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// Comment this out to disable prints and save space

#include <SPI.h>

#include <DHT.h>

#include <ESP8266WiFi.h>

#include <FirebaseESP8266.h>

#define FIREBASE_HOST "agriiot-odugaa-jana-default-rtdb.firebaseio.com"

#define FIREBASE_AUTH "7SvKj7VemWgek22yXN9ASqWeWrHHIx376TWHFDZ2" //Your Firebase
Database Secret goes here

#define WIFI_SSID "Odugaa" //WiFi SSID to which you want NodeMCU to
connect

#define WIFI_PASSWORD "Odugaatech@123" //Password of your wifi network

// Declare the Firebase Data object in the global scope
FirebaseData firebaseData;


// Declare global variable to store value
int val = 0;

int analogPin = A0; // potentiometer wiper (middle terminal) connected to analog pin 3
// outside leads to ground and +5V
int soilval = 0; // variable to store the value read


void soil() ;


int soundPin = D3; // pushbutton connected to digital pin 7
int soundval = 0; // variable to store the read value


void soundfun();


//#define DHTPIN 14 // Digital pin 4
int DHTPIN = D2;
//#define Fan D6

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#define DHTTYPE DHT11 // DHT 11

DHT dht(DHTPIN, DHTTYPE);

//SimpleTimer timer;

void sendSensor()
{
    float h = dht.readHumidity();
    float t = dht.readTemperature(); // or dht.readTemperature(true) for Fahrenheit

    if (isnan(h) || isnan(t)) {
        Serial.println("Failed to read from DHT sensor!");
        return;
    }
    // You can send any value at any time.
    // Please don't send more that 10 values per second.

    Serial.print("temp :");
    Serial.println(t);

    Serial.println("humi:");
    Serial.println(h);

    // if(Firebase.setInt(firebaseData, "/Data/led/temp", t)){
    //   Serial.println(" connect to tmp send ");
    // }else{
    //   Serial.println(" connect failed tmp");
    // }

    Firebase.setInt(firebaseData, "/Data/led/humi", h );
    Firebase.setInt(firebaseData, "/Data/led/temp", t );

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// if(t>=34){
//   //digitalWrite(Fan, HIGH);
// }
// else{
//   //digitalWrite(Fan, LOW);
// }
}
// pinMode(Fan,OUTPUT);

// Setup a function to be called every second
// timer.setInterval(100L, sendSensor);
//delay(2000);

void soil()
{
  soilval = analogRead(analogPin); // read the input pin
  Serial.println(soilval);      // debug value
  Firebase.setInt(firebaseData, "/Data/led/soilval", soilval );
}

void soundfun()
{
  soundval = digitalRead(soundPin); // read the input pin
  Serial.println( soundval);
  Firebase.setInt(firebaseData, "/Data/led/soundval", soundval);
}

```

```
void setup()
{
  Serial.begin(115200);
  dht.begin();

  Serial.println("Serial communication started\n\n");

  WiFi.begin(WIFI_SSID, WIFI_PASSWORD);           //try to connect with wifi
  Serial.print("Connecting to ");
  Serial.print(WIFI_SSID);

  while (WiFi.status() != WL_CONNECTED) {
    Serial.print(".");
    delay(500);
  }

  Serial.println();
  Serial.print("Connected to ");
  Serial.println(WIFI_SSID);
  Serial.print("IP Address is : ");
  Serial.println(WiFi.localIP());                  //print local IP address
  Firebase.begin(FIREBASE_HOST, FIREBASE_AUTH); // connect to firebase

  Firebase.reconnectWiFi(true);
  delay(1000);
}
```

```

void loop()
{
  Serial.print("hi");
  sendSensor();
  soil() ;
  soundfun();

  // if (Firebase.setInt(firebaseData, "/Data/led/value", val)) { // On successful Write operation,
function returns 1
  //      Serial.println("Value Uploaded Successfully");
  //      Serial.print("Val = ");
  //      Serial.println(val);
  //      Serial.println("\n");
  //
  //      val++;
  //      delay(100);
  //
  //  }
  //
  // else {
  //   Serial.println(firebaseData.errorReason());
  //
  //  }

  // timer.run(); // Initiates SimpleTimer
}

```