#include <WiFi.h>

#include <WebServer.h>

const char\* ssid = "Jangjang";

const char\* password = "jangjang";

const int ledPins[] = {15, 4, 5, 21, 22};

WebServer server(80);

void handleRoot()

{String html = "<!DOCTYPE html><html><head><title>ESP32 LED Control</title>";

html += "<style>";

html += "body { font-family: Arial, sans-serif; background-color: #ffccff; color: #660066; text-align: left; margin: 0; padding: 0;}";

html += "h1 { color: #990099; }";

html += "button { font-size: 18px; padding: 10px 20px; margin: 10px; border: none; border-radius: 5px; background-color: #ff66b2; color: white; cursor: pointer; transition: background-color 0.3s ease;}";

html += "button:hover { background-color: #ff3385; }"; // Darker pink hover effect

html += "</style>";

html += "</head><body>";

html += "<h1>ESP32 Web Server - LED Control</h1>";

html += "<button onclick=\"window.location.href='/toggle/on'\">Turn On (All)</button><br>";

html += "<button onclick=\"window.location.href='/toggle/off'\">Turn OFF (All)</button><br>";

html += "<button onclick=\"window.location.href='/toggle/alternate'\">Button 2 LEDs ON/OFF</button><br>";

html += "<button onclick=\"window.location.href='/toggle/sequence'\">Button 3 ON in Sequence</button><br>";

html += "</body></html>";

server.send(200, "text/html", html);

}

void LEDsOn() {

for (int i = 0; i < 5; i++) {

digitalWrite(ledPins[i], HIGH);

}

server.send(200);

}

void LEDsOff() {

for (int i = 0; i < 5; i++) {

digitalWrite(ledPins[i], LOW);

}

server.send(200);

}

void button2()

{

digitalWrite(ledPins[0], HIGH);

delay(500);

digitalWrite(ledPins[0], LOW);

delay(100);

digitalWrite(ledPins[2], HIGH);

delay(500);

digitalWrite(ledPins[2], LOW);

delay(100);

digitalWrite(ledPins[4], HIGH);

delay(500);

digitalWrite(ledPins[4], LOW);

delay(100);

digitalWrite(ledPins[1], HIGH);

delay(500);

digitalWrite(ledPins[1], LOW);

delay(100);

digitalWrite(ledPins[3], HIGH);

delay(500);

digitalWrite(ledPins[3], LOW);

delay(100);

server.send(200);

}

void button3() {

digitalWrite(ledPins[2], HIGH);

delay(500);

digitalWrite(ledPins[1], HIGH);

digitalWrite(ledPins[3], HIGH);

delay(500);

digitalWrite(ledPins[0], HIGH);

digitalWrite(ledPins[4], HIGH);

delay(500);

//reverse

digitalWrite(ledPins[0], LOW);

digitalWrite(ledPins[4], LOW);

delay(500);

digitalWrite(ledPins[1], LOW);

digitalWrite(ledPins[3], LOW);

delay(500);

digitalWrite(ledPins[2], LOW);

server.send(200);

}

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");

// Print the IP address

Serial.println(WiFi.localIP());

for (int i = 0; i < 5; i++) {

pinMode(ledPins[i], OUTPUT);

digitalWrite(ledPins[i], LOW);

}

server.on("/", handleRoot);

server.on("/toggle/on", HTTP\_GET, LEDsOn);

server.on("/toggle/off", HTTP\_GET, LEDsOff);

server.on("/toggle/alternate", HTTP\_GET, button2);

server.on("/toggle/sequence", HTTP\_GET, button3);

server.begin();

Serial.println("HTTP server started");

}

void loop()

{

server.handleClient();

}