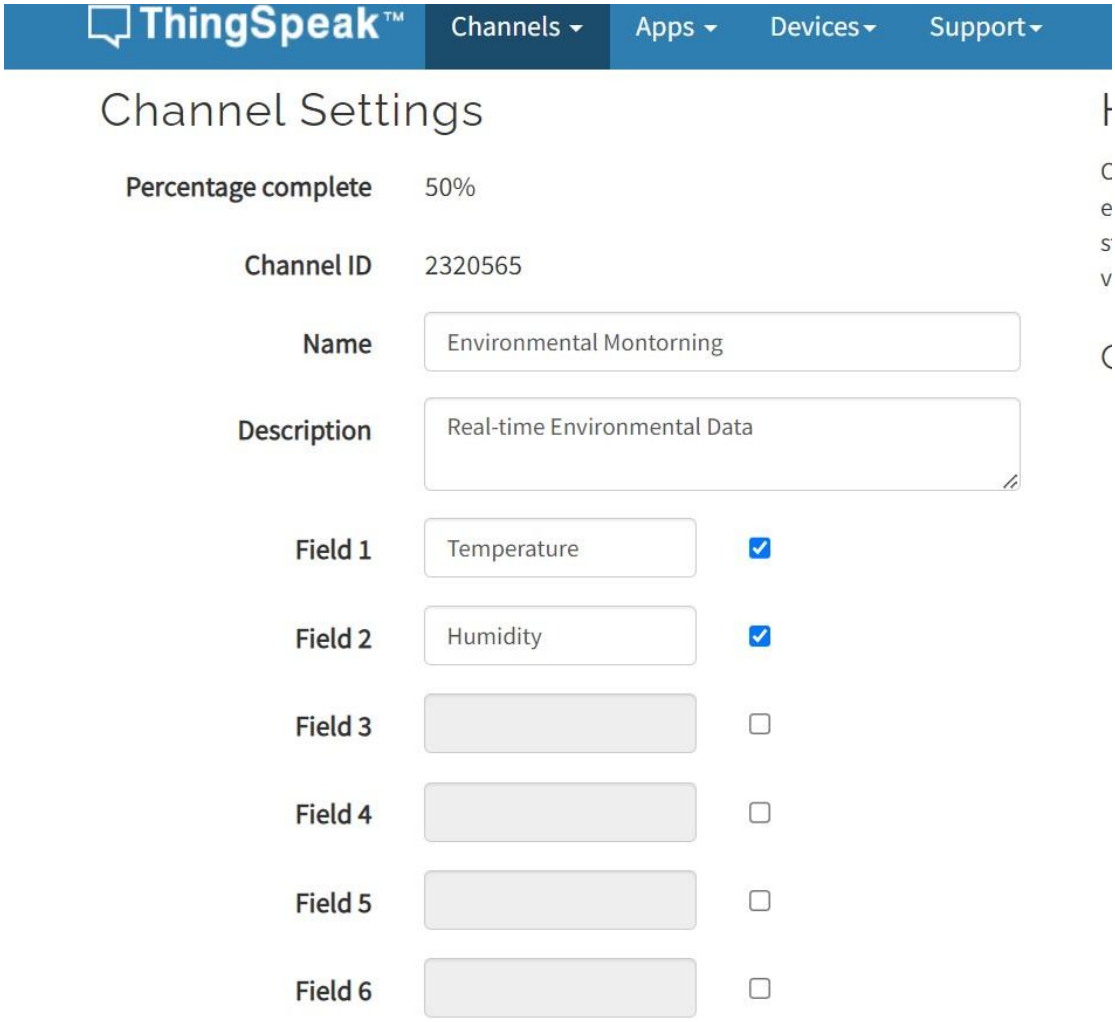
THINKSPEAK

Output:

Creating the new Channel:

1.Environment monitoring with fields Temperature and humidity



2.Sending the data to thinkspeak platform from the workwi

Code:sketech.ino

```
#include <WiFi.h>
#include "DHTesp.h"

#include "ThingSpeak.h"
```

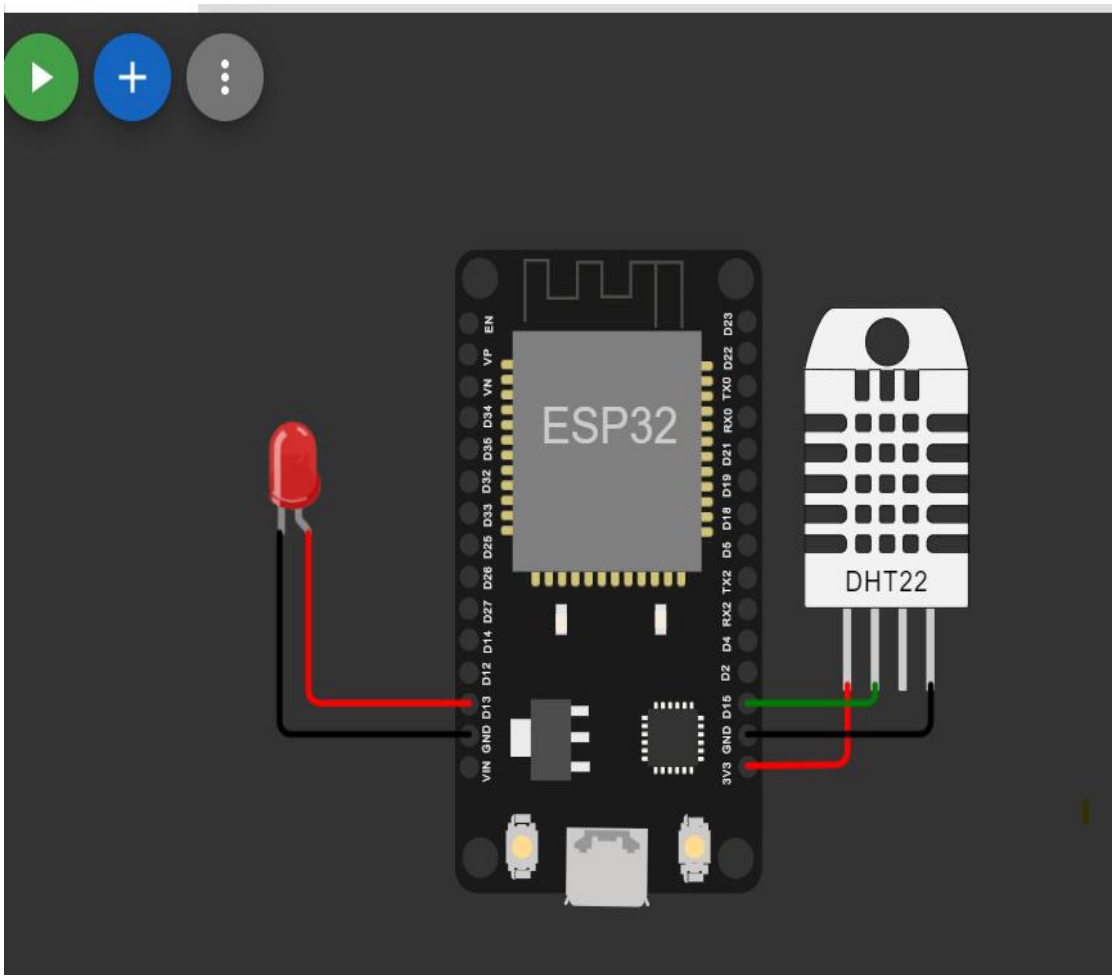
```
const int DHT_PIN = 15;
const int LED_PIN = 13;
const char* WIFI_NAME = "Wokwi-GUEST";
const char* WIFI_PASSWORD = "";
const int myChannelNumber =2320565 ;
const char* myApiKey = "JGAXZ2BZWGRW8VBN";
const char* server = "api.thingspeak.com";

DHTesp dhtSensor;
WiFiClient client;

void setup() {
  Serial.begin(115200);
  dhtSensor.setup(DHT_PIN, DHTesp::DHT22);
  pinMode(LED_PIN, OUTPUT);
  WiFi.begin(WIFI_NAME, WIFI_PASSWORD);
  while (WiFi.status() != WL_CONNECTED){
    delay(1000);
    Serial.println("Wifi not connected");
  }
  Serial.println("Wifi connected !");
  Serial.println("Local IP: " + String(WiFi.localIP()));
  WiFi.mode(WIFI_STA);
  ThingSpeak.begin(client);
}

void loop() {
```

```
  TempAndHumidity  data =
dhtSensor.getTempAndHumidity();
  ThingSpeak.setField(1,data.temperature);
  ThingSpeak.setField(2,data.humidity);
  if (data.temperature > 35 || data.temperature <
12 || data.humidity > 70 || data.humidity < 40) {
    digitalWrite(LED_PIN, HIGH);
  }else{
    digitalWrite(LED_PIN, LOW);
  }

  int x =
ThingSpeak.writeFields(myChannelNumber,myApi
Key);

  Serial.println("Temp: " + String(data.temperature,
2) + "°C");
  Serial.println("Humidity: " + String(data.humidity,
1) + "%");
    if(x == 200){
    Serial.println("Data pushed successfull");
  }else{
    Serial.println("Push error" + String(x));
  }
  Serial.println("---");
delay(10000);
}
```

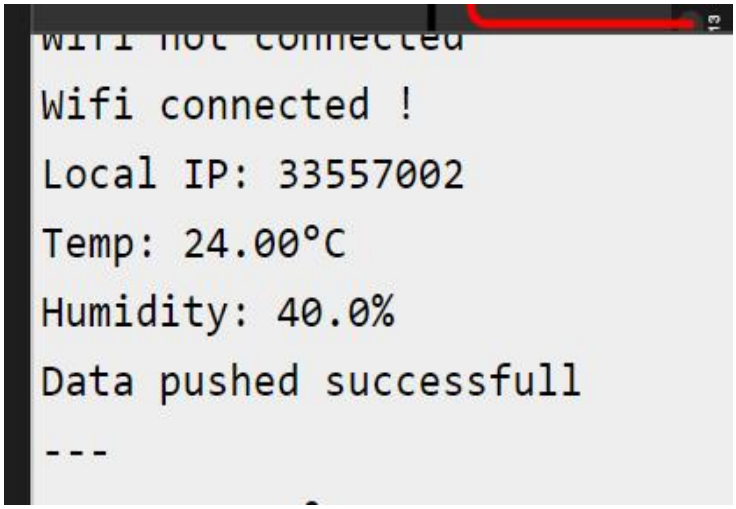
Diagram.json

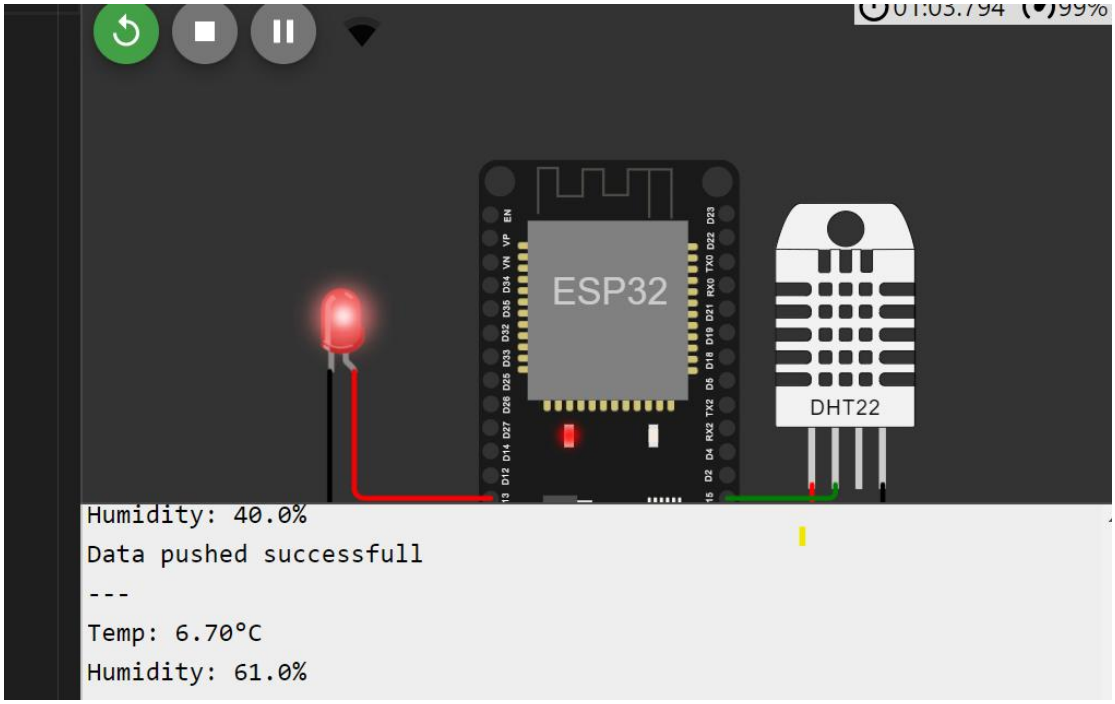
```
{
  "version": 1,
  "author": "21CSE19 KAVIPRIYA",
  "editor": "wokwi",
  "parts": [
    { "type": "wokwi-esp32-devkit-v1", "id": "esp",
"top": -81.34, "left": -116.67, "attrs": {} },
    { "type": "wokwi-dht22", "id": "dht1", "top": -
62.24, "left": 4.2, "attrs": {} },
    {
      "type": "wokwi-led",
      "id": "led1",
      "top": -35.47,
      "left": -192.2,
      "attrs": { "color": "red" }
    }
  ],
  "connections": [
    [ "esp:TX0", "$serialMonitor:RX", "", [] ],
    [ "esp:RX0", "$serialMonitor:TX", "", [] ],
    [ "esp:3V3", "dht1:VCC", "red", [ "v-0.3",
"h96.2" ] ],
    [ "esp:GND.1", "dht1:GND", "black", [ "h0" ] ],
    [ "esp:D15", "dht1:SDA", "green", [ "h0" ] ],
    [ "led1:A", "esp:D13", "red", [ "v0" ] ],
    [ "led1:C", "esp:GND.2", "black", [ "v0" ] ]
  ],
```

```
  "dependencies": {}
}
```



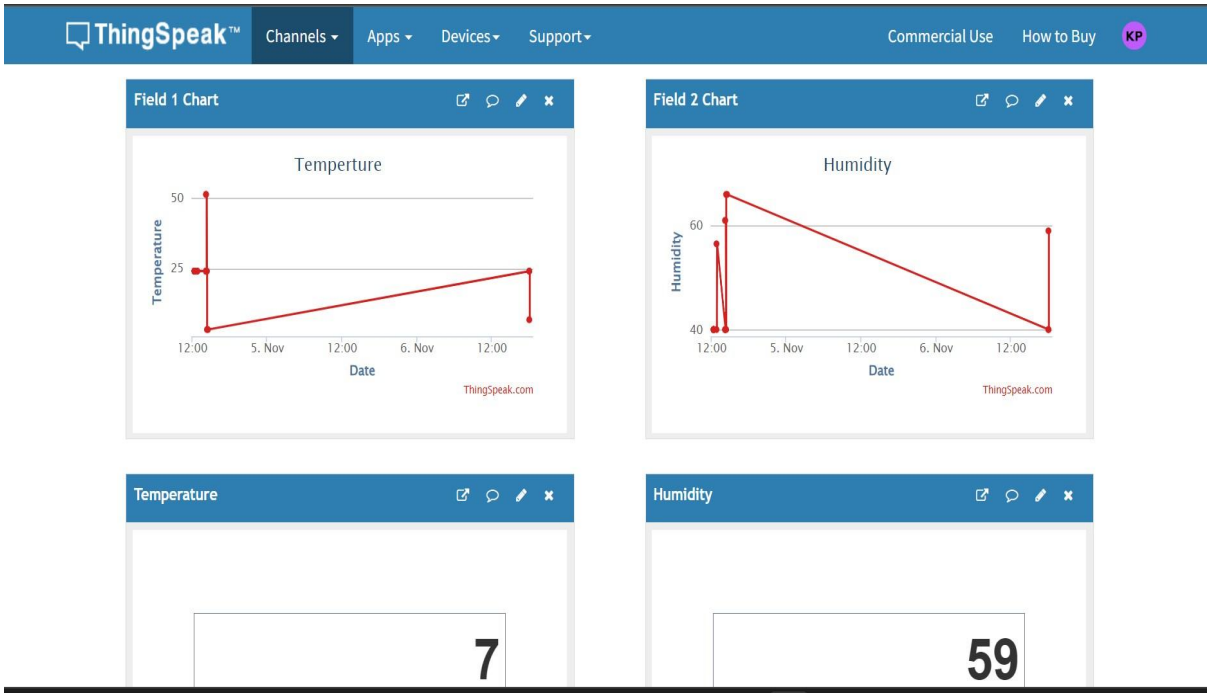
After the simulation starts:

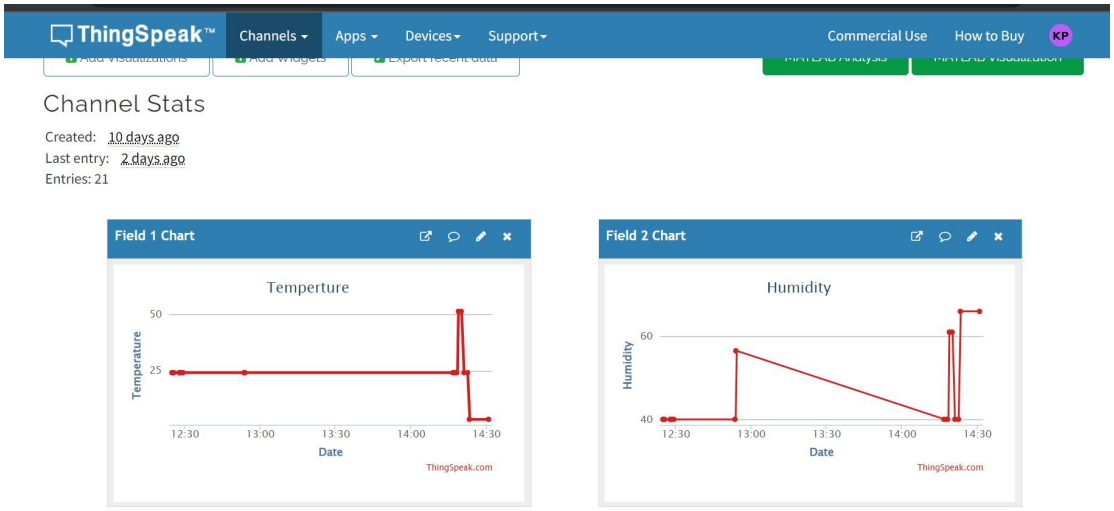




3.Datas sent to thinkspeak

Output





Output in visualization form: