#include<DHT.h>

#define DHTPIN 2

#define DHTTYPE DHT11

DHT dht(DHTPIN,DHTTYPE);

#include <Wire.h>

#include <Adafruit\_GFX.h>

#include <Adafruit\_SSD1306.h>

#define SCREEN\_WIDTH 128

#define SCREEN\_HEIGHT 64

Adafruit\_SSD1306 display(SCREEN\_WIDTH, SCREEN\_HEIGHT, &Wire, -1);

int freq=5000;

int ledchannel=0;

int ledresolution=8;

int a=analogRead(34);

int temp=30;

void setup()

{

pinMode(2,OUTPUT); // light

pinMode(0,OUTPUT); // fan

pinMode(12,INPUT);

ledcSetup(ledchannel,freq,ledresolution);

Serial.begin(115200);

if(!display.begin(SSD1306\_SWITCHCAPVCC, 0x3C))

{

Serial.println("SSD1306 allocation failed");

for(;;);

}

dht.begin();

}

void loop()

{

delay(2000);

int a=analogRead(12);

float h=dht.readHumidity();

float t=dht.readTemperature();

float f=dht.readTemperature(true);

if(isnan(h) || isnan(t) || isnan(f))

{

Serial.println("dht failed");

}

else

{

Serial.print("Humidity: ");

Serial.print(h);

Serial.println("%");

Serial.print("Temparature: ");

Serial.print(t);

Serial.println(" °C");

Serial.print("Temp in F: ");

Serial.print(f);

Serial.println(" °F");

display.clearDisplay();

display.setTextSize(1);

display.setTextColor(WHITE);

display.setCursor(0, 10);

display.println(" ");

display.print("intensity= ");

display.println(ldr);

display.print("Humidity: ");

display.print(h);

display.println("%");

display.print("Temparature: ");

display.print(t);

display.println(" Celsius");

display.display();

if(a<100)

{

digitalWrite(34,HIGH);

delay(1000);

Serial.println("Ldr value is....");

Serial.print(a);

}

else

{

digitalWrite(0,LOW);

delay(1000);

}

if(t>=temp)

{

digitalWrite(5,HIGH);

Serial.print("LED2 is on"); //fan is on

}

else

{

digitalWrite(5,LOW);

Serial.println("LED2 is off"); //fan is off

}

}

}