from flask import Flask, render\_template, request

import sqlite3

import random

app = Flask(\_\_name\_\_)

def create\_db():

conn = sqlite3.connect('exam\_seating.db')

cursor = conn.cursor()

cursor.execute('''CREATE TABLE IF NOT EXISTS students (

id INTEGER PRIMARY KEY,

name TEXT,

roll\_number TEXT,

department TEXT)

''')

cursor.execute('''CREATE TABLE IF NOT EXISTS seating (

id INTEGER PRIMARY KEY,

roll\_number TEXT,

hall TEXT,

seat\_number INTEGER)

''')

conn.commit()

conn.close()

@app.route('/')

def index():

return render\_template('index.html')

@app.route('/add\_students', methods=['POST'])

def add\_students():

students = request.form['students'].split('\n')

conn = sqlite3.connect('exam\_seating.db')

cursor = conn.cursor()

for student in students:

name, roll, dept = student.split(',')

cursor.execute("INSERT INTO students (name, roll\_number, department) VALUES (?, ?, ?)", (name, roll, dept))

conn.commit()

conn.close()

return "Students Added Successfully!"

@app.route('/allocate\_seats')

def allocate\_seats():

conn = sqlite3.connect('exam\_seating.db')

cursor = conn.cursor()

cursor.execute("SELECT roll\_number FROM students")

students = cursor.fetchall()

halls = ['Hall A', 'Hall B', 'Hall C']

random.shuffle(students)

cursor.execute("DELETE FROM seating")

for index, student in enumerate(students):

hall = halls[index % len(halls)]

seat\_number = (index % 30) + 1

cursor.execute("INSERT INTO seating (roll\_number, hall, seat\_number) VALUES (?, ?, ?)", (student[0], hall, seat\_number))

conn.commit()

conn.close()

return "Seating Arrangement Generated!"

@app.route('/view\_seating')

def view\_seating():

conn = sqlite3.connect('exam\_seating.db')

cursor = conn.cursor()

cursor.execute("SELECT \* FROM seating")

seating\_data = cursor.fetchall()

conn.close()

return render\_template('seating.html', seating\_data=seating\_data)

if \_\_name\_\_ == '\_\_main\_\_':

create\_db()

app.run(debug=True)