Part 1

#include <ESP8266WiFi.h>

WiFiClient client;

WiFiServer server(80);

#define led D4

#define led2 D5

void setup()

{

// put your setup code here, to run once:

Serial.begin(9600);

WiFi.begin("Your Wifi Name", "Your Wifi Password"); // Connect to the wifi

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

{

delay(400);

Serial.print(".");

}

Serial.println();

Serial.println("Nodemcu is connected");

Serial.println(WiFi.localIP()); //Get the ip address

server.begin(); //Start the server

pinMode(led, OUTPUT);

pinMode(led2, OUTPUT);

}

void loop()

{

// put your main code here, to run repeatedly:

client = server.available(); //Gets a client that is connected to the server and has data available for reading.

if (client)

{

String request = client.readStringUntil('\n');

request.trim();

Serial.println(request);

if(request == "GET /led1on HTTP/1.1")

{

digitalWrite(led, HIGH);

}

if(request == "GET /led1off HTTP/1.1")

{

digitalWrite(led, LOW);

}

if(request == "GET /led2on HTTP/1.1")

{

digitalWrite(led2, HIGH);

}

if(request == "GET /led2off HTTP/1.1")

{

digitalWrite(led2, LOW);

}

}

}

Part 2

client.println("HTTP/1.1 200 OK");

client.println("Content-Type: text/html");

client.println("");

client.println("<!DOCTYPE HTML>");

client.println("<html>");

client.println("<h1>Welcome to the Webpage!</h1>");

client.println("<h3>LED Controls<h3>");

client.println("<br>");

client.println("<a href=\"/led1on\"\"><button> LED1 ON</button></a>");

client.println("<a href=\"/led1off\"\"><button>LED1 OFF</button></a><br/>");

client.println("<a href=\"/led2on\"\"><button>LED2 ON</button></a>");

client.println("<a href=\"/led2off\"\"><button>LED2 OFF</button></a><br/>");

client.println("</html>");