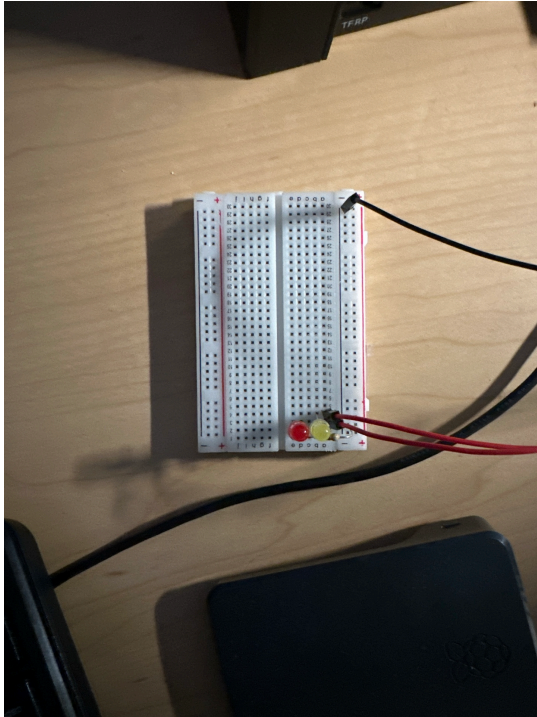


Aaron Perkel
CS2210
10/20/23
Lab 05



```
1 from flask import Flask, render_template
2 import RPi.GPIO as GPIO
3 import time
4
5 RED_PIN = 18
6 YELLOW_PIN = 15
7
8 GPIO.setmode(GPIO.BCM)
9 GPIO.setwarnings(False)
10 GPIO.setup(RED_PIN, GPIO.OUT)
11 GPIO.setup(YELLOW_PIN, GPIO.OUT)
12
13 app = Flask(__name__)
14                                     (function) methods: Any
15 @app.route("/led_on_r", methods=["POST"])
16 def led_on_r():
17     print("LED on")
18     GPIO.output(RED_PIN, GPIO.HIGH)
19     return "ok"
20
21 @app.route("/led_off_r", methods=["POST"])
22 def led_off_r():
23     print("LED off")
24     GPIO.output(RED_PIN, GPIO.LOW)
25     return "ok"
26
27 @app.route("/led_on_y", methods=["POST"])
28 def led_on_y():
29     print("LED on")
30     GPIO.output(YELLOW_PIN, GPIO.HIGH)
31     return "ok"
32
33 @app.route("/led_off_y", methods=["POST"])
34 def led_off_y():
35     print("LED off")
36     GPIO.output(YELLOW_PIN, GPIO.LOW)
37     return "ok"
38
39 @app.route("/", methods=["GET"])
40 def home():
41     return render_template("button.html", title="Button", name="Aaron Perkel")
42
```

app.py

```
Users > aaronperkel > Desktop > <> button.html > ...
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <link rel="shortcut icon" href="{{ url_for('static', filename='favicon.ico') }}">
6     <title>{{title}}</title>
7 </head>
8 <body>
9
10     <h1>{{name}}'s LED Control</h1>
11
12     <button id="led_button">Red LED On</button>
13     <button id="led_button2">Yellow LED On</button>
14
15     <script src="https://code.jquery.com/jquery-3.5.1.min.js"></script>
16     <script src="/static/button.js"></script>
17 </body>
18 </html>
19
```

button.html

```

1  var button = $("#led_button");
2  button.click(function() {
3      console.log(button.text());
4      if (button.text() === "Red LED On") {
5          $.ajax({
6              url: "/led_on_r",
7              type: "post",
8              success: function(response) {
9                  console.log(response);
10                 button.text("Red LED Off");
11             }
12         });
13     } else {
14         $.ajax({
15             url: "/led_off_r",
16             type: "post",
17             success: function() {
18                 button.text("Red LED On");
19             }
20         });
21     }
22 });
23
24 var button2 = $("#led_button2");
25 button2.click(function() {
26     console.log(button2.text());
27     if (button2.text() === "Yellow LED On") {
28         $.ajax({
29             url: "/led_on_y",
30             type: "post",
31             success: function(response) {
32                 console.log(response);
33                 button2.text("Yellow LED Off");
34             }
35         });
36     } else {
37         $.ajax({
38             url: "/led_off_y",
39             type: "post",
40             success: function() {
41                 button2.text("Yellow LED On");
42             }
43         });
44     }
45 });
46

```

button.js