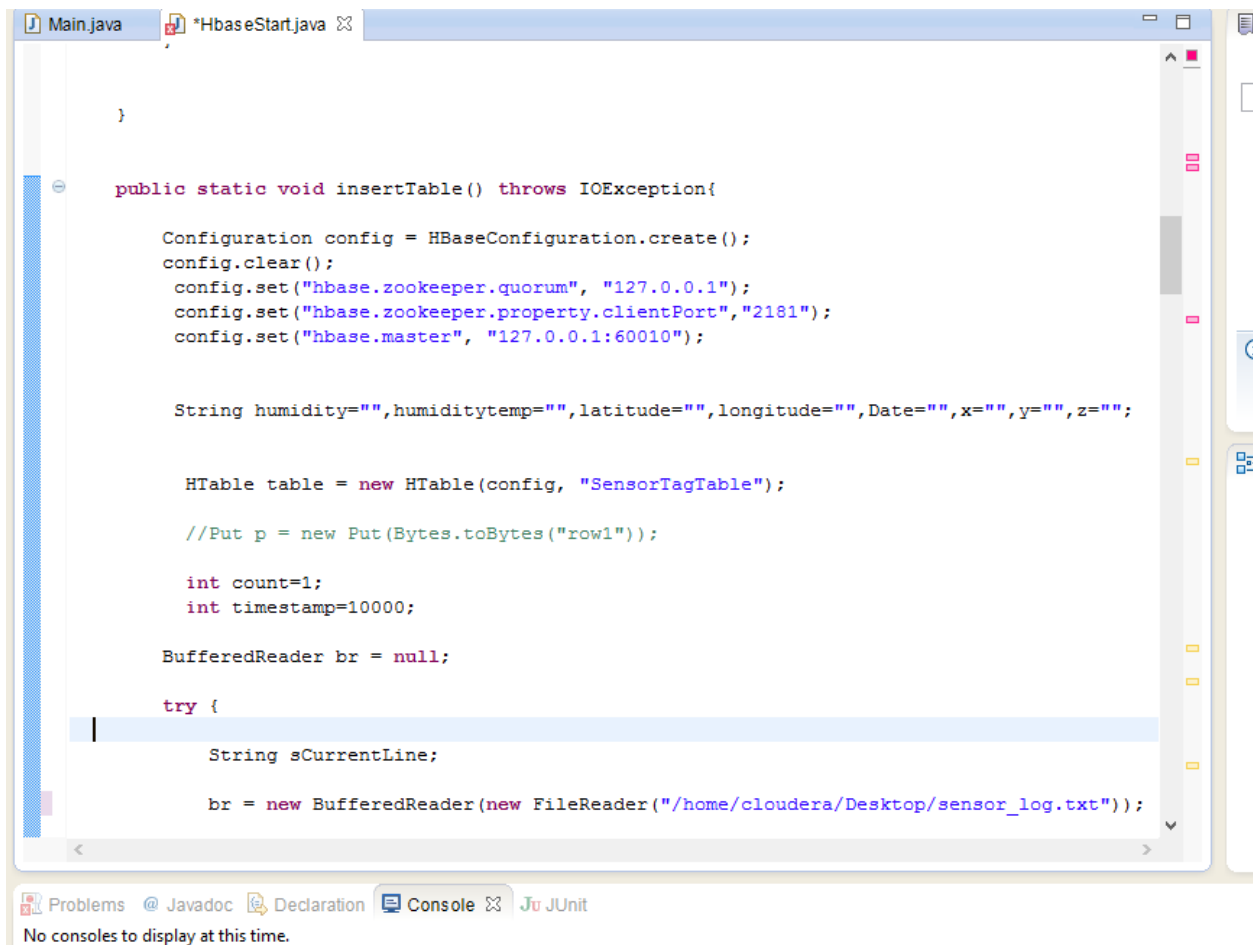
    HBaseAdmin hba = new HBaseAdmin( config );

    System.out.println( "Creating Table" );

    hba.createTable( ht );

    System.out.println("Done.....");
}
```

Inserting Data



```

}

public static void insertTable() throws IOException{

    Configuration config = HBaseConfiguration.create();
    config.clear();
    config.set("hbase.zookeeper.quorum", "127.0.0.1");
    config.set("hbase.zookeeper.property.clientPort", "2181");
    config.set("hbase.master", "127.0.0.1:60010");

    String humidity="",humiditytemp="",latitude="",longitude="",Date="",x="",y="",z="";

    HTable table = new HTable(config, "SensorTagTable");

    //Put p = new Put(Bytes.toBytes("row1"));

    int count=1;
    int timestamp=10000;

    BufferedReader br = null;

    try {

        String sCurrentLine;

        br = new BufferedReader(new FileReader("/home/cloudera/Desktop/sensor_log.txt"));
    }
}

```

Problems Javadoc Declaration Console JUnit

No consoles to display at this time.

Retrieving Data



```
public static void retrieveTable() throws IOException{

    Configuration config = HBaseConfiguration.create();
    config.clear();
    config.set("hbase.zookeeper.quorum", "127.0.0.1");
    config.set("hbase.zookeeper.property.clientPort", "2181");
    config.set("hbase.master", "127.0.0.1:60010");

    HTable table = new HTable(config, "SensorTagTable3");

    Get g = new Get(Bytes.toBytes("row1"));

    Result r = table.get(g);

    byte [] value = r.getValue(Bytes.toBytes("Humidity"),Bytes.toBytes("col1"));

    byte [] value1 = r.getValue(Bytes.toBytes("HumidityTemp"),Bytes.toBytes("col2"));

    byte [] value2 = r.getValue(Bytes.toBytes("latitude"),Bytes.toBytes("col3"));

    byte [] value3 = r.getValue(Bytes.toBytes("longitude"),Bytes.toBytes("col4"));

    byte [] value4 = r.getValue(Bytes.toBytes("Date"),Bytes.toBytes("col5"));

    byte [] value5 = r.getValue(Bytes.toBytes("x"),Bytes.toBytes("col6"));

    byte [] value6 = r.getValue(Bytes.toBytes("y"),Bytes.toBytes("col7"));

    byte [] value7 = r.getValue(Bytes.toBytes("z"),Bytes.toBytes("col8"));
```