Create database propertydearalers

Branch(branchno, street, city, postcode)

Staff(Staffno, fname, lname, position, Sex, DOB, salary, branchno)

PropertyforRent(propertyNo, street, city, Postcode,Type, rooms,rent,ownerno,staffno, branchno)

Client(CUID, fName, lName, Rent)

PrivateOwner(OUID, fName, lName, address)

1. Insert the data as shown in the above tables
2. Update the lname of the staff with staffno. 106 to shinde
3. Delete the branch with postcode 411041
4. List the emplyoyee who have atleast 2 A's in their name.
5. List the maximum salary from each branch of the staff members from highest to lowest
6. Find the clients who have also owners
7. Find the owners who are not clients
8. Find the owners who have C as the third alphabet in their name

Step 1: Create Database and Tables

1. Create Database

sql

Copy code

CREATE DATABASE propertydealers;

USE propertydealers;

2. Create Tables

sql

Copy code

-- Create Branch table

CREATE TABLE Branch (

    branchno INT PRIMARY KEY,

    street VARCHAR(100) NOT NULL,

    city VARCHAR(100) NOT NULL,

    postcode VARCHAR(10) NOT NULL

);

```sql
-- Create Staff table
CREATE TABLE Staff (
    Staffno INT PRIMARY KEY,
    fname VARCHAR(100) NOT NULL,
    lname VARCHAR(100) NOT NULL,
    position VARCHAR(50) NOT NULL,
    Sex CHAR(1) CHECK (Sex IN ('M', 'F')),
    DOB DATE NOT NULL,
    salary DECIMAL(10, 2) CHECK (salary >= 0),
    branchno INT,
    FOREIGN KEY (branchno) REFERENCES Branch(branchno)
);

-- Create PropertyforRent table
CREATE TABLE PropertyforRent (
    propertyNo INT PRIMARY KEY,
    street VARCHAR(100) NOT NULL,
    city VARCHAR(100) NOT NULL,
    postcode VARCHAR(10) NOT NULL,
    Type VARCHAR(50) NOT NULL,
    rooms INT CHECK (rooms > 0),
    rent DECIMAL(10, 2) CHECK (rent >= 0),
    ownerno INT,
    staffno INT,
    branchno INT,
    FOREIGN KEY (ownerno) REFERENCES PrivateOwner(OUID),
    FOREIGN KEY (staffno) REFERENCES Staff(Staffno),
    FOREIGN KEY (branchno) REFERENCES Branch(branchno)
);

-- Create Client table
```

```sql
CREATE TABLE Client (

    CUID INT PRIMARY KEY,

    fName VARCHAR(100) NOT NULL,

    lName VARCHAR(100) NOT NULL,

    Rent DECIMAL(10, 2) CHECK (Rent >= 0)

);


-- Create PrivateOwner table
CREATE TABLE PrivateOwner (

    OUID INT PRIMARY KEY,

    fName VARCHAR(100) NOT NULL,

    lName VARCHAR(100) NOT NULL,

    address VARCHAR(255) NOT NULL

);
```

Step 2: Insert Data into Tables

Here's an example of how to insert data into the tables. Make sure to adjust the values according to your requirements.

sql

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```sql
-- Insert data into Branch table
INSERT INTO Branch (branchno, street, city, postcode) VALUES

(1, 'Main St', 'Pune', '411041'),

(2, 'Elm St', 'Pune', '411042'),

(3, 'Oak St', 'Mumbai', '400001');


-- Insert data into Staff table
INSERT INTO Staff (Staffno, fname, lname, position, Sex, DOB, salary, branchno) VALUES

(101, 'Amit', 'Patel', 'Manager', 'M', '1985-06-15', 50000, 1),

(102, 'Sita', 'Sharma', 'Sales', 'F', '1990-02-20', 40000, 1),

(103, 'Rahul', 'Kumar', 'Sales', 'M', '1988-03-30', 45000, 2),

(104, 'Neha', 'Singh', 'Executive', 'F', '1992-11-05', 30000, 3),
```

(105, 'Vijay', 'Joshi', 'Executive', 'M', '1989-07-25', 32000, 2),

(106, 'Rani', 'Deshmukh', 'Executive', 'F', '1993-04-12', 28000, 1);

-- Insert data into PrivateOwner table

INSERT INTO PrivateOwner (OUID, fName, lName, address) VALUES

(201, 'Ajay', 'Verma', '1234 Elm St, Pune'),

(202, 'Riya', 'Ghosh', '5678 Oak St, Mumbai'),

(203, 'Deepak', 'Sharma', '7890 Pine St, Pune');

-- Insert data into PropertyforRent table

INSERT INTO PropertyforRent (propertyNo, street, city, postcode, Type, rooms, rent, ownerno, staffno, branchno) VALUES

(301, '1st Ave', 'Pune', '411041', 'Apartment', 2, 15000, 201, 101, 1),

(302, '2nd Ave', 'Pune', '411041', 'House', 3, 25000, 202, 102, 1),

(303, '3rd Ave', 'Mumbai', '400001', 'Apartment', 1, 12000, 203, 103, 3);

-- Insert data into Client table

INSERT INTO Client (CUID, fName, lName, Rent) VALUES

(401, 'Aditi', 'Kumar', 15000),

(402, 'Raj', 'Patel', 25000),

(403, 'Sneha', 'Ghosh', 12000);

Step 3: Perform SQL Operations

    1. **Update the lname of the staff with staffno 106 to 'Shinde':**

sql

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UPDATE Staff SET lname = 'Shinde' WHERE Staffno = 106;

    2. **Delete the branch with postcode 411041:**

sql

Copy code

DELETE FROM Branch WHERE postcode = '411041';

    3. **List the employees who have at least 2 'A's in their name:**

sql

Copy code

```sql
SELECT * FROM Staff
WHERE (fname LIKE '%A%' AND LENGTH(fname) - LENGTH(REPLACE(fname, 'A', '')) >= 2)
  OR (lname LIKE '%A%' AND LENGTH(lname) - LENGTH(REPLACE(lname, 'A', '')) >= 2);
```

4. **List the maximum salary from each branch of the staff members from highest to lowest:**

sql

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```sql
SELECT branchno, MAX(salary) AS MaxSalary
FROM Staff
GROUP BY branchno
ORDER BY MaxSalary DESC;
```

5. **Find the clients who are also owners:**

sql

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```sql
SELECT DISTINCT c.*
FROM Client c
JOIN PrivateOwner p ON c.fName = p.fName AND c.lName = p.lName;
```

6. **Find the owners who are not clients:**

sql

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```sql
SELECT p.*
FROM PrivateOwner p
LEFT JOIN Client c ON p.fName = c.fName AND p.lName = c.lName
WHERE c.CUID IS NULL;
```

7. **Find the owners who have 'C' as the third alphabet in their name:**

sql

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```sql
SELECT *
FROM PrivateOwner
```

WHERE SUBSTRING(fName, 3, 1) = 'C' OR SUBSTRING(lName, 3, 1) = 'C';

Summary

The above SQL statements cover the creation of a database and tables, data insertion, and various queries based on the requirements provided. If you need any more modifications or explanations, feel free to ask!