import sqlite3

def connect():

conn = sqlite3.connect('hostel.db')

return conn

def create\_tables():

conn = connect()

cursor = conn.cursor()

cursor.execute('''

CREATE TABLE IF NOT EXISTS students (

id TEXT PRIMARY KEY,

name TEXT,

age TEXT,

room TEXT

)

''')

cursor.execute('''

CREATE TABLE IF NOT EXISTS rooms (

room\_no TEXT PRIMARY KEY,

capacity TEXT

)

''')

cursor.execute('''

CREATE TABLE IF NOT EXISTS payments (

payment\_id INTEGER PRIMARY KEY AUTOINCREMENT,

student\_id TEXT,

amount TEXT,

date TEXT

)

''')

conn.commit()

conn.close()

# Student Functions

def add\_student(id, name, age, room):

conn = connect()

cursor = conn.cursor()

cursor.execute('INSERT INTO students (id, name, age, room) VALUES (?, ?, ?, ?)', (id, name, age, room))

conn.commit()

conn.close()

def view\_students():

conn = connect()

cursor = conn.cursor()

cursor.execute('SELECT \* FROM students')

rows = cursor.fetchall()

conn.close()

return rows

def delete\_student(id):

conn = connect()

cursor = conn.cursor()

cursor.execute('DELETE FROM students WHERE id=?', (id,))

conn.commit()

conn.close()

def search\_student(keyword):

conn = connect()

cursor = conn.cursor()

cursor.execute('SELECT \* FROM students WHERE id LIKE ? OR name LIKE ? OR room LIKE ?',

('%' + keyword + '%', '%' + keyword + '%', '%' + keyword + '%'))

rows = cursor.fetchall()

conn.close()

return rows

# Room Functions

def add\_room(room\_no, capacity):

conn = connect()

cursor = conn.cursor()

cursor.execute('INSERT INTO rooms (room\_no, capacity) VALUES (?, ?)', (room\_no, capacity))

conn.commit()

conn.close()

def view\_rooms():

conn = connect()

cursor = conn.cursor()

cursor.execute('SELECT \* FROM rooms')

rows = cursor.fetchall()

conn.close()

return rows

def delete\_room(room\_no):

conn = connect()

cursor = conn.cursor()

cursor.execute('DELETE FROM rooms WHERE room\_no=?', (room\_no,))

conn.commit()

conn.close()

def search\_room(keyword):

conn = connect()

cursor = conn.cursor()

cursor.execute('SELECT \* FROM rooms WHERE room\_no LIKE ?', ('%' + keyword + '%',))

rows = cursor.fetchall()

conn.close()

return rows

# Payment Functions

def add\_payment(student\_id, amount, date):

conn = connect()

cursor = conn.cursor()

cursor.execute('INSERT INTO payments (student\_id, amount, date) VALUES (?, ?, ?)', (student\_id, amount, date))

conn.commit()

conn.close()

def view\_payments():

conn = connect()

cursor = conn.cursor()

cursor.execute('SELECT \* FROM payments')

rows = cursor.fetchall()

conn.close()

return rows

def delete\_payment(payment\_id):

conn = connect()

cursor = conn.cursor()

cursor.execute('DELETE FROM payments WHERE payment\_id=?', (payment\_id,))

conn.commit()

conn.close()

def search\_payment(keyword):

conn = connect()

cursor = conn.cursor()

cursor.execute('SELECT \* FROM payments WHERE student\_id LIKE ?', ('%' + keyword + '%',))

rows = cursor.fetchall()

conn.close()

return rows