Lab 2 Report

Android application is developed as part of Assignment 2 for the course 560.

The above application interacts with Bluetooth low energy device, and retrieves Accelerometer data using a GATT profile. I used the data from device (acceleration in 3 Dimension) to predict basic patterns/movements of the BLE Device.

Using the patterns recognized, I was able to design a game where the user has to make a gesture to interact with the game.

For example the screen will have an Image of apple and text apple as shown below



Apple

If both the text are same the user is required to stomp (gesture), in order to score a point. On the other hand if the image and text are different the user is required to kick (gesture) his leg in the forward direction to score a point. If the above steps are not followed correctly he loses a point.

Timing in the game is not implemented yet. The data received from the sensor is real time data and I am directly processing the data, instead of saving it in a file, which makes the application really quick to respond.