Lab 2:

Group Name: Open Source Security (OSS)

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Project: Security System

Updates:

Node 1:

* LCD working
* Keypad Working
* Speaker for alarm Working
* LED to mimic speaker
* Locking/unlocking password Based input
* Menu system once unlocked to choose multiple options

Node 2:

* No updates

Node 3:

* Made a system that can read the values coming from the IMU
* Is capable of detecting the values are beyond a certain threshold of previous values
* Sends an alarm signal if the threshold is broken

Node 4:

* Firebase setup
* Firebase communicates with application
* Firebase communicates from ESP to Cloud
* Application setup

Problem/Bugs:

Node 1:

* If last digit of password is A or B option automatically selected [solved]
* Infinite loop if system is locked [solved]
* Debounce issue (30 keys pressed for every press) [solved]
* After alarm sounds spamming any keys unlocks it [solved]
* Correct Password after countdown corrects system [solved]
* Crashes after the alarm starts, timer 2 seems not to start [solved]
* When timer runs out after 3 attempts timer still accepts password [unsolved]

Node 2:

Node 3:

* Due to a error in definition function to get the average of some data readings, the system was getting overloaded and restarting and then crashing [solved]

Node 4:

* WiFi does not exist, therefore changed boards [unsolved]

Next Work:

* Improve functionality of middleware
* 3D Design of shrouds for all nodes
* Fix unsolved bugs
* Start node 2