# db\_handler.py

import sqlite3

# Connect to SQLite database (or create it)

def connect\_db():

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

return conn

# Create tables if they don't exist

def create\_tables():

conn = connect\_db()

cursor = conn.cursor()

cursor.execute('''

CREATE TABLE IF NOT EXISTS students (

id INTEGER PRIMARY KEY AUTOINCREMENT,

name TEXT NOT NULL,

age INTEGER,

room\_no TEXT

)

''')

cursor.execute('''

CREATE TABLE IF NOT EXISTS rooms (

id INTEGER PRIMARY KEY AUTOINCREMENT,

room\_no TEXT NOT NULL UNIQUE,

capacity INTEGER

)

''')

cursor.execute('''

CREATE TABLE IF NOT EXISTS payments (

id INTEGER PRIMARY KEY AUTOINCREMENT,

student\_id INTEGER,

amount REAL,

date TEXT,

FOREIGN KEY(student\_id) REFERENCES students(id)

)

''')

conn.commit()

conn.close()

# Add, View, Update, Delete for Students

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

conn = connect\_db()

cursor = conn.cursor()

cursor.execute("INSERT INTO students (name, age, room\_no) VALUES (?, ?, ?)", (name, age, room\_no))

conn.commit()

conn.close()

def view\_students():

conn = connect\_db()

cursor = conn.cursor()

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

data = cursor.fetchall()

conn.close()

return data

def delete\_student(student\_id):

conn = connect\_db()

cursor = conn.cursor()

cursor.execute("DELETE FROM students WHERE id=?", (student\_id,))

conn.commit()

conn.close()

# Add, View, Update, Delete for Rooms

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

conn = connect\_db()

cursor = conn.cursor()

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

conn.commit()

conn.close()

def view\_rooms():

conn = connect\_db()

cursor = conn.cursor()

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

data = cursor.fetchall()

conn.close()

return data

def delete\_room(room\_id):

conn = connect\_db()

cursor = conn.cursor()

cursor.execute("DELETE FROM rooms WHERE id=?", (room\_id,))

conn.commit()

conn.close()

# Add, View Payments

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

conn = connect\_db()

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\_db()

cursor = conn.cursor()

cursor.execute('''

SELECT payments.id, students.name, payments.amount, payments.date

FROM payments

JOIN students ON payments.student\_id = students.id

''')

data = cursor.fetchall()

conn.close()

return data