COVID PATIENT TRACKING

#include <Adafruit\_Sensor.h>

#include <DHT.h>

#include <DHT\_U.h>

#include <Wire.h>

#include <Adafruit\_SSD1306.h>

#include <WiFi.h>

#define DHTPIN 2

#define DHTTYPE DHT11

DHT dht(DHTPIN, DHTTYPE);

const char\* ssid = "Your\_SSID";

const char\* password = "Your\_PASSWORD";

const char\* server = "http://example.com/api";

#define SCREEN\_WIDTH 128

#define SCREEN\_HEIGHT 64

Adafruit\_SSD1306 display(SCREEN\_WIDTH, SCREEN\_HEIGHT, &Wire, -1);

float temperature = 0.0;

float humidity = 0.0;

float oxygenLevel = 0.0;

float heartRate = 0.0;

void setup() {

Serial.begin(115200);

dht.begin();

if (!display.begin(SSD1306\_I2C\_ADDRESS, 0x3C)) {

Serial.println(F("SSD1306 allocation failed"));

for (;;);

}

display.clearDisplay();

WiFi.begin(ssid, password);

Serial.print("Connecting to Wi-Fi");

while (WiFi.status() != WL\_CONNECTED) {

delay(1000);

Serial.print(".");

}

Serial.println("\nConnected to Wi-Fi");

display.setTextSize(1);

display.setTextColor(WHITE);

display.setCursor(0, 0);

display.println("Wi-Fi Connected");

display.println(WiFi.localIP());

display.display();

delay(2000);

display.clearDisplay();

}

void loop() {

temperature = dht.readTemperature();

humidity = dht.readHumidity();

oxygenLevel = random(95, 99);

heartRate = random(60, 100);

if (isnan(temperature) || isnan(humidity)) {

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

return;

}

display.clearDisplay();

display.setCursor(0, 0);

display.println("COVID Tracking System");

display.println("---------------------");

display.print("Temp: ");

display.print(temperature);

display.println(" C");

display.print("Humidity: ");

display.print(humidity);

display.println(" %");

display.print("O2: ");

display.print(oxygenLevel);

display.println(" %");

display.print("HR: ");

display.print(heartRate);

display.println(" bpm");

display.display();

if (WiFi.status() == WL\_CONNECTED) {

WiFiClient client;

if (client.connect(server, 80)) {

String postData = "temperature=" + String(temperature) +

"&humidity=" + String(humidity) +

"&oxygenLevel=" + String(oxygenLevel) +

"&heartRate=" + String(heartRate);

client.println("POST /api/data HTTP/1.1");

client.println("Host: example.com");

client.println("Content-Type: application/x-www-form-urlencoded");

client.print("Content-Length: ");

client.println(postData.length());

client.println();

client.print(postData);

client.stop();

Serial.println("Data sent to server");

} else {

Serial.println("Failed to connect to server");

}

} else {

Serial.println("Wi-Fi Disconnected");

}

delay(5000);

}