#include <WiFi.h>

#include <PubSubClient.h>

const char\* ssid = "IoT Lab";

const char\* password = "labzapametnetehnologije";

const char\* mqttServer = "35.242.233.143";

const int mqttPort = 1883;

const char\* mqttUser = "toperkov";

const char\* mqttPassword = "toperkov";

const char\* mqttTopic = "actuator";

const int ledPin = 13;

WiFiClient espClient;

PubSubClient client(espClient);

void setup() {

Serial.begin(115200);

WiFi.begin(ssid, password);

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

delay(1000);

Serial.println("Connecting to WiFi...");

}

Serial.println("Connected to WiFi");

client.setServer(mqttServer, mqttPort);

client.setCallback(callback);

pinMode(ledPin, OUTPUT);

}

void callback(char\* topic, byte\* payload, unsigned int length) {

Serial.println("Message arrived on topic: " + String(topic));

// Convert payload to string

String message = "";

for (int i = 0; i < length; i++) {

message += (char)payload[i];

}

Serial.println("Payload: " + message);

// Check the received message and control the LED accordingly

if (message == "Upali") {

digitalWrite(ledPin, HIGH); // Turn on the LED

} else if (message == "Ugasi") {

digitalWrite(ledPin, LOW); // Turn off the LED

}

}

void reconnect() {

while (!client.connected()) {

Serial.println("Connecting to MQTT...");

if (client.connect("ESP32Client", mqttUser, mqttPassword )) {

Serial.println("Connected to MQTT");

client.subscribe(mqttTopic);

} else {

Serial.print("Failed, rc=");

Serial.print(client.state());

Serial.println(" Retrying in 5 seconds");

delay(5000);

}

}

}

void loop() {

if (!client.connected()) {

reconnect();

}

client.loop();

}