*ASSIGNMENT -3*

#include "DHT.h"

#define DHTPIN 4 // Digital pin connected to the DHT sensor

//#define DHTTYPE DHT11 // DHT 11

#define DHTTYPE DHT11 // DHT 22 (AM2302), AM2321

DHT dht(DHTPIN, DHTTYPE);

#include <Wire.h>

#include <Adafruit\_GFX.h>

#include <Adafruit\_SSD1306.h>

#define SCREEN\_WIDTH 128 // OLED display width, in pixels

#define SCREEN\_HEIGHT 64 // OLED display height, in pixels

// Declaration for an SSD1306 display connected to I2C (SDA, SCL pins)

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

void setup() {

dht.begin();

Serial.begin(115200);

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

Serial.println("SSD1306 allocation failed");

for(;;);

}

}

void loop() {

delay(6000);

int ldrval=analogRead(15);

float h = dht.readHumidity();

float t = dht.readTemperature();

float f = dht.readTemperature(true);

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

Serial.println("Failed to read from DHT sensor!");

}

else

{

Serial.print("Humidity: ");

Serial.println(h);

Serial.print("% Temperature: ");

Serial.println(t);

Serial.print("°C ");

Serial.println(f);

Serial.print("the LDR intensity is:");

Serial.println(ldrval);

display.clearDisplay();

display.setTextSize(1);

display.setTextColor(WHITE);

display.setCursor(0, 10);

display.println(" ");

display.print("the ldr intensity is ");

display.println(ldrval);

display.print("Humidity: ");

display.print(h);

display.println("%");

display.print("Temparature: ");

display.print(t);

display.println("°C ");

display.print(f);

display.display();

}

}