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#include <Wire.h>
#include<Adafruit_Sensor.h>
#include<Adafruit_ADXL345_U.h>
#include<ESP8266WiFi.h>
#include<ESP8266HTTPClient.h>
#include<WiFiClient.h>
#include<OneWire.h>
#include<DallasTemperature.h>
const char* ssid      = "iot";
const char* password = "12345678";
const char* serverName = "http://iotcloud22.in/4073_spinal/post_value.php";
WiFiClient client;
HTTPClient http;
#define ONE_WIRE_BUS D7
OneWireoneWire(ONE_WIRE_BUS);
DallasTemperature sensors(&oneWire);
float tempC;

Adafruit_ADXL345_Unified accel = Adafruit_ADXL345_Unified();
int x, y, z;
float xx, yy, zz;
String heartRate = "";
String spo2 = "";
void setup() {
  Serial.begin(9600);

  sensors.begin();
  if (!accel.begin())

  {
    Serial.println("No valid sensor found");

    while (1);
  }
  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());
}

void loop() {

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while (Serial.available() > 0) {
    sensors.requestTemperatures();
    tempC = sensors.getTempCByIndex(0);
    // Read the incoming data from UART
    String receivedData = Serial.readStringUntil('\n');
    sensors_event_t event;
    accel.getEvent(&event);

    xx = event.acceleration.x;
    yy = event.acceleration.y;
    zz = event.acceleration.z;

    // Process the received data
    int commaIndex = receivedData.indexOf(',');
    if (commaIndex != -1) {
        heartRate = receivedData.substring(0, commaIndex);
        spo2 = receivedData.substring(commaIndex + 1);

        // Print received heart rate and SpO2
        Serial.print("Heart Rate: ");
        Serial.println(heartRate);
        Serial.print("SpO2: ");
        Serial.println(spo2);
        Serial.print("X: "); Serial.println(event.acceleration.x);
        Serial.print("Y: "); Serial.println(event.acceleration.y);
        Serial.print("Z: "); Serial.println(event.acceleration.z);
        Serial.print("Temperature for the device 1 (index 0) is: "), Serial.
println(tempC);
        sending_to_db();
    }
}

void sending_to_db()
{
    if (WiFi.status() == WL_CONNECTED)
    {

        http.begin(client, serverName);
        http.addHeader("Content-Type", "application/x-www-form-urlencoded");

        String httpRequestData = "&value1=" + String(heartRate) + "&value2=" +
String(spo2) + "&value3=" + String(xx) + "&value4=" + String(yy) + "&value5=" +
String(zz) + "&value6=" + String(tempC) + "";
        Serial.print("httpRequestData: ");
        Serial.println(httpRequestData);
    }
}

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int httpResponseCode = http.POST(httpRequestData);
if (httpResponseCode > 0) {
    Serial.print("HTTP Response code: ");
    Serial.println(httpResponseCode);
}
else {
    Serial.print("Error code: ");
    Serial.println(httpResponseCode);
}
http.end();
}
else {
    Serial.println("WiFi Disconnected");
}
}
```