#include "arduino\_secrets.h"

#include <DHT.h>

/\*

Sketch generated by the Arduino IoT Cloud Thing "Untitled"

https://create.arduino.cc/cloud/things/214eaafa-91a1-4698-a304-940f633793f8

Arduino IoT Cloud Variables description

The following variables are automatically generated and updated when changes are made to the Thing

CloudSwitch light1;

CloudSwitch light2;

CloudSwitch light3;

CloudSwitch light4;

CloudTemperatureSensor temperature;

Variables which are marked as READ/WRITE in the Cloud Thing will also have functions

which are called when their values are changed from the Dashboard.

These functions are generated with the Thing and added at the end of this sketch.

\*/

#include "thingProperties.h"

#define Switch1 D1

#define Switch2 D2

#define Switch3 D3

#define Switch4 D4

#define DHTPIN D5

#define DHTTYPE DHT11

DHT dht(DHTPIN, DHTTYPE);

unsigned long previousMillis = 0;

const long interval = 5000;

void setup() {

// Initialize serial

Serial.begin(9600);

delay(1500); // Wait for Serial Monitor

pinMode(Switch1, OUTPUT);

pinMode(Switch2, OUTPUT);

pinMode(Switch3, OUTPUT);

pinMode(Switch4, OUTPUT);

// Initialize the DHT sensor

dht.begin();

// Defined in thingProperties.h

initProperties();

// Connect to Arduino IoT Cloud

ArduinoCloud.begin(ArduinoIoTPreferredConnection);

setDebugMessageLevel(2);

ArduinoCloud.printDebugInfo();

}

void loop() {

ArduinoCloud.update();

unsigned long currentMillis = millis();

if (currentMillis - previousMillis >= interval) {

previousMillis = currentMillis;

sendDHT11Data();

}

}

void sendDHT11Data() {

float temp = dht.readTemperature();

if (isnan(temp)) {

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

} else {

temperature = temp; // Update IoT Cloud variable

Serial.print("Temperature: ");

Serial.print(temp);

Serial.println(" °C");

}

}

void onLight1Change() {

if (light1) {

digitalWrite(Switch1, HIGH);

Serial.println("Light 1 ON");

} else {

digitalWrite(Switch1, LOW);

Serial.println("Light 1 OFF");

}

}

void onLight2Change() {

if (light2) {

digitalWrite(Switch2, HIGH);

Serial.println("Light 2 ON");

} else {

digitalWrite(Switch2, LOW);

Serial.println("Light 2 OFF");

}

}

void onLight3Change() {

if (light3) {

digitalWrite(Switch3, HIGH);

Serial.println("Light 3 ON");

} else {

digitalWrite(Switch3, LOW);

Serial.println("Light 3 OFF");

}

}

void onLight4Change() {

if (light4) {

digitalWrite(Switch4, HIGH);

Serial.println("Light 4 ON");

} else {

digitalWrite(Switch4, LOW);

Serial.println("Light 4 OFF");

}

}

void onTemperatureChange() {

// Not required for temperature as it's a read-only variable

}