#include <ArduinoOTA.h>

#include <ESP8266WiFi.h>

#include <BlynkSimpleEsp8266.h>

#include <SimpleTimer.h>

char auth[] = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

char ssid[] = "\*\*\*\*\*\*\*\*\*";

char pass[] = "\*\*\*\*\*\*\*\*\*";

SimpleTimer timer;

int CountdownRemainReset;

int CountdownRemain;

int CountdownTimer;

void setup() {

pinMode(5,OUTPUT);

Serial.begin(115200);

WiFi.mode(WIFI\_STA);

Blynk.begin(auth, ssid, pass);

while (Blynk.connect() == false) {}

ArduinoOTA.setHostname("Countdowner"); // OPTIONAL

ArduinoOTA.begin();

CountdownTimer = timer.setInterval(1000, CountdownTimerFunction);

timer.disable(CountdownTimer); // disable it on boot

}

void CountdownTimerFunction() {

CountdownRemain--; // remove 1 every second

CountdownShowFormatted(CountdownRemain);

if (!CountdownRemain) { // check if CountdownRemain == 0/FALSE/LOW

timer.disable(CountdownTimer); // if 0 stop timer

Blynk.virtualWrite(1,digitalRead(5)\*255);//moi them

Blynk.virtualWrite(2, LOW); // reset START/STOP button status// moi sua 1thanh 2

Blynk.virtualWrite(0, "TIMER COMPLETE");

Blynk.virtualWrite(6, 255); // LED for timer completed

Blynk.virtualWrite(5, 0); // Timer LED status light off

digitalWrite(5, LOW);//moi them

} else {

Blynk.virtualWrite(6, 0); // LED for timer completed

}

}

BLYNK\_WRITE(1) {

if (param.asInt()) {

if (CountdownRemain) { // check if there is a time set or not

timer.enable(CountdownTimer);

Blynk.virtualWrite(5, 255); // Timer LED status light on

digitalWrite(5, HIGH);//moi them

} else {

Blynk.virtualWrite(1, LOW); // if CountdownRemain is set to 0, then dont start hte timer.

Blynk.virtualWrite(0, "COUNTDOWN TIME NOT SET"); // if CountdownRemain is set to 0, then tell the user

digitalWrite(5, LOW);//moi them

}

} else {

timer.disable(CountdownTimer);

Blynk.virtualWrite(5, 0); // Timer LED status light off

}

//digitalWrite(5, LOW);//moi them1

}

// Button Widget (Momentary): Reset Timer

BLYNK\_WRITE(2) {

CountdownRemain = CountdownRemainReset; // reset to original start time

}

// Slider Widget (60-180): Set Timer (mins)

BLYNK\_WRITE(3) {

if (timer.isEnabled(CountdownTimer)) { // only update if timer not running

Blynk.virtualWrite(3, param.asInt() ); // if running, refuse to let use change slider

} else {

CountdownRemainReset = param.asInt() \* 60 + 1; // + 1 set the timer to 1:00:00 instead of 00:59:59

CountdownRemain = param.asInt() \* 60;

CountdownShowFormatted(CountdownRemain);

}

}

void CountdownShowFormatted(int seconds) {

long days = 0;

long hours = 0;

long mins = 0;

long secs = 0;

String secs\_o = ":";

String mins\_o = ":";

String hours\_o = ":";

secs = seconds; // set the seconds remaining

mins = secs / 60; //convert seconds to minutes

hours = mins / 60; //convert minutes to hours

days = hours / 24; //convert hours to days

secs = secs - (mins \* 60); //subtract the coverted seconds to minutes in order to display 59 secs max

mins = mins - (hours \* 60); //subtract the coverted minutes to hours in order to display 59 minutes max

hours = hours - (days \* 24); //subtract the coverted hours to days in order to display 23 hours max

if (secs < 10) {

secs\_o = ":0";

}

if (mins < 10) {

mins\_o = ":0";

}

if (hours < 10) {

hours\_o = ":0";

}

Blynk.virtualWrite(0, days + hours\_o + hours + mins\_o + mins + secs\_o + secs);

}

void loop() {

Blynk.run();

ArduinoOTA.handle();

timer.run();

}