Rpi installing SERVER

RASPBERRY PI OS https://www.raspberrypi.org/software/

RPi as WiFiRouter

https://www.raspberrypi.com/documentation/computers/configuration.html#setting-up-a-routed-wireless-access-point

https://askubuntu.com/questions/98702/how-to-unblock-something-listed-in-rfkill

create database LOGGING;

use LOGGING;

create table temperature (id int AUTO_INCREMENT PRIMARY KEY NOT NULL, temp decimal(5,2),date TIMESTAMP);

INSERT INTO temperature (temp) VALUES (15.2);

select * from temperature;

php script:

sudo chmod -R 777 /var/www/html

nano temperature.php

add

```
<?php
$t = $_GET['t'];
$servername = "localhost";
$username = "root";
$password = "abrakadabra";
$dbname = "LOGGING";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
  die("Connection failed: " . mysqli_connect_error());
}

$sql = "INSERT INTO temperature (temp)
VALUES ($t)";

if (mysqli_query($conn, $sql)) {
  echo "New record created successfully";
} else {
  echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

and save Ctrl+X

ARDUINO / ESP SCRIPT for logging:

```
#include <ESP8266WiFi.h>
#include <ESP8266HTTPClient.h>
#include <WiFiClient.h>

#include <DFRobot_DHT11.h>
DFRobot_DHT11 DHT;
#define DHT11_PIN 16

const char* ssid = "RPiRouter";
const char* password = "abrakadabra";

//Your Domain name with URL path or IP address with path
String serverName = "http://192.168.4.1/temperature.php";

// the following variables are unsigned longs because the time, measured in
// milliseconds, will quickly become a bigger number than can be stored in an int.
unsigned long lastTime = 0;
// Timer set to 10 minutes (600000)
//unsigned long timerDelay = 600000;
// Set timer to 5 seconds (5000)
unsigned long timerDelay = 5000;

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

  WiFi.begin(ssid, password);
  Serial.println("Connecting");
  while(WiFi.status() != WL_CONNECTED) {
    delay(500);
    Serial.print(".");
  }
  Serial.println("");
  Serial.print("Connected to WiFi network with IP Address: ");
  Serial.println(WiFi.localIP());

  Serial.println("Timer set to 5 seconds (timerDelay variable), it will take 5 seconds before
publishing the first reading.");
}

void loop() {
  // Send an HTTP POST request depending on timerDelay
  if ((millis() - lastTime) > timerDelay) {
    DHT.read(DHT11_PIN);
    int t = DHT.temperature;
    //Check WiFi connection status
    if(WiFi.status()== WL_CONNECTED){
      WiFiClient client;
      HTTPClient http;
```

```
    String serverPath = serverName + "?t=" + t;

    // Your Domain name with URL path or IP address with path
    http.begin(client, serverPath.c_str());

    // Send HTTP GET request
    int httpResponseCode = http.GET();

    if (httpResponseCode>0) {
      Serial.print("HTTP Response code: ");
      Serial.println(httpResponseCode);
      String payload = http.getString();
      Serial.println(payload);
    }
    else {
      Serial.print("Error code: ");
      Serial.println(httpResponseCode);
    }
    // Free resources
    http.end();
  }
  else {
    Serial.println("WiFi Disconnected");
  }
  lastTime = millis();
} }
```