#! /usr/bin/python3

import cgi

import cgitb

import os

import passwords

import json

import MySQLdb

cgitb.enable()

if 'PATH\_INFO' in os.environ:

path = os.environ['PATH\_INFO']

else:

path = ""

if path == "":

print('Status: 302 Redirect')

print('Location: http://100.27.20.36/cgi-bin/lab5.cgi/home')

elif path =="/home":

print('Content-Type: text/html')

print("Status: 200 OK")

print()

print('''<html><head><title>Home</title>

</head>

<h1> Home </h1>

<body>

<a href="/cgi-bin/lab5.cgi/view">View People</a>

<br>

<a href="/cgi-bin/lab5.cgi/person">Add a new Person</a>

</body>

</html>''')

elif path == "/person":

print("Content-Type: text/html")

print("Status: 200 OK")

print()

print('''<html><head>

</head><body><h1>Add Person</h1>

<form action="http://100.27.20.36/cgi-bin/lab5.cgi/add" method="POST">

Person Name <input type="text" name="name"><br>

Age <input type="text" name="age"><br>

City <input type="text" name="city"><br>

<input type="submit"></form>

</form><br><p>Search for ID<br><form action="/cgi-bin/lab5.cgi/get" method="GET">

<input type=number name="id"><br>

<input type=submit></form>

</body>

</html>''')

elif path =="/add":

if "REQUEST\_METHOD" in os.environ and os.environ["REQUEST\_METHOD"] == "POST":

form = cgi.FieldStorage()

conn = MySQLdb.connect(host = passwords.SQL\_HOST, user = passwords.SQL\_USER, passwd = passwords.SQL\_PASSWD, db = "coleshearer")

name = form['name'].value

age = form['age'].value

city = form['city'].value

cursor = conn.cursor()

cursor.execute("INSERT INTO lab5(name, age, city) VALUES (%s,%s,%s)", (name,age,city))

new\_id = cursor.lastrowid

cursor.close()

conn.commit()

print('Status: 302 Redirect')

print('Location: http://100.27.20.36/cgi-bin/lab5.cgi/view')

print()

elif path =="/get":

if "REQUEST\_METHOD" in os.environ and os.environ["REQUEST\_METHOD"] == "GET":

print('Content-Type: application/json')

print("Status: 200 OK")

print()

form = cgi.FieldStorage()

conn = MySQLdb.connect(host = passwords.SQL\_HOST, user = passwords.SQL\_USER, passwd = passwords.SQL\_PASSWD, db = "coleshearer")

ID = form['id'].value

cursor = conn.cursor()

cursor.execute('SELECT \* FROM lab5 WHERE id=%s;', (ID,))

results = cursor.fetchall()

cursor.close()

test = []

fields = ['ID', 'Name', 'Age', 'City']

for record in results:

entry = {}

num = 0

for row in record:

num = num % len(fields)

field = fields[num]

entry[field] = row

num += 1

test.append(entry)

test\_json = json.dumps(test, indent=2)

print(test\_json)

elif path == "/view":

print('Content-Type: application/json')

print("Status: 200 OK")

print()

conn = MySQLdb.connect(host = passwords.SQL\_HOST, user = passwords.SQL\_USER, passwd = passwords.SQL\_PASSWD, db = "coleshearer")

cursor=conn.cursor()

cursor.execute('SELECT \* FROM lab5;')

results = cursor.fetchall()

test = []

fields = ['ID', 'Name', 'Age', 'City']

for record in results:

entry = {}

num = 0

for row in record:

num = num % len(fields)

field = fields[num]

entry[field] = row

num += 1

test.append(entry)

test\_json = json.dumps(test, indent=2)

print(test\_json)

cursor.close()

else:

print("Content-Type: text/html")

print("Status: 200 OK")

print()

print('''<html>

<head><title>Home</title>

</head>

<body><center>Invalid path: %s</center>

<a href="/cgi-bin/lab5.cgi/view">View People</a>

<br>

<a href="/cgi-bin/lab5.cgi/home">Go Home</a>

</body>

</html>''' % (path,))