PROJECT 10

Taking Temperature Data in Blynk using Dht11

1. INTRODUCTION: -

This project will help you to learn IoT on a simple way, by just connecting the DHT11 temperature and humidity sensor to WeMos D1 Mini and displaying the output on your smartphone using the Blynk app.

COMPONENTS: -

1.WEMOS

2.DHT11

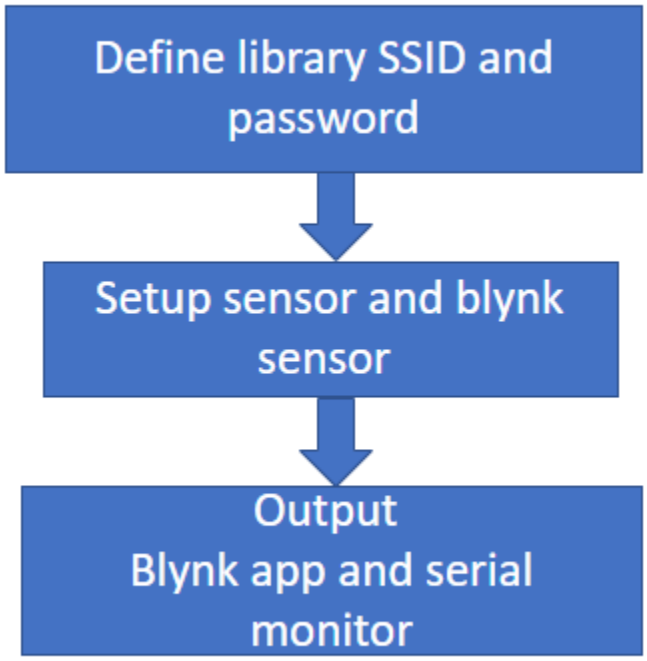
APPLICATION: -

Temperature data are particularly useful for calculating the energy use of the unit processes space heating, space cooling, and ventilation. Information from temperature measurements can also be used to calculate the efficiency of heat exchangers.

OBJECTIVES: -

Monitoring your body temperature, even when you're healthy, can help detect disease early and help you know if it's okay to go to work or school. Part of your brain called the hypothalamus continually adjusts your body temperature to maintain an optimal environment for your body functions.

FLOW CHART: -



PROGRAMMING: -

```
#define BLYNK_PRINT Serial
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>
#include "DHT.h"
#include <SimpleTimer.h>
#define DHTTYPE DHT11
#define dht_dpin D4
DHT dht(dht_dpin, DHTTYPE);
SimpleTimer timer;
char auth[] = "Your Auth Code";
char ssid[] = "Your WiFI";
char pass[] = "Your Wifi Password";
float t;
float h;

void setup()
{
  Serial.begin(9600);
  Blynk.begin(auth, ssid, pass);
  dht.begin();
  timer.setInterval(2000, sendUptime);
}
```

```
void loop()
{
  Blynk.run();
  timer.run();
}

void sendUptime()
{
  float h = dht.readHumidity();
  float t = dht.readTemperature();
  Serial.println("Humidity and temperature\n\n");
  Serial.print("Current humidity = ");
  Serial.print(h);
  Serial.print("%  ");
  Serial.print("temperature = ");
  Serial.print(t);
  Blynk.virtualWrite(V0, t);
  Blynk.virtualWrite(V1, h);
}
```

HARDWARE CONNECTION:-

1. Connect rain water DHT11 to WEMOS
2. Connect pin D0 TO D4
3. Connect pin 5V to 5V

CIRCUIT DIAGRAM: -