/\* Code for NodeMCU(ESP8266 WIFI Module) \*/

#include <ArduinoWiFiServer.h>

#include <BearSSLHelpers.h>

#include <CertStoreBearSSL.h>

#include <ESP8266WiFi.h>

#include <ESP8266WiFiAP.h>

#include <ESP8266WiFiGeneric.h>

#include <ESP8266WiFiGratuitous.h>

#include <ESP8266WiFiMulti.h>

#include <ESP8266WiFiScan.h>

#include <ESP8266WiFiSTA.h>

#include <ESP8266WiFiType.h>

#include <WiFiClient.h>

#include <WiFiClientSecure.h>

#include <WiFiClientSecureBearSSL.h>

#include <WiFiServer.h>

#include <WiFiServerSecure.h>

#include <WiFiServerSecureBearSSL.h>

#include <WiFiUdp.h>

#include <SimpleTimer.h>

#include <Blynk.h>

#define BLYNK\_PRINT Serial

#include <ESP8266WiFi.h>

#include <BlynkSimpleEsp8266.h>

#include <SoftwareSerial.h>

#include <SimpleTimer.h>

char auth[] = "7-ibe46cmM-hGXhFYbFKkKMFSDbffN42"; // Blynk Token

char ssid[] = "Gaurav08"; // Our Wifi(Local Area Network)

char pass[] = "123456789"; // Wifi Password

SimpleTimer timer;

String myString;

char rdata;

int firstVal, secondVal, thirdVal;

int led1, led2, led3, led4;

void myTimerEvent()

{

Blynk.virtualWrite(V1, millis() / 1000);

}

void setup()

{

Serial.begin(9600);

Blynk.begin(auth, ssid, pass);

timer.setInterval(1000L, sensorvalue1);

timer.setInterval(1000L, sensorvalue2);

timer.setInterval(1000L, sensorvalue3);

timer.setInterval(1000L, sensorvalue4);

}

void loop()

{

if (Serial.available() == 0 )

{

Blynk.run();

timer.run();

}

if (Serial.available() > 0 )

{

rdata = Serial.read();

myString = myString + rdata;

if ( rdata == '\n')

{

Serial.println(myString);

String l = getValue(myString, ',', 0);

String m = getValue(myString, ',', 1);

String n = getValue(myString, ',', 2);

String o = getValue(myString, ',', 3);

led1 = l.toInt();

led2 = m.toInt();

led3 = n.toInt();

led4 = o.toInt();

myString = "";

}

}

}

void sensorvalue1()

{

int sdata = led1;

Blynk.virtualWrite(V10, sdata);

}

void sensorvalue2()

{

int sdata = led2;

Blynk.virtualWrite(V11, sdata);

}

void sensorvalue3()

{

int sdata = led3;

Blynk.virtualWrite(V12, sdata);

}

void sensorvalue4()

{

int sdata = led4;

Blynk.virtualWrite(V13, sdata);

}

String getValue(String data, char separator, int index)

{

int found = 0;

int strIndex[] = { 0, -1 };

int maxIndex = data.length() - 1;

for (int i = 0; i <= maxIndex && found <= index; i++) {

if (data.charAt(i) == separator || i == maxIndex) {

found++;

strIndex[0] = strIndex[1] + 1;

strIndex[1] = (i == maxIndex) ? i + 1 : i;

}

}

return found > index ? data.substring(strIndex[0], strIndex[1]) : "";

}