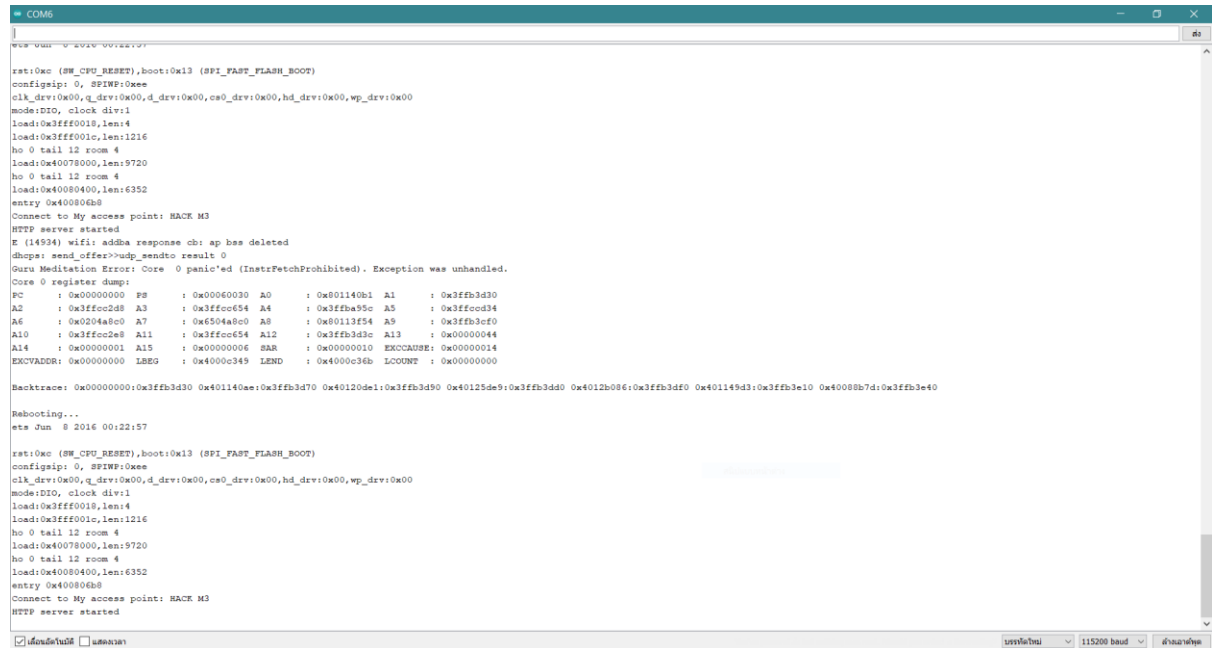


## Part A. WiFi

### A1. Scanning Access Points

Upload The1stAP.ino and capture the output from Serial Monitor then put it below.



```
COM5
[
]
rati:0xc (SW_CPU_RESET),boot:0x13 (SPI_FAST_FLASH_BOOT)
config:0, SPIWP:0xee
clk_drv:0x00,q_drv:0x00,d_drv:0x00,cs0_drv:0x00,hd_drv:0x00,wp_drv:0x00
mode:DIO, clock div:1
load:0x3fff0018,len:4
load:0x3fff001c,len:1216
ho 0 tail 12 room 4
load:0x40078000,len:9720
ho 0 tail 12 room 4
load:0x40080400,len:6352
entry 0x400806b8
Connect to My access point: HACK M3
HTTP server started
E (14594) wifi: addba response cb: ap has deleted
dhrup: send_offset>>wdp_sendto result: 0
Guru Meditation Error: Core 0 panic'ed (InstrFetchProhibited). Exception was unhandled.
Core 0 register dump:
PC      : 0x00000000  PS      : 0x00060030  A0      : 0x801140b1  A1      : 0x3ffb3d30
A2      : 0x3ffcc2d8  A3      : 0x3ffcc654  A4      : 0x3ffba95c  A5      : 0x3ffcc334
A6      : 0x0204a8c0  A7      : 0x6504a0c0  A8      : 0x80113f54  A9      : 0x3ffb3d40
A10     : 0x3ffcc2e8  A11     : 0x3ffcc654  A12     : 0x3ffb3d3c  A13     : 0x00000044
A14     : 0x00000001  A15     : 0x00000006  SAR      : 0x00000010  EXCCAUSE: 0x00000014
EXCVADDR: 0x00000000  LBEG    : 0x4000c349  LEND    : 0x4000c36b  LCOUNT   : 0x00000000

Backtrace: 0x00000000:0x3ffb3d30 0x401140ae:0x3ffb3d70 0x40120de1:0x3ffb3d90 0x40125de9:0x3ffb3dd0 0x4012b086:0x3ffb3df0 0x401149d3:0x3ffb3e10 0x400806b7:0x3ffb3e40

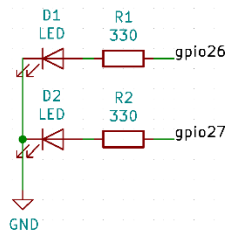
Rebooting...
ets Jun  8 2016 00:22:57

rati:0xc (SW_CPU_RESET),boot:0x13 (SPI_FAST_FLASH_BOOT)
config:0, SPIWP:0xee
clk_drv:0x00,q_drv:0x00,d_drv:0x00,cs0_drv:0x00,hd_drv:0x00,wp_drv:0x00
mode:DIO, clock div:1
load:0x3fff0018,len:4
load:0x3fff001c,len:1216
ho 0 tail 12 room 4
load:0x40078000,len:9720
ho 0 tail 12 room 4
load:0x40080400,len:6352
entry 0x400806b8
Connect to My access point: HACK M3
HTTP server started
```

## Lab 8 Worksheet

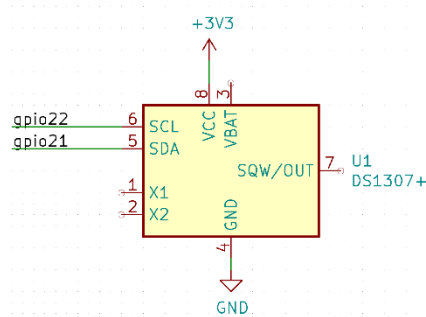
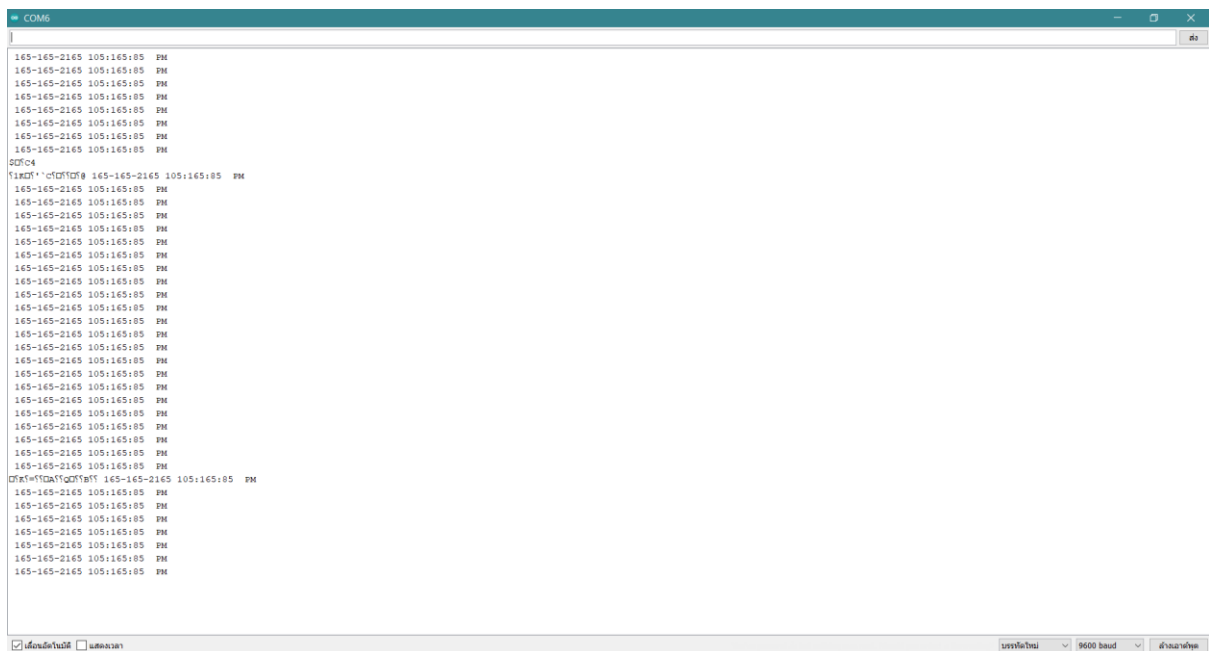
Name Sunat Praphanwong ID 6088130 [P2]

### A2. Web Server



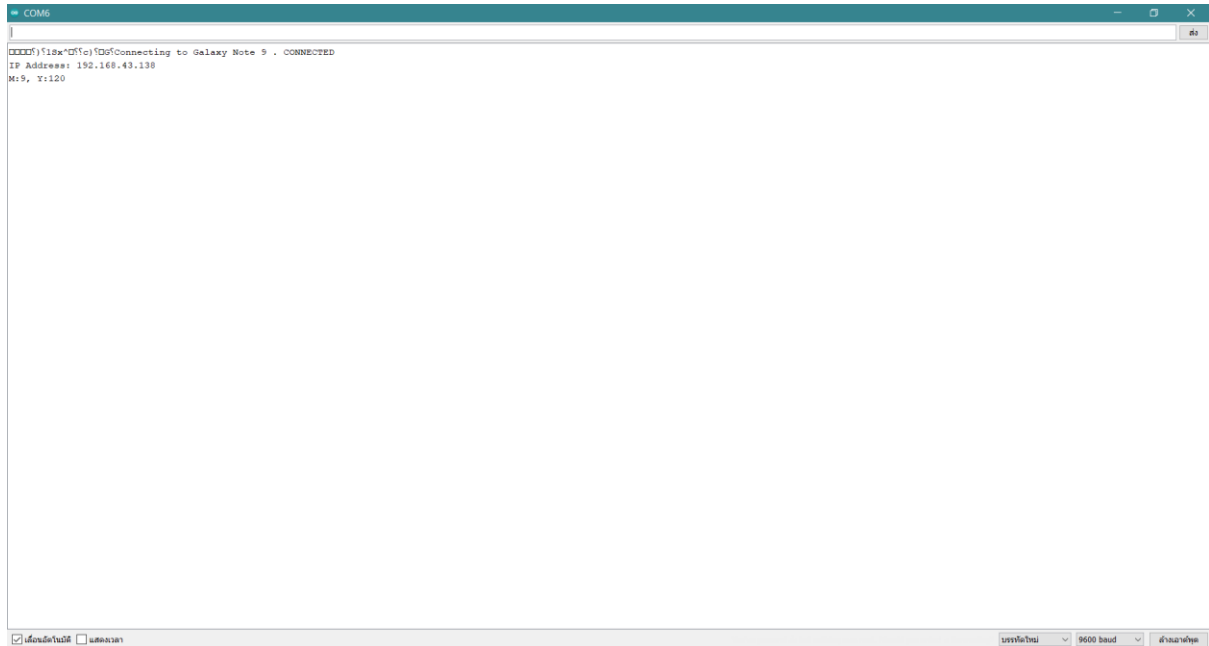
Upload The1stWebServer.ino. Join your laptop and ESP32 to your access point (can be your phone hotspot). From laptop access to ESP32 via its IP address on a web browser. Then try controlling 2 LEDs by using the 2 buttons on the webpage. Take a picture of the webpage and your ESP32 with the LEDs (arrange them in 1 picture) when an LED is turned on and the other one is turned off. Put the picture below.



**Part B. Network Time Protocol (NTP) and Real Time Clock (RTC)****Wire up the RTC as shown below.****B1. Upload DS1307\_M\_Adjust.ino and capture the Serial Monitor after resetting ESP32, then put the picture below.****B2. Upload ntp.ino and capture the Serial Monitor after resetting ESP32, then put the picture below.**

## Lab 8 Worksheet

Name Sunat Praphanwong \_\_\_\_\_ ID 6088130 \_\_\_\_\_ [P4]



**B3. Write a new program that sets the time on DS1307 to the current time from NTP server. Then every second print out the time from DS1307. Put your source code below.**

Note The RTC is broken, we can't get the result from RTC sensor