



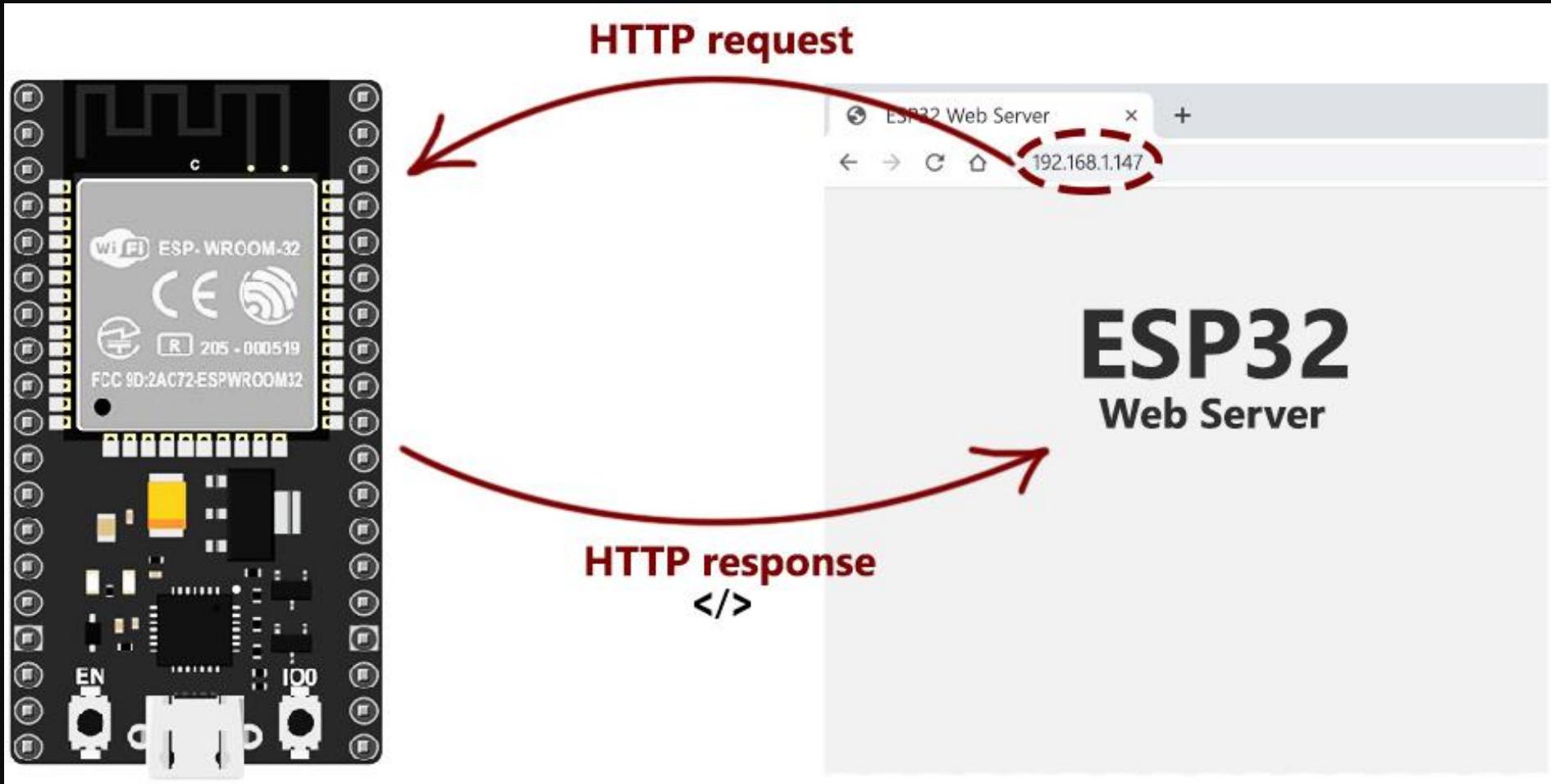
Pelatihan ESP+MIT



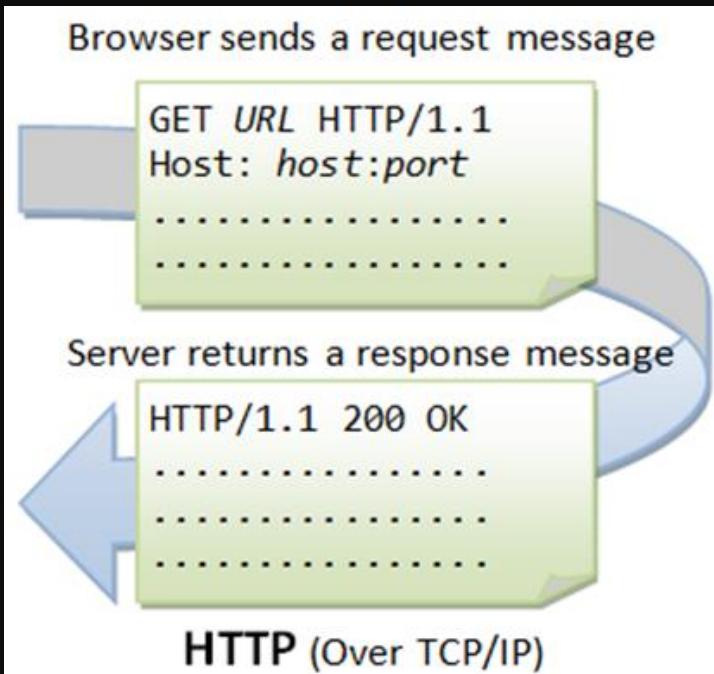
HTTP



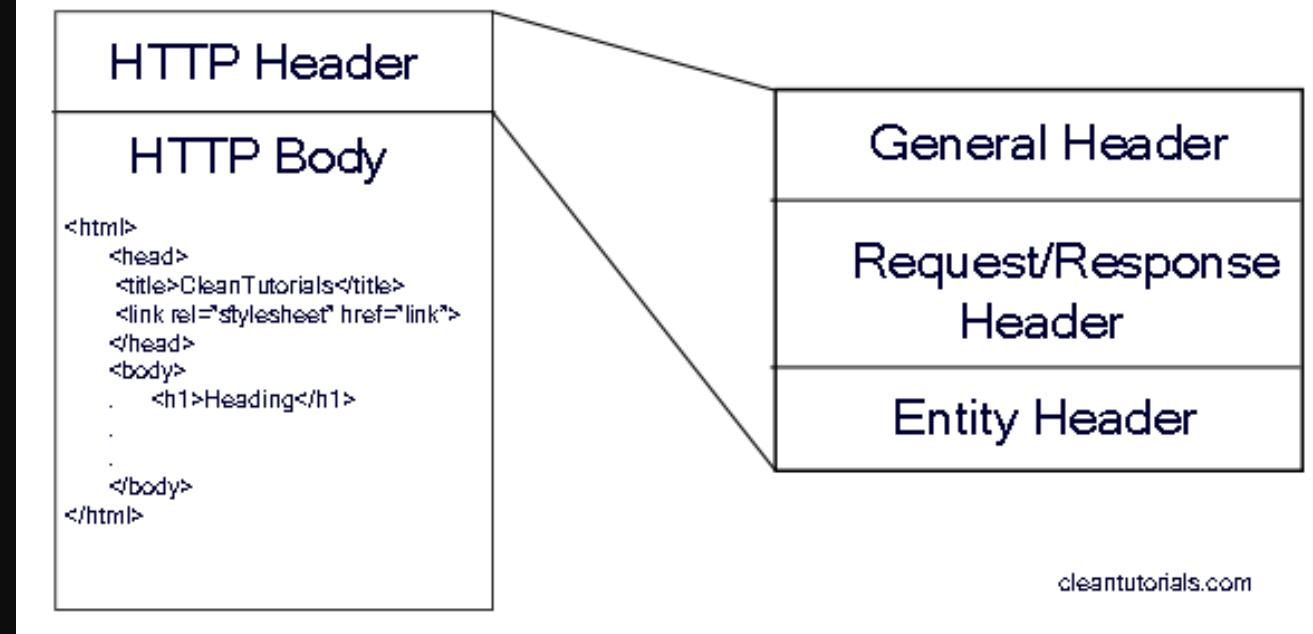
Protokol HTTP



Header HTTP



HTTP Request/response



HTTP pada Arduino IDE

```
void loop() {  
    WiFiClient client = server.available();  
  
    if (client) {  
  
        Serial.println("New Client.");  
  
        String currentLine = "";  
  
        while (client.connected()) {  
  
            if (client.available()) {  
  
                char c = client.read();  
  
                Serial.write(c);  
  
                if (c == '\n') {  
  
                    if (currentLine.length() == 0) {  
  
                        client.println("HTTP/1.1 200 OK");  
                        client.println("Content-type:text/html");  
                        client.println();  
                        client.println(); break;  
                    }  
                }  
            }  
        }  
    }  
}
```



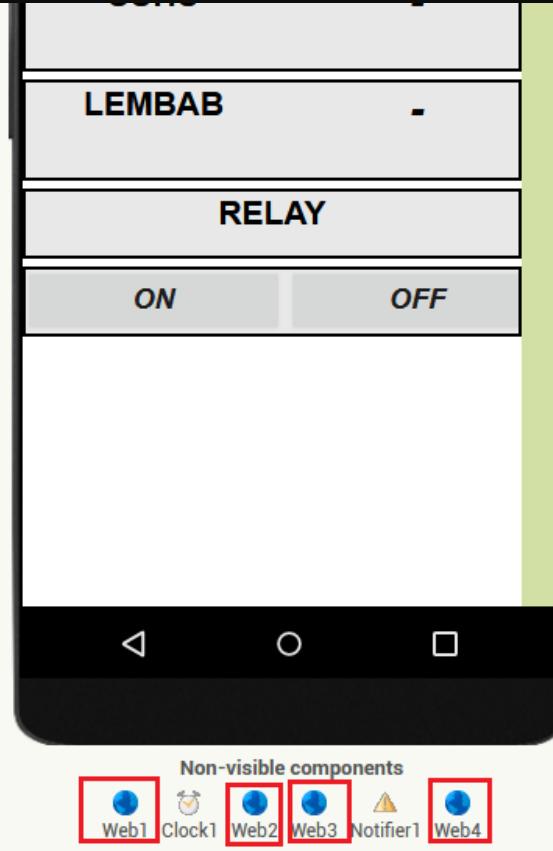
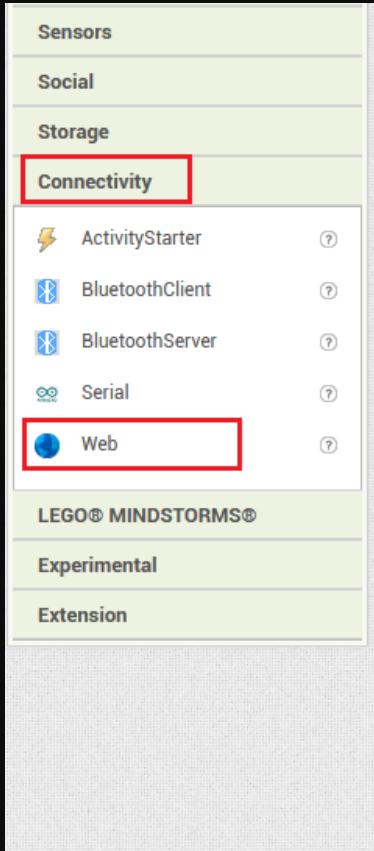
```
else {currentLine = ""; }  
  
} else if (c != '\r') { currentLine += c; }  
  
if (currentLine.endsWith("GET /OFF")) {  
  
    digitalWrite(led, LOW);  
}  
  
if (currentLine.endsWith("GET /ON")) {  
  
    digitalWrite(led, HIGH);  
}  
}  
}  
}  
client.stop();  
Serial.println("Client disconnected.");  
Serial.println("");  
}  
}
```



ESP - MIT



MIT Connectivity



```

when Button1.Click
do set Web3.Url to "http://192.168.43.139/ON"
call Web3.Get

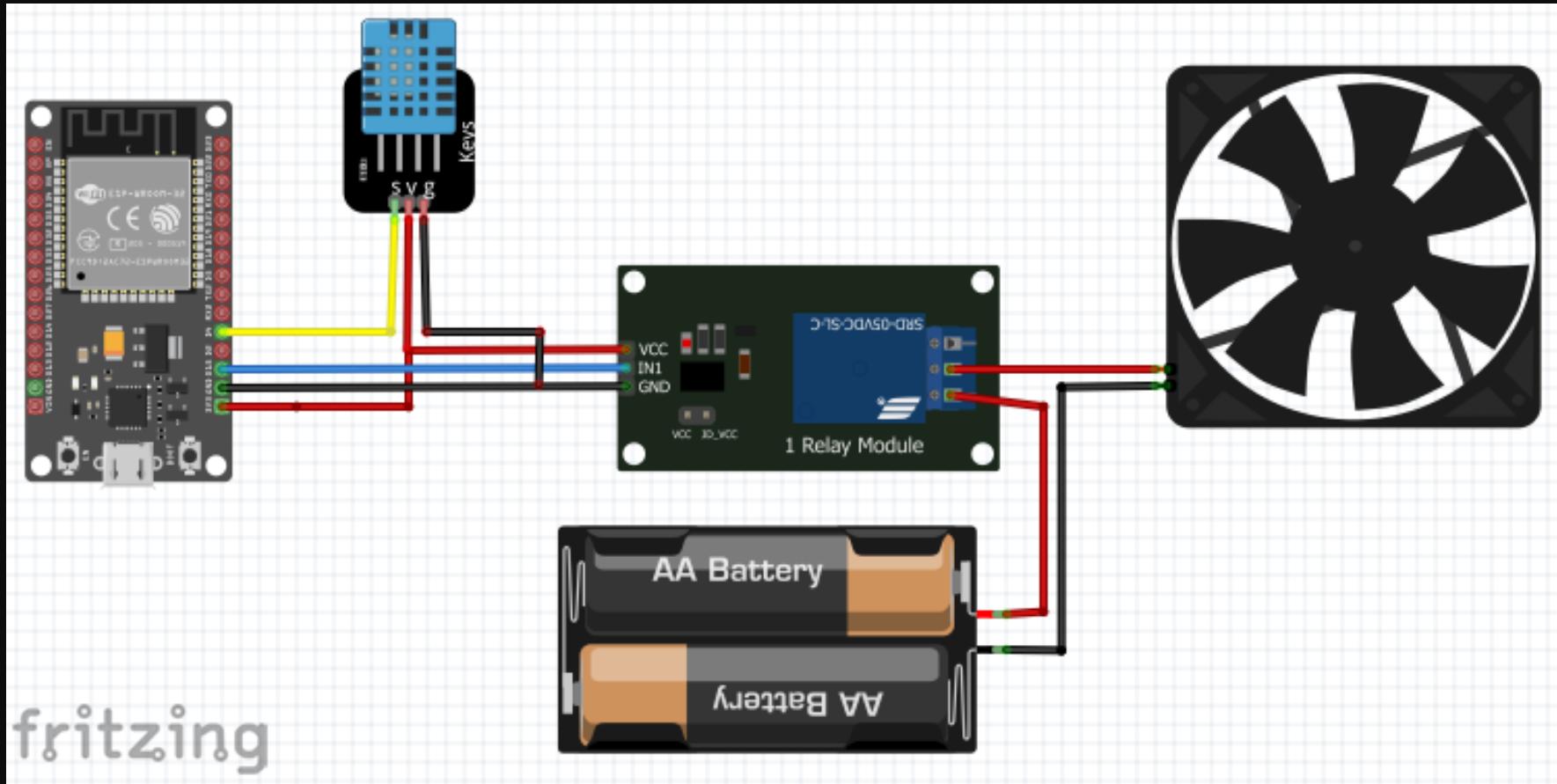
when Button2.Click
do set Web3.Url to "http://192.168.43.139/OFF"
call Web3.Get
  
```



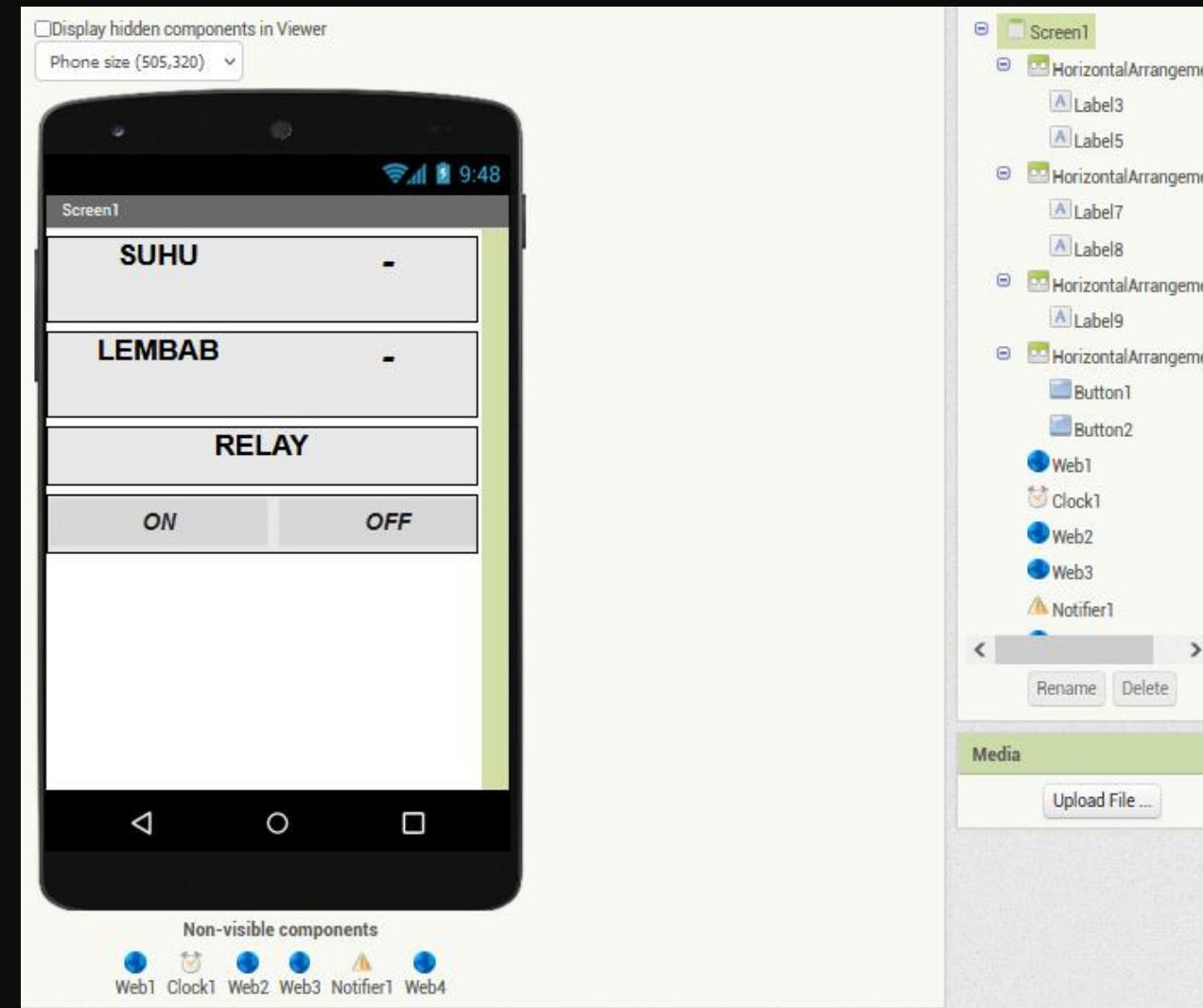
Contoh Proyek



Kontrol Relay & Monitor Udara



Layout MIT



The image shows the MIT App Inventor interface. On the left is a smartphone screen displaying a user interface with three text boxes labeled "SUHU", "LEMBAB", and "RELAY", followed by an "ON" button and an "OFF" button. At the bottom are navigation icons. Below the phone are labels for "Non-visible components": Web1, Clock1, Web2, Web3, Notifier1, and Web4. On the right is the component palette, which lists the following components under "Screen1":

- HorizontalArrangement1 (with Label3, Label5)
- HorizontalArrangement2 (with Label7, Label8)
- HorizontalArrangement3 (with Label9)
- HorizontalArrangement4 (with Button1, Button2)
- Web1
- Clock1
- Web2
- Web3
- Notifier1

At the bottom of the palette are "Rename" and "Delete" buttons.



Block Coding



```

when [Clock1 v].Timer
do set Web1 v .Url to "http://192.168.43.139/T"
call Web1 v .Get
set Web2 v .Url to "http://192.168.43.139/H"
call Web2 v .Get
set Web4 v .Url to "http://192.168.43.139/W"
call Web4 v .Get

when [Web1 v].GotText
url responseCode responseType responseContent
do if get responseCode = 200
then set Label5 v .Text to get responseContent

when [Button1 v].Click
do set Web3 v .Url to "http://192.168.43.139/ON"
call Web3 v .Get

when [Button2 v].Click
do set Web3 v .Url to "http://192.168.43.139/OFF"
call Web3 v .Get

```

```

when [Web4 v].GotText
url responseCode responseType responseContent
do if get responseCode = 200
then call Notifier1 v .ShowTextDialog
message "ALERT!!"
title "ALERT!!"
cancelable true
else if get responseCode = 404
then

when [Web2 v].GotText
url responseCode responseType responseContent
do if get responseCode = 200
then set Label8 v .Text to get responseContent

```

Coding ESP



```
WiFiClient client = server.available();

if (client) {
    Serial.println("New Client.");
    String currentLine = "";
    while (client.connected()) {
        if (client.available()) {
            char c = client.read();
            Serial.write(c);
            if (c == '\n') {
                if (currentLine.length() == 0) {
                    client.println("HTTP/1.1 200 OK");
                    client.println("Content-type:text/html");
                    client.println(); break;
                } else { currentLine = ""; }
            } else if (c != '\r') { currentLine += c; }
        }
    }
}
```



```
if (currentLine.endsWith("GET /ON")) {
    digitalWrite(relay, LOW);
}

if (currentLine.endsWith("GET /OFF")) {
    digitalWrite(relay, HIGH);
}
```

Coding ESP

A cartoon robot character with a white body, red accents, and question marks on its ears, stands to the left of the first code box.

```
if (currentLine.endsWith("GET /T")) {  
    client.println("HTTP/1.1 200 OK");  
    client.println("Content-type:text/html");  
    client.println();  
    client.print(t); client.println(" °C");  
    client.println(); break;  
}  
  
if (currentLine.endsWith("GET /H")) {  
    client.println("HTTP/1.1 200 OK");  
    client.println("Content-type:text/html");  
    client.println();  
    client.print(h); client.println(" %");  
    client.println(); break;  
}
```

```
if (currentLine.endsWith("GET /W")) {  
    if (h > 90) {  
        client.println("HTTP/1.1 200 OK");  
        client.println("Content-type:text/html");  
        client.println();break;  
    } else {  
        client.println("HTTP/1.1 404 NOT FOUND");  
        client.println("Content-type:text/html");  
        client.println();break;  
    }  
}  
}  
  
client.stop();
```



THANK YOU !

