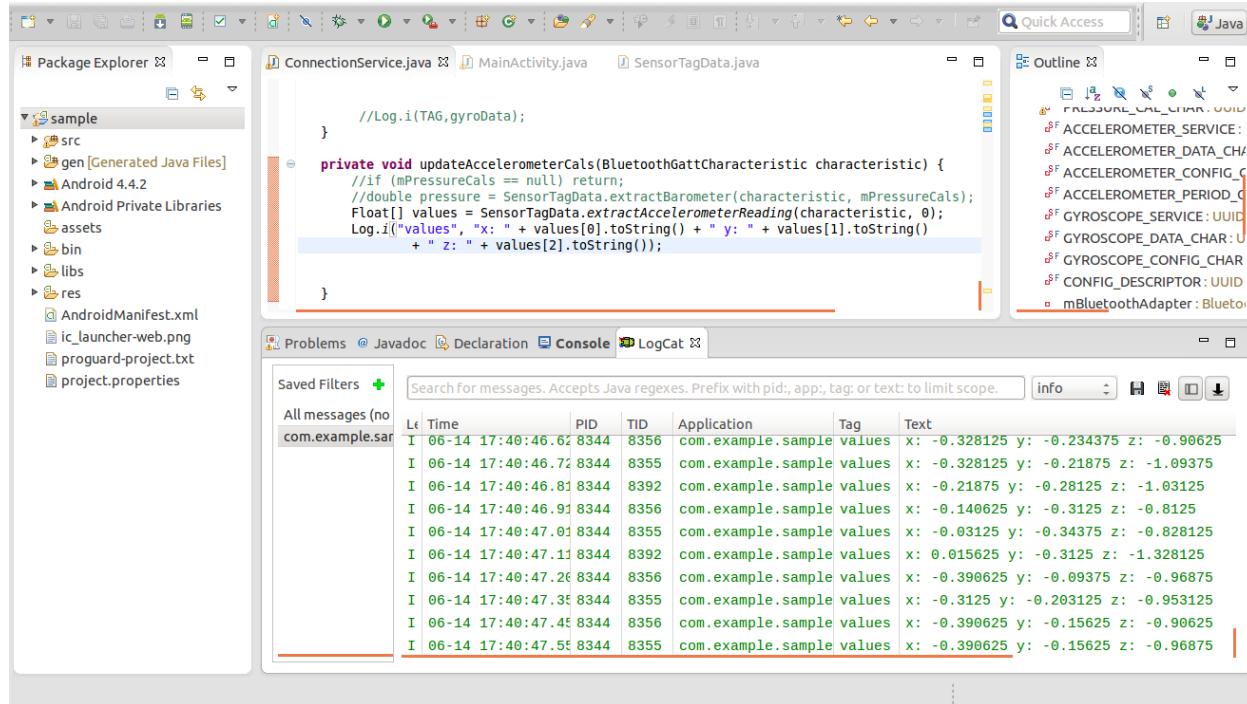


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CS 590BD
June 14, 2014

Lab 1

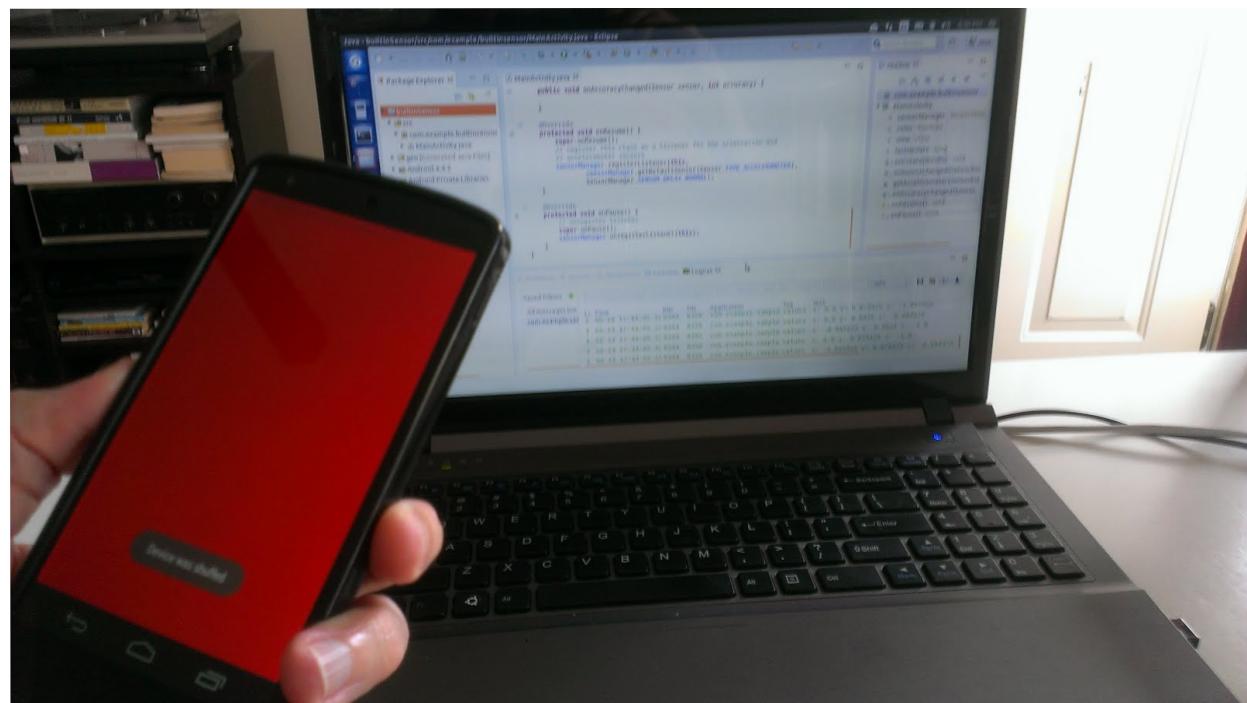
Task 1: Subtask 1:



The screenshot shows the Eclipse IDE interface. On the left is the Package Explorer with a project named 'sample' containing files like AndroidManifest.xml, ic_launcher-web.png, and proguard-project.txt. The main editor window displays Java code for `ConnectionService.java`, specifically the `updateAccelerometerCals` method. The LogCat window on the right shows a series of log entries from the application's perspective, with each entry containing timestamp, PID, TID, Application, Tag, and Text. The text in the log entries includes sensor values for Accelerometer and Gyroscope.

| Time | PID | TID | Application | Tag | Text |
|---------------------|------|------|--------------------|--------|---------------------------------------|
| I 06-14 17:40:46.62 | 8344 | 8356 | com.example.sample | values | x: -0.328125 y: -0.234375 z: -0.90625 |
| I 06-14 17:40:46.72 | 8344 | 8355 | com.example.sample | values | x: -0.328125 y: -0.21875 z: -1.09375 |
| I 06-14 17:40:46.81 | 8344 | 8392 | com.example.sample | values | x: -0.21875 y: -0.28125 z: -1.03125 |
| I 06-14 17:40:46.91 | 8344 | 8356 | com.example.sample | values | x: -0.140625 y: -0.3125 z: -0.8125 |
| I 06-14 17:40:47.01 | 8344 | 8355 | com.example.sample | values | x: -0.03125 y: -0.34375 z: -0.828125 |
| I 06-14 17:40:47.11 | 8344 | 8392 | com.example.sample | values | x: 0.015625 y: -0.3125 z: -1.328125 |
| I 06-14 17:40:47.26 | 8344 | 8356 | com.example.sample | values | x: -0.390625 y: -0.09375 z: -0.96875 |
| I 06-14 17:40:47.35 | 8344 | 8355 | com.example.sample | values | x: -0.3125 y: -0.203125 z: -0.953125 |
| I 06-14 17:40:47.45 | 8344 | 8356 | com.example.sample | values | x: -0.390625 y: -0.15625 z: -0.90625 |
| I 06-14 17:40:47.55 | 8344 | 8355 | com.example.sample | values | x: -0.390625 y: -0.15625 z: -0.96875 |

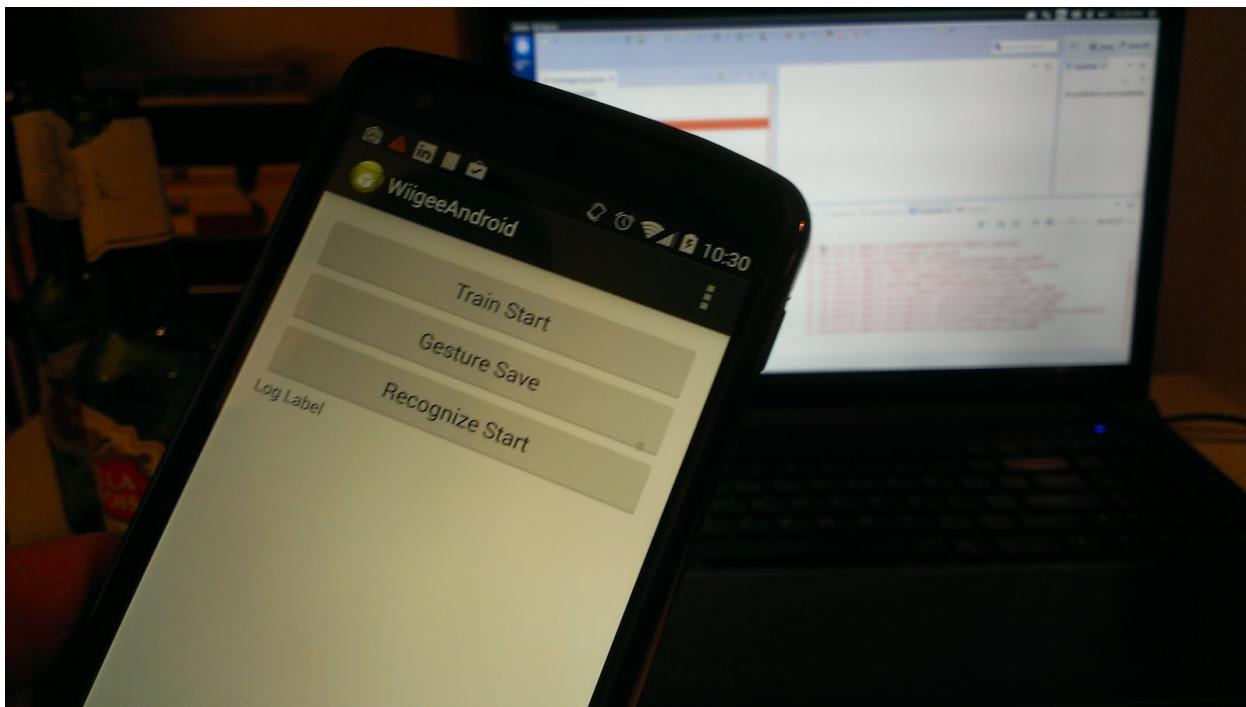
Subtask 2:

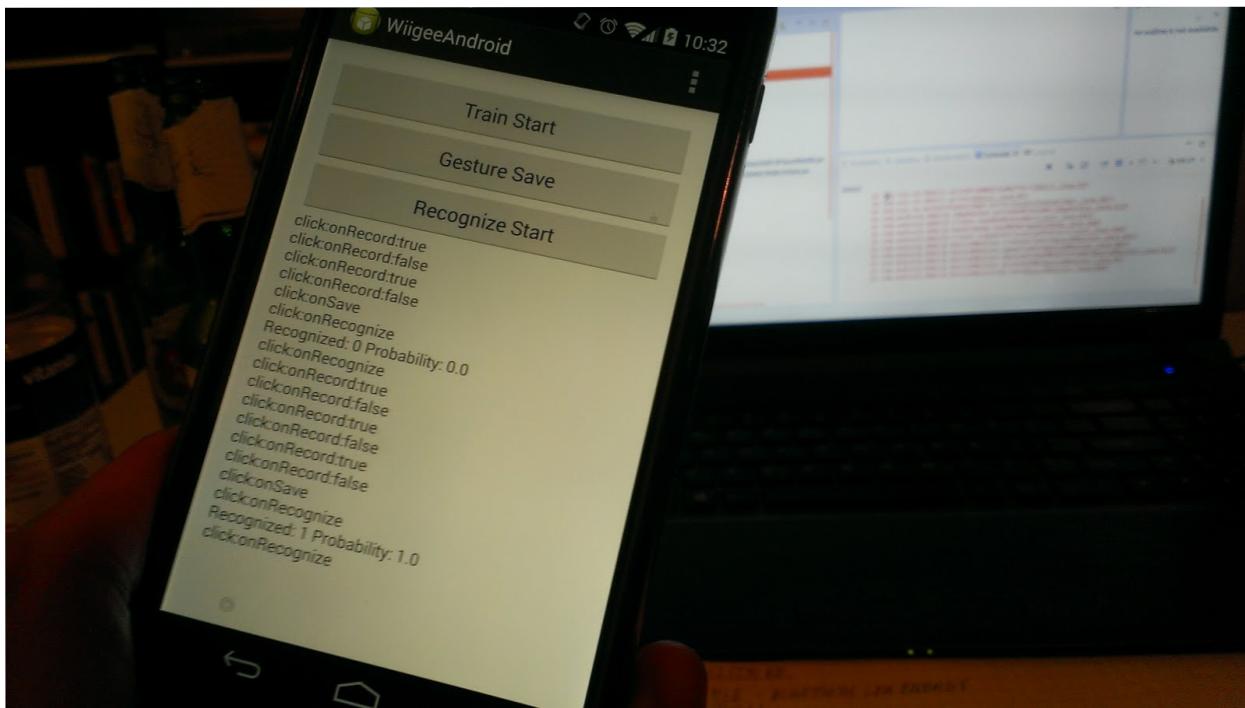


Subtask 3:

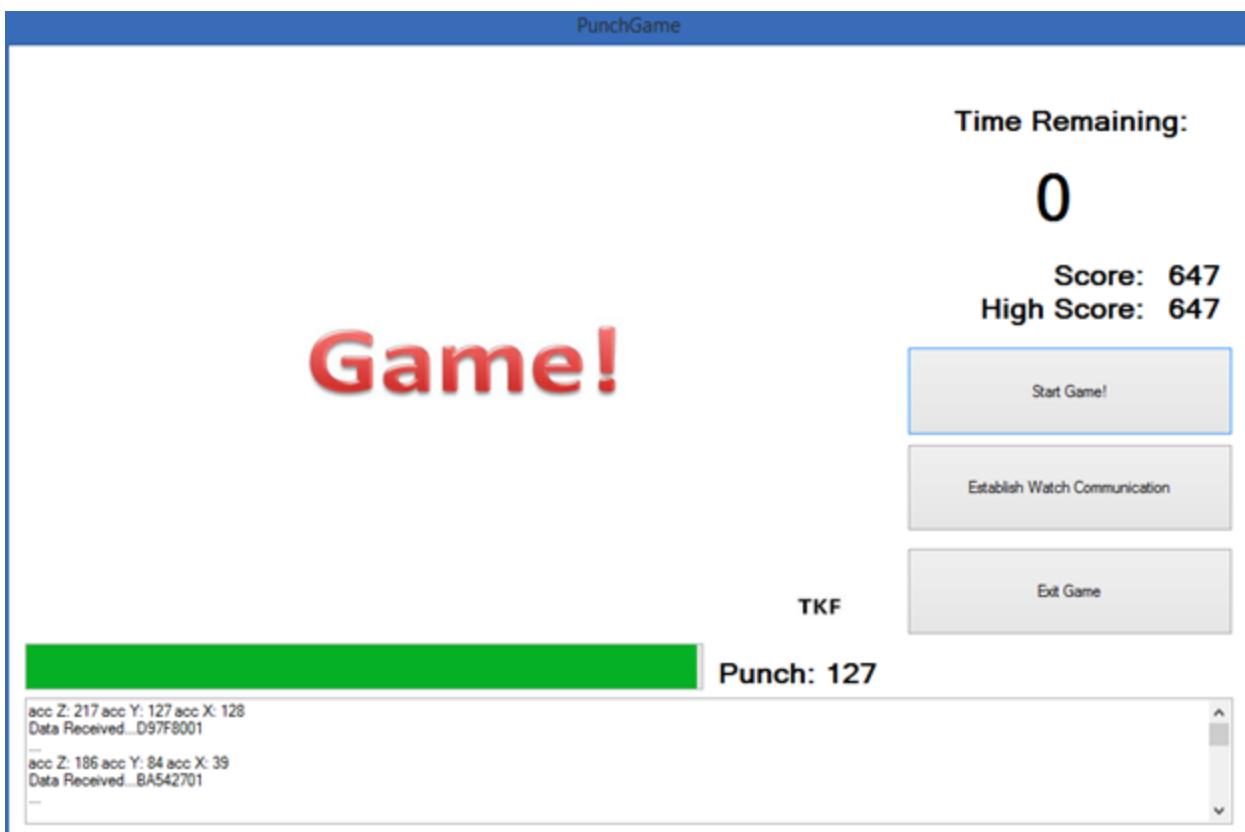


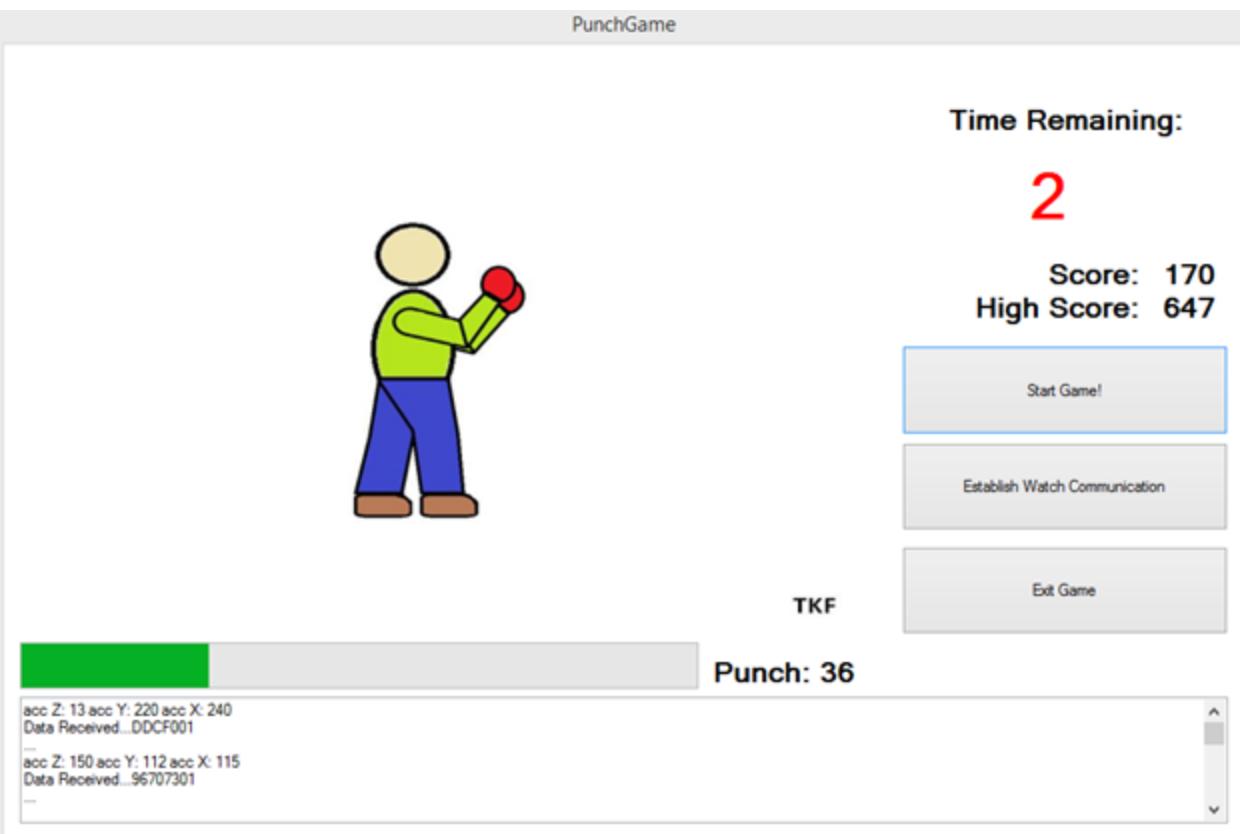
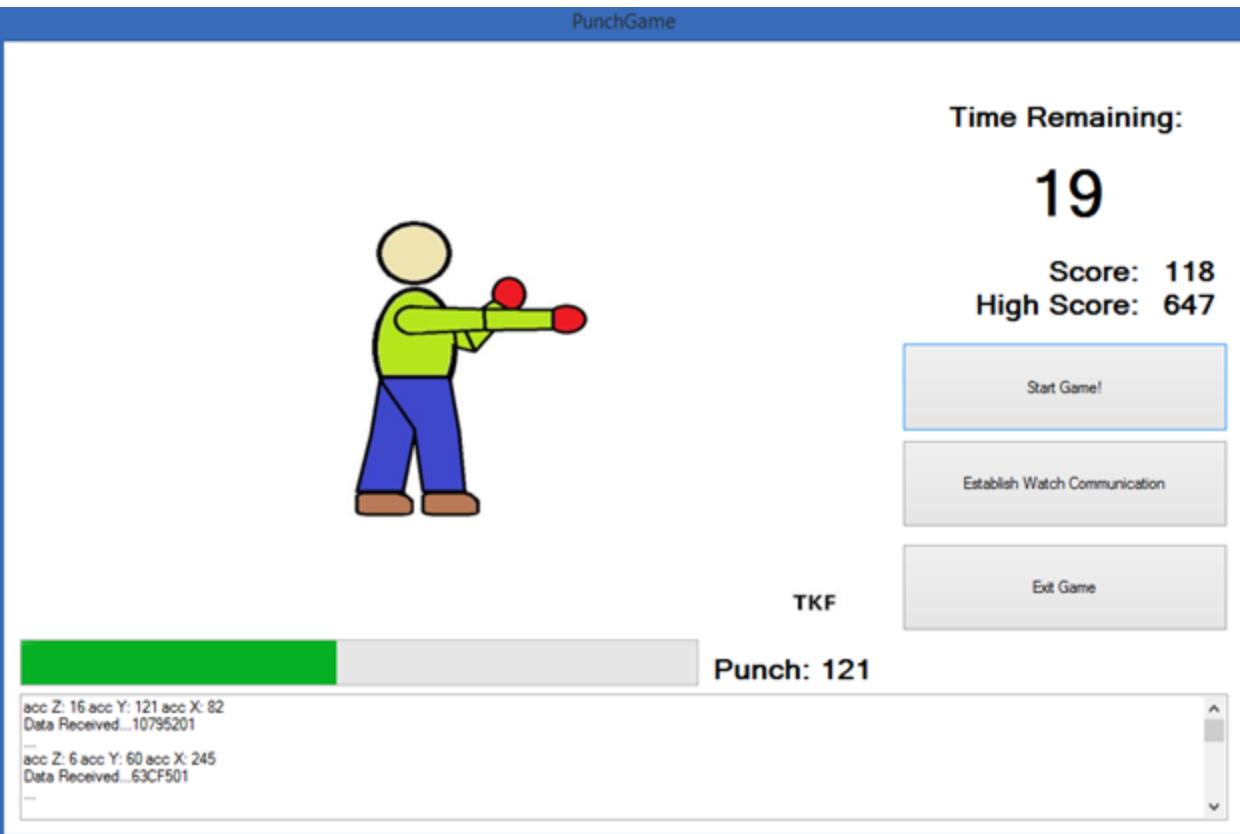
Subtask 4:

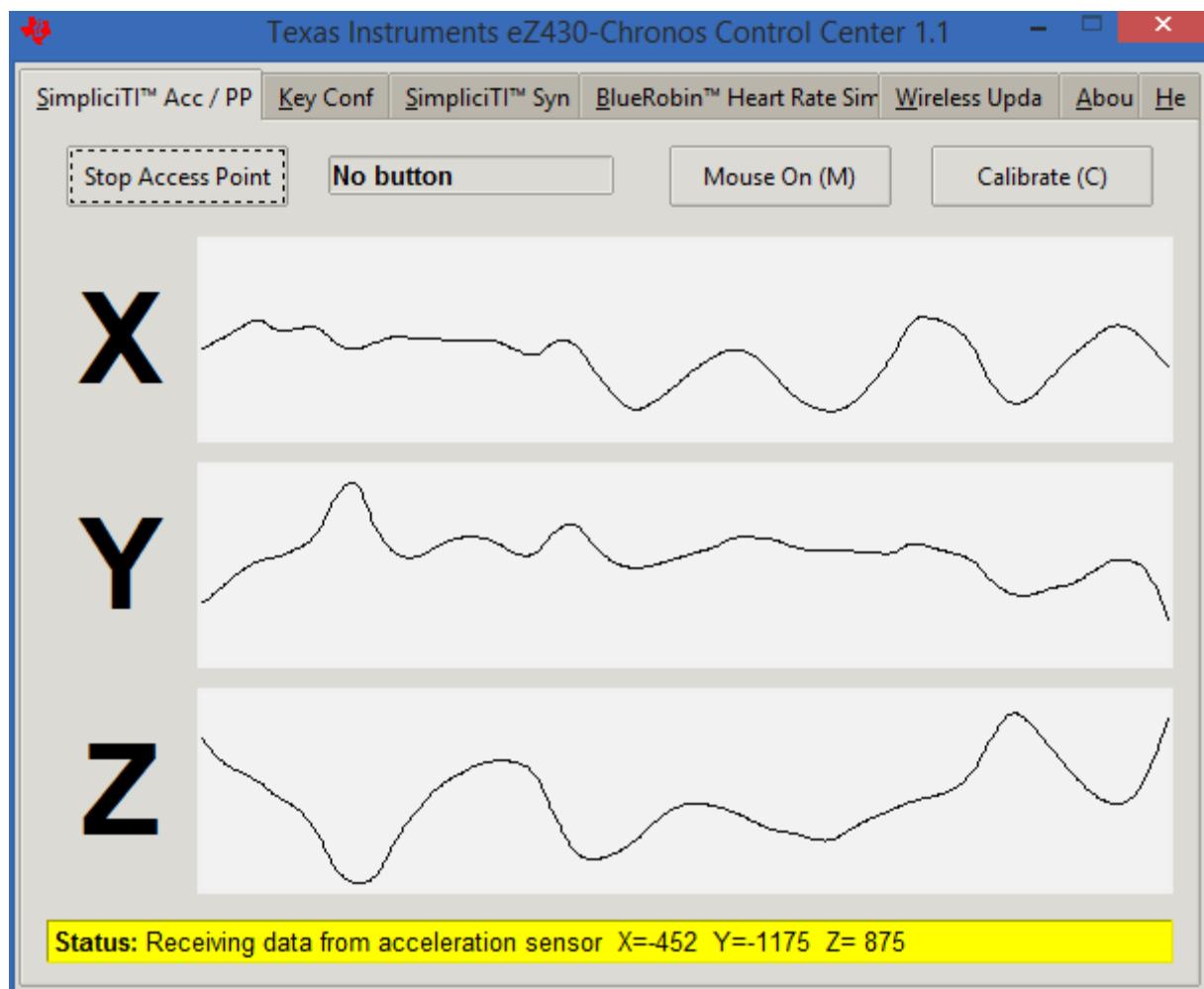


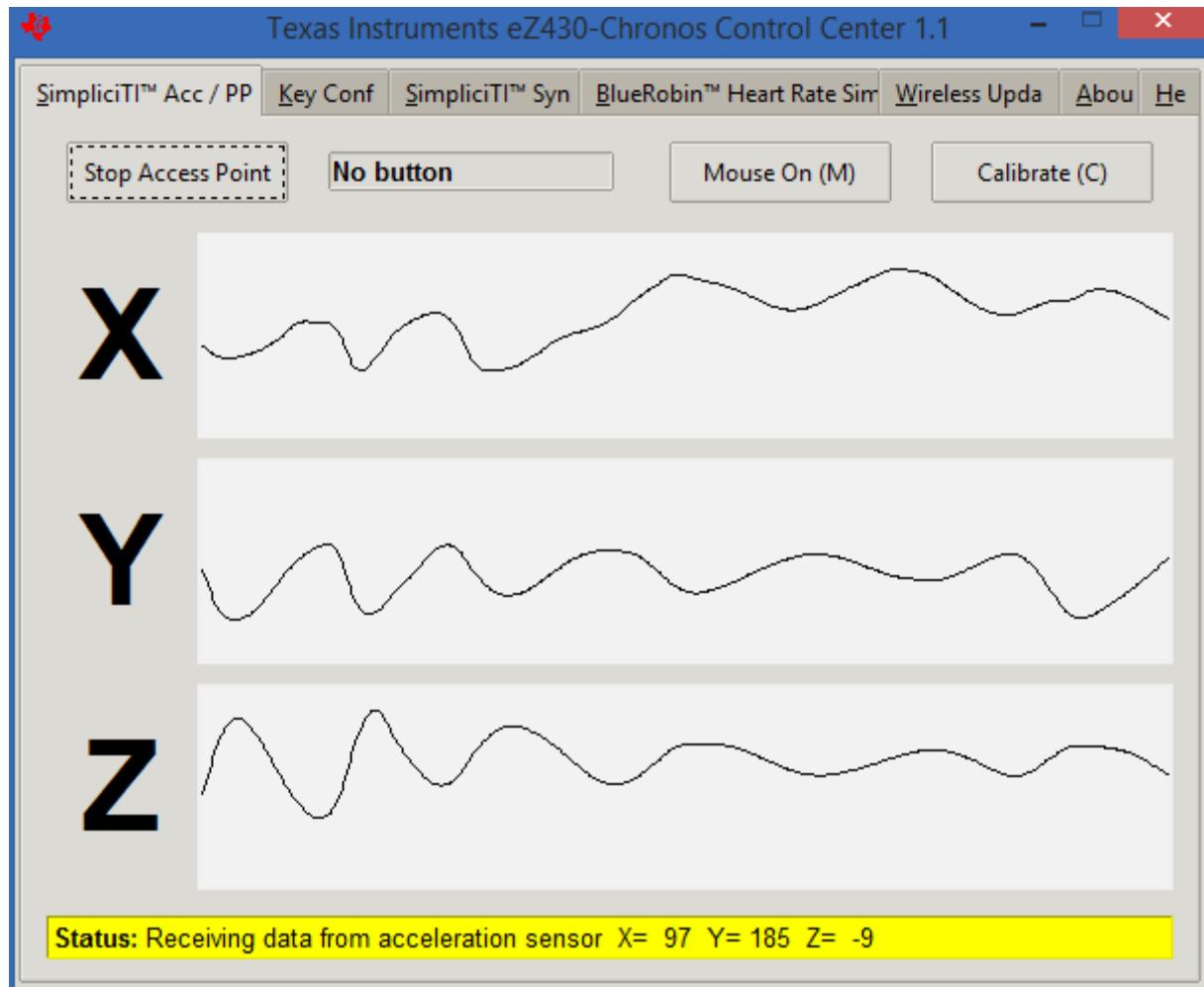


Subtask 5:



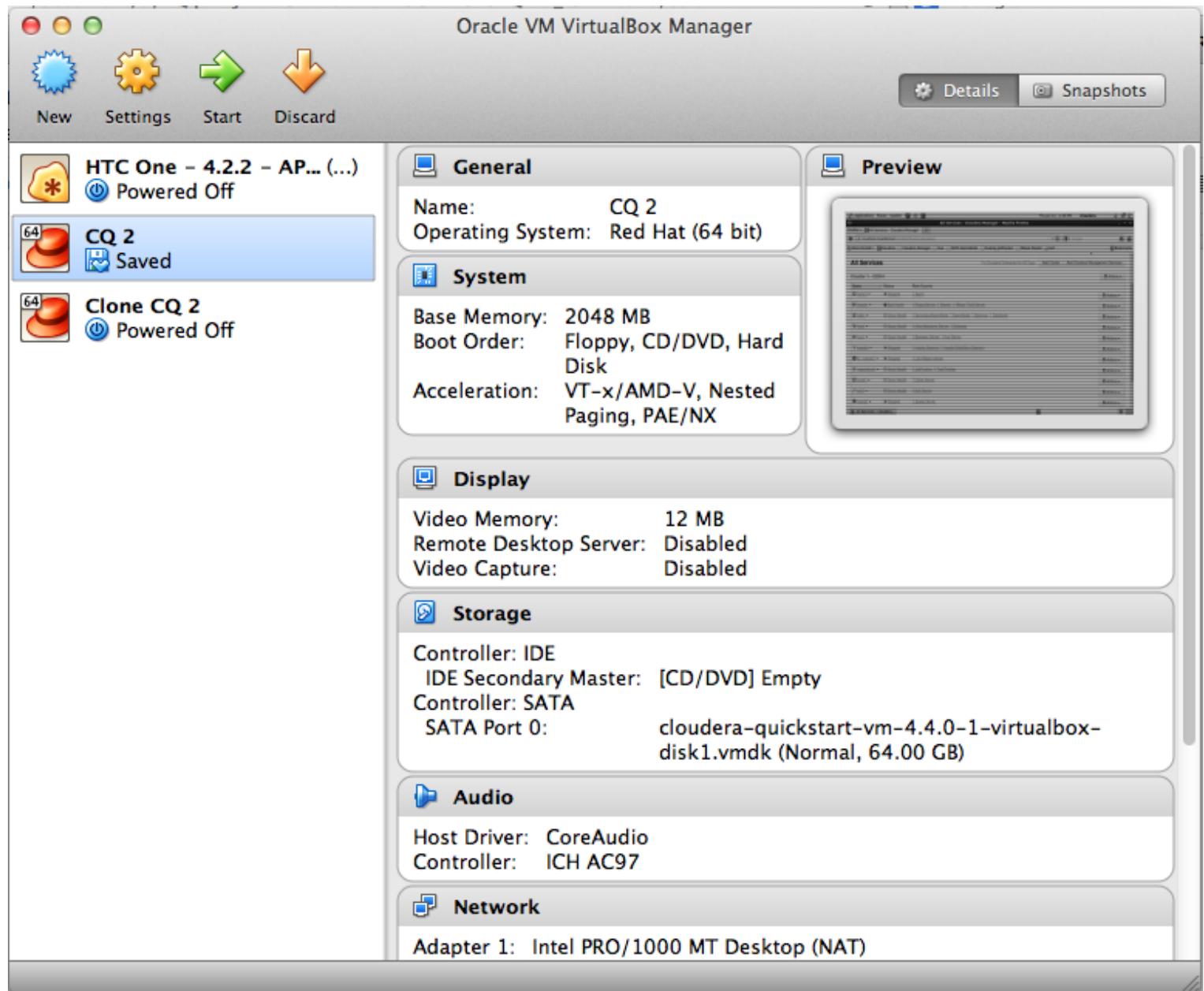






Task 2

Install the [Cloudera Quickstart VM](#) on VirtualBox:





Run some hadoop commands:

```
hadoop fs -put input input  
hadoop jar wordcount.jar WordCount input output10  
hadoop fs -cat output10/*
```

I can see output10 folder in Hue

| <input type="checkbox"/> | <input type="checkbox"/> | cpsc-vectors-1 | cloudera | cloudera | drwxr-xr-x |
|--------------------------|--------------------------|---------------------|----------|----------|------------|
| <input type="checkbox"/> | <input type="checkbox"/> | cpsc-vectors-3 | cloudera | cloudera | drwxr-xr-x |
| <input type="checkbox"/> | <input type="checkbox"/> | input | cloudera | cloudera | drwxr-xr-x |
| <input type="checkbox"/> | <input type="checkbox"/> | output10 | cloudera | cloudera | drwxr-xr-x |
| <input type="checkbox"/> | <input type="checkbox"/> | temp | cloudera | cloudera | drwxr-xr-x |
| <input type="checkbox"/> | <input type="checkbox"/> | test-cpsc-vectors-1 | cloudera | cloudera | drwxr-xr-x |

Build WordCountExample and run it.

```

import java.io.IOException;
import java.util.StringTokenizer;

import org.apache.hadoop.conf.Configuration;
import org.apache.hadoop.fs.Path;
import org.apache.hadoop.io.*;
import org.apache.hadoop.mapreduce.Job;
import org.apache.hadoop.mapreduce.Mapper;
import org.apache.hadoop.mapreduce.Reducer;
import org.apache.hadoop.mapreduce.lib.input.FileInputFormat;
import org.apache.hadoop.mapreduce.lib.output.FileOutputFormat;
import org.apache.hadoop.util.GenericOptionsParser;

public class WordCount {
    public static class Map extends
        Mapper<LongWritable, Text, Text, IntWritable> {
        private final static IntWritable one = new IntWritable(1); // type of
                                                               // output
                                                               // value
        private Text word = new Text(); // type of output key
    }
}

```

I installed Hadoop 2.4.0 on Mac OSX. I had to modify the .bash_profile to include:

```

export HADOOP_INSTALL=~/Applications/hadoop-2.4.0
export PATH=$PATH:$HADOOP_INSTALL/bin

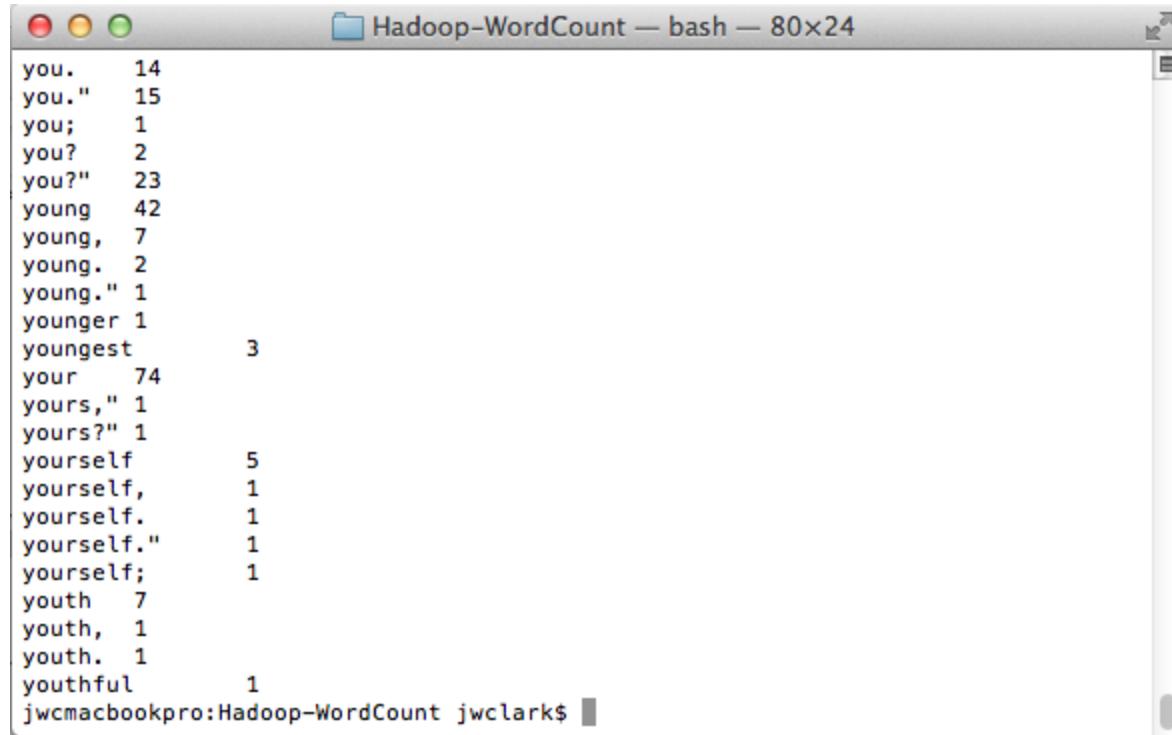
```

Next, I built the word count example and ran these commands:

```
cd ~/Desktop/Hadoop-WordCount
```

```
hadoop jar WordCountExample.jar WordCount input output  
hadoop fs -cat output/*
```

The end of the output looks like this:



```
you.      14
you."    15
you;     1
you?     2
you??"   23
young    42
young,    7
young.    2
young."   1
younger   1
youngest      3
your     74
yours,"   1
yours??"  1
yourself    5
yourself,   1
yourself.   1
yourself."  1
yourself;   1
youth     7
youth,    1
youth.    1
youthful      1
jwcmacbookpro:Hadoop-WordCount jwclark$
```