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#------------------------------------------------------
# Annexe 2 : commander une LED à partir d'une page web
#------------------------------------------------------



"""
Auteur :
Date :
Rôle :
    - Connexion à une borne Wifi (partage de connexion sur téléphone)
    - Afficher dans la console les paramètres réseau : adresse IP de la carte
    - Serveur web : afficher une page sur le client (téléphone ou tablette)
    - Commander une LED à l'aide de la page web
    - Afficher l'état de la LED dans la page web.

Version 1 :
"""


try:
  import usocket as socket
except:
  import socket

from machine import Pin
import network

import esp
esp.osdebug(None)

import gc
gc.collect()

"""
ssid = 'REPLACE_WITH_YOUR_SSID'
password = 'REPLACE_WITH_YOUR_PASSWORD'
"""
ssid = 'à_modifier'
password = 'a_modifier'

station = network.WLAN(network.STA_IF)

station.active(True)
station.connect(ssid, password)

while station.isconnected() == False:
  pass

print('Connection successful')
print(station.ifconfig())

led_in = Pin(2, Pin.OUT)
led_ext = Pin(26, Pin.OUT)







def web_page():
  if led_in.value() == 1:
    gpio_state="ON"
  else:
    gpio_state="OFF"

  html = """<html><head> <title>ESP Web Server</title> <meta name="viewport"
content="width=device-width, initial-scale=1">
  <link rel="icon" href="data:,"> <style>html{font-family: Helvetica; display:inline-block;
margin: 0px auto; text-align: center;}
```

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  h1{color: #0F3376; padding: 2vh;}p{font-size: 1.5rem;}.button{display: inline-block; background-color: #e7bd3b; border: none;
  border-radius: 4px; color: white; padding: 16px 40px; text-decoration: none; font-size: 30px; margin: 2px; cursor: pointer;}
  .button2{background-color: #4286f4;}</style></head><body> <h1>ESP Web Server</h1>
  <p>GPIO state: <strong>""" + gpio_state + """</strong></p><p><a href="/?led=on"><button class="button">ON</button></a></p>
  <p><a href="/?led=off"><button class="button button2">OFF</button></a></p></body></html>"""
  return html

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 80))
s.listen(5)

while True:
    print("\n---- Lire la requête et envoyer la page ----")
    conn, addr = s.accept()
    print('Got a connection from %s' % str(addr))
    request = conn.recv(1024)
    request = str(request)
    print('Content = %s' % request)
    led_on = request.find('/?led=on')
    led_off = request.find('/?led=off')
    if led_on == 6:
        print('LED ON')
        led_in.value(1)
        led_ext.value(1)
    if led_off == 6:
        print('LED OFF')
        led_in.value(0)
        led_ext.value(0)
    response = web_page()
    conn.send('HTTP/1.1 200 OK\n')
    conn.send('Content-Type: text/html\n')
    conn.send('Connection: close\n\n')
    conn.sendall(response)
    conn.close()
```