#include <SoftwareSerial.h>

#include "DHT.h"

//#define RELAY\_FAN\_PIN A5 // Arduino pin connected to relay which connected to fan

#define DHTPIN 12 // Arduino pin connected to relay which connected to DHT sensor

#define DHTTYPE DHT11

//below is for light sensor

#define LIGHT 7 // define pint for sensor

#define RELAY 2 // define pin 9 as for relay

const int TEMP\_THRESHOLD\_UPPER = 28; // upper threshold of temperature, change to your desire value

const int TEMP\_THRESHOLD\_LOWER = 25; // lower threshold of temperature, change to your desire value

const int RELAY\_FAN\_PIN = 3; // Arduino pin connected to relay which connected to fan

SoftwareSerial BT(10, 11); //TX, RX pins of arduino respetively

DHT dht(DHTPIN, DHTTYPE);

float temperature; // temperature in Celsius

String command;

void setup()

{

BT.begin(9600);

Serial.begin(9600);

pinMode(2, OUTPUT);

pinMode(3, OUTPUT);

dht.begin();

//light

pinMode(LIGHT, INPUT\_PULLUP);// define pin as Input sensor

pinMode(RELAY, OUTPUT);// define pin as OUTPUT for relay

}

void loop()

{

while (BT.available())

{

//Check if there is an available byte to read

delay(10); //Delay added to make thing stable

char c = BT.read(); //Conduct a serial read

command += c; //build the string.

}

if (command.length() > 0)

{

Serial.println(command);

if(command == "light on") //this command will be given as an input to switch on light1

{

digitalWrite(2, HIGH);

}

else if(command == "light off") //this command will be given as an input to switch off light1 simillarly other commands work

{

digitalWrite(2, LOW);

}

else if(command == "lamp on") //this command will be given as an input to switch off light1 simillarly other commands work

{

while(true)

{

// wait a few seconds between measurements.

delay(180);

temperature = dht.readTemperature(); // read temperature in Celsius

if (isnan(temperature))

{

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

}

else

{

if(temperature > TEMP\_THRESHOLD\_UPPER)

{

Serial.println("The fan is turned on");

digitalWrite(3, HIGH); // turn on

}

else if(temperature < TEMP\_THRESHOLD\_LOWER)

{

Serial.println("The fan is turned off");

digitalWrite(3, LOW); // turn on

}

}

// Light LDR Sensor Code by Robojax.com 20180210

int L =digitalRead(LIGHT);// read the sensor

if(L == 1)

{

Serial.println(" light is ON");

digitalWrite(RELAY,HIGH);// turn the relay ON

}

else

{

Serial.println(" === light is OFF");

digitalWrite(RELAY,LOW);// turn the relay OFF

}

delay(5500);

/\*if(command == "lamp off") //this command will be given as an input to switch off light1 simillarly other commands work

{

break;

}\*/

}

}//////////////

else if (command == "fan on")

{

digitalWrite (3, HIGH);

}

else if (command == "fan of")

{

digitalWrite (3, LOW);

}

else if (command == "all on") //using this command you can switch on all devices

{

digitalWrite (2, HIGH);

digitalWrite (3, HIGH);

}

else if (command == "off")//using this command you can switch off all devices

{

digitalWrite (2, LOW);

digitalWrite (3, LOW);

}

command="";

}

/\*

// wait a few seconds between measurements.

delay(60);

temperature = dht.readTemperature();; // read temperature in Celsius

if (isnan(temperature))

{

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

}

else

{

if(temperature > TEMP\_THRESHOLD\_UPPER)

{

Serial.println("The fan is turned on");

digitalWrite(3, HIGH); // turn on

}

else if(temperature < TEMP\_THRESHOLD\_LOWER)

{

Serial.println("The fan is turned off");

digitalWrite(3, LOW); // turn on

}

}

// Light LDR Sensor Code by Robojax.com 20180210

int L =digitalRead(LIGHT);// read the sensor

if(L == 1)

{

Serial.println(" light is ON");

digitalWrite(RELAY,HIGH);// turn the relay ON

}

else

{

Serial.println(" === light is OFF");

digitalWrite(RELAY,LOW);// turn the relay OFF

}

delay(500);

\*/

}

//Reset the variable

//you can add other command to control addition devices by adding an elseif

//and the additions commands you add in sketch can be given through voice regonisation as i have created the app buttons only to control three devices

//thankyou-karthik