DBMS Skilling-5

Name: B.V.AVINASH CHOWDARY

Reg No: 2000031540

<u>IN-LAB</u>

Q. Implement SQL Queries on Case Study (PROPERTY RENTAL INFORMATION SYSTEM)

1. Create tables with the required constraints for the given case study

2. Insert 10 records into the created tables

```
postgres=# select * from staff;
 staff_no |  name   |  salary  |   city    |     state      |   phone    |       email
----------+---------+----------+-----------+----------------+------------+--------------------
 50012    | Surya   | 45000.00 | Hyderabad | Telangana      | 6074331464 | sj@gmail.com
 50013    | raju    | 50000.00 | Banglore  | Karnataka      | 6158984565 | raju@yahoo.co.in
 50014    | virat   | 55000.00 | Vijaywada | Andhra Pradesh | 6243637666 | v@raju.com
 50015    | laya    | 60000.00 | chennai   | Tamil nadu     | 6328290767 | pooja@tcs.com
 50016    | pooja   | 65000.00 | kochi     | kerala         | 6412943868 | ab@gmail.com
 50017    | anil    | 70000.00 | Hyderabad | Telangana      | 6497596969 | anil@gmail.com
 50018    | sunil   | 75000.00 | Banglore  | Karnataka      | 6582250070 | sunil@gmail.com
 50019    | rohit   | 35000.00 | Vijaywada | Andhra Pradesh | 6666903171 | rohit@gmail.com
 50020    | sowmya  | 42000.00 | chennai   | Tamil nadu     | 6751556272 | sowmya@gmail.com
 50021    | robert  | 90000.00 | mumbai    | maharastra     | 6836209373 | robert@gmail.com
 50022    | mujahed | 95000.00 | pune      | maharastra     | 6920862474 | mujahed@gmail.com
(11 rows)

postgres=# select * from branch;
 branch_no |   city    |     state      | manager | branch_phone |     branch_email
-----------+-----------+----------------+---------+--------------+----------------------
      6622 | Hyderabad | Telangana      | 50017   |   8074337464 | Hyderabad@gmail.com
      6623 | Banglore  | Karnataka      | 50018   |   8075337465 | banglore@gmail.com
      6624 | Vijaywada | Andhra Pradesh | 50014   |   8076337466 | ap@gmail.com
      6625 | chennai   | Tamil nadu     | 50015   |   8077337467 | tn@gmail.com
      6626 | kochi     | kerala         | 50016   |   8078337468 | kochi@gmail.com
(5 rows)
```

```
postgres=# select * from owner;
 owner_no |  name   |  type_of_business  |   city    |     state      |   phone    |        email
----------+---------+--------------------+-----------+----------------+------------+--------------------
     8892 | shiva   | private employee   | Hyderabad | Telangana      | 6074331464 | shiva@gmail.com
     8893 | iswhar  | software engineer  | Banglore  | Karnataka      | 6158984565 | ish@gmail.com
     8894 | gopi    | private employee   | Vijaywada | Andhra Pradesh | 6243637666 | gopi@gmail.com
     8895 | gopal   | clerk              | chennai   | Tamil nadu     | 6328290767 | gopal@gmail.com
     8896 | sneha   | jr journalist      | kochi     | kerala         | 6412943868 | sneha@gmail.com
     8897 | latha   | teacher            | Hyderabad | Telangana      | 6497596969 | latha@gmail.com
     8898 | gorge   | coal mining ceo    | Banglore  | Karnataka      | 6582250070 | gorge@gmail.com
     8899 | samuel  | business           | Vijaywada | Andhra Pradesh | 6666903171 | samuel@gmail.com
     8900 | roberts | business           | chennai   | Tamil nadu     | 6751556272 | roberts@gmail.com
     8901 | sonu    | software engineer  | mumbai    | maharastra     | 6836209373 | sonu@gmail.com
     8902 | raju    | software engineer  | pune      | maharastra     | 6920862474 | raju@gmail.com
(11 rows)

postgres=# select * from renter;
 renter_no |  name   |  type_of_business  |   city    |     state      |   phone    |        email
-----------+---------+--------------------+-----------+----------------+------------+--------------------
      9802 | ram     | private employee   | Hyderabad | Telangana      | 6074331464 | ram@gmail.com
      9803 | sham    | software engineer  | Banglore  | Karnataka      | 6158984565 | sham@gmail.com
      9804 | sundhar | private employee   | Vijaywada | Andhra Pradesh | 6243637666 | sindhar@gmail.com
      9805 | raghu   | clerk              | chennai   | Tamilnadu      | 6328290767 | raghu@gmail.com
      9806 | raja    | jr journalist      | kochi     | kerala         | 6412943868 | raja@gmail.com
      9807 | anthony | teacher            | Hyderabad | Telangana      | 6497596969 | anthony@gmail.com
      9808 | ismail  | coal mining ceo    | Banglore  | Karnataka      | 6582250070 | ismail@gmail.com
      9809 | farah   | business           | Vijaywada | Andhra Pradesh | 6666903171 | farah@gmail.com
      9810 | zoya    | business           | chennai   | Tamil nadu     | 6751556272 | zoya@gmail.com
      9811 | adam    | software engineer  | mumbai    | maharastra     | 6836209373 | adam@gmail.com
      9812 | ricky   | software engineer  | pune      | maharastra     | 6920862474 | ricky@gmail.com
(11 rows)

postgres=# select * from property;
 property_no |   city    | owned_by | overseen_by
-------------+-----------+----------+-------------
       63589 | Hyderabad |     8892 |       50012
       76589 | Banglore  |     8893 |       50013
       89589 | Vijaywada |     8894 |       50014
      102589 | chennai   |     8895 |       50015
      115589 | kochi     |     8896 |       50015
      128589 | Hyderabad |     8897 |       50017
      141589 | Banglore  |     8898 |       50018
      154589 | Vijaywada |     8899 |       50018
      167589 | chennai   |     8900 |       50019
      180589 | mumbai    |     8901 |       50013
      193589 | pune      |     8902 |       50018
(11 rows)
```

```
postgres=# select * from viewing;
 property_no | renter_no | viewing_date
-------------+-----------+--------------
       63589 |      9802 | 24-Jul-20
       76589 |      9812 | 25-Jul-20
       89589 |      9804 | 26-Jul-20
      102589 |      9811 | 27-Jul-20
      115589 |      9806 | 28-Jul-20
      128589 |      9807 | 29-Jul-20
      141589 |      9808 | 30-Jul-20
      154589 |      9809 | 31-Jul-20
      167589 |      9809 | 01-Aug-20
      180589 |      9811 | 02-Aug-20
      193589 |      9812 | 03-Aug-20
(11 rows)
```

```
postgres=# select * from advertisement;
 ad_no |  ad_date  |  paper  | property_no
-------+-----------+---------+-------------
    22 | 01-Jun-20 | hindu   |       63589
    23 | 02-Jun-20 | eenadu  |       76589
    24 | 03-Jun-20 | times   |       89589
    25 | 04-Jun-20 | sakshi  |      102589
    26 | 05-Jun-20 | dc      |      115589
    27 | 06-Jun-20 | hindu   |      128589
    28 | 07-Jun-20 | eenadu  |      141589
    29 | 08-Jun-20 | times   |      154589
    30 | 09-Jun-20 | sakshi  |      167589
    31 | 10-Jun-20 | dc      |      180589
    32 | 11-Jun-20 | hindu   |      193589
(11 rows)
```

```
postgres=# select * from rental_agreement;
 rental_no | property_no | signing_date | start_date | end_date  | renter_no
-----------+-------------+--------------+------------+-----------+-----------
      2356 |       63589 | 24-Aug-20    | 04-Sep-20  | 04-Sep-22 |      9802
      2357 |       76589 | 25-Aug-20    | 05-Sep-20  | 05-Sep-22 |      9812
      2358 |       89589 | 26-Aug-20    | 06-Sep-20  | 06-Sep-22 |      9804
      2359 |      102589 | 27-Aug-20    | 07-Sep-20  | 07-Sep-22 |      9811
      2360 |      115589 | 28-Aug-20    | 08-Sep-20  | 08-Sep-22 |      9806
      2361 |      128589 | 29-Aug-20    | 09-Sep-20  | 09-Sep-22 |      9807
      2362 |      141589 | 30-Aug-20    | 10-Sep-20  | 10-Sep-22 |      9808
      2363 |      154589 | 31-Aug-20    | 11-Sep-20  | 11-Sep-22 |      9809
      2364 |      167589 | 01-Sep-20    | 12-Sep-20  | 12-Sep-22 |      9809
      2365 |      180589 | 02-Sep-20    | 13-Sep-20  | 13-Sep-22 |      9811
      2366 |      193589 | 03-Sep-20    | 14-Sep-20  | 14-Sep-22 |      9812
(11 rows)
```

3. Display renter details which are unique

```
postgres=# select distinct * from renter;
 renter_no |  name   | type_of_business   |   city    |     state      |   phone    |       email
-----------+---------+--------------------+-----------+----------------+------------+--------------------
      9802 | ram     | private employee   | Hyderabad | Telangana      | 6074331464 | ram@gmail.com
      9811 | adam    | software engineer  | mumbai    | maharastra     | 6836209373 | adam@gmail.com
      9809 | farah   | business           | Vijaywada | Andhra Pradesh | 6666903171 | farah@gmail.com
      9805 | raghu   | clerk              | chennai   | Tamilnadu      | 6328290767 | raghu@gmail.com
      9804 | sundhar | private employee   | Vijaywada | Andhra Pradesh | 6243637666 | sindhar@gmail.com
      9810 | zoya    | business           | chennai   | Tamil nadu     | 6751556272 | zoya@gmail.com
      9808 | ismail  | coal mining ceo    | Banglore  | Karnataka      | 6582250070 | ismail@gmail.com
      9812 | ricky   | software engineer  | pune      | maharastra     | 6920862474 | ricky@gmail.com
      9807 | anthony | teacher            | Hyderabad | Telangana      | 6497596969 | anthony@gmail.com
      9806 | raja    | jr journalist      | kochi     | kerala         | 6412943868 | raja@gmail.com
      9803 | sham    | software engineer  | Banglore  | Karnataka      | 6158984565 | sham@gmail.com
(11 rows)
```

4. Give the email addresses and the renter number for all the
   private renters. Please ,sort them by the renter number

```
postgres=# select email, renter.renter_no from renter where renter_no is not null order by renter.renter_no;
       email        | renter_no
--------------------+-----------
 ram@gmail.com      |      9802
 sham@gmail.com     |      9803
 sindhar@gmail.com  |      9804
 raghu@gmail.com    |      9805
 raja@gmail.com     |      9806
 anthony@gmail.com  |      9807
 ismail@gmail.com   |      9808
 farah@gmail.com    |      9809
 zoya@gmail.com     |      9810
 adam@gmail.com     |      9811
 ricky@gmail.com    |      9812
(11 rows)
```

5. Find unique property name and number of branches for each
   property

```
postgres=# select distinct * from property;
 property_no |   city     | owned_by | overseen_by
-------------+------------+----------+-------------
      180589 | mumbai     |     8901 |       50013
       76589 | Banglore   |     8893 |       50013
      154589 | Vijaywada  |     8899 |       50018
      128589 | Hyderabad  |     8897 |       50017
       63589 | Hyderabad  |     8892 |       50012
      167589 | chennai    |     8900 |       50019
      193589 | pune       |     8902 |       50018
      102589 | chennai    |     8895 |       50015
      141589 | Banglore   |     8898 |       50018
      115589 | kochi      |     8896 |       50015
       89589 | Vijaywada  |     8894 |       50014
(11 rows)
```

6. Create table for staff member and insert all the details of
   the staff members

```
postgres=# select * from staff;
 staff_no |  name   |  salary  |   city    |     state      |  phone    |       email
----------+---------+----------+-----------+----------------+-----------+--------------------
 50012    | Surya   | 45000.00 | Hyderabad | Telangana      | 6074331464 | sj@gmail.com
 50013    | raju    | 50000.00 | Banglore  | Karnataka      | 6158984565 | raju@yahoo.co.in
 50014    | virat   | 55000.00 | Vijaywada | Andhra Pradesh | 6243637666 | v@raju.com
 50015    | laya    | 60000.00 | chennai   | Tamil nadu     | 6328290767 | pooja@tcs.com
 50016    | pooja   | 65000.00 | kochi     | kerala         | 6412943868 | ab@gmail.com
 50017    | anil    | 70000.00 | Hyderabad | Telangana      | 6497596969 | anil@gmail.com
 50018    | sunil   | 75000.00 | Banglore  | Karnataka      | 6582250070 | sunil@gmail.com
 50019    | rohit   | 35000.00 | Vijaywada | Andhra Pradesh | 6666903171 | rohit@gmail.com
 50020    | sowmya  | 42000.00 | chennai   | Tamil nadu     | 6751556272 | sowmya@gmail.com
 50021    | robert  | 90000.00 | mumbai    | maharastra     | 6836209373 | robert@gmail.com
 50022    | mujahed | 95000.00 | pune      | maharastra     | 6920862474 | mujahed@gmail.com
(11 rows)
```

7. Display the count of staff in each branch and display them
   in descending order on count

```
postgres=# select city,count(*) from staff group by city order by count DESC;
   city     | count
-----------+-------
 Banglore   |     2
 Vijaywada  |     2
 Hyderabad  |     2
 chennai    |     2
 kochi      |     1
 mumbai     |     1
 pune       |     1
(7 rows)
```

8. Write a query to print details of the staff whose Name ends with 'h' and contains six alphabets

```
postgres=# select name from staff where name like '%h' and char_length('name')=6;
 name
------
(0 rows)
```

9. Write a query to print details of the staff whose SALARY lies between 100000 and 500000

```
postgres=# select * from staff where salary between 10000 and 50000;
 staff_no |  name  |  salary  |   city    |     state      |   phone    |       email
----------+--------+----------+-----------+----------------+------------+------------------
 50012    | Surya  | 45000.00 | Hyderabad | Telangana      | 6074331464 | sj@gmail.com
 50013    | raju   | 50000.00 | Banglore  | Karnataka      | 6158984565 | raju@yahoo.co.in
 50019    | rohit  | 35000.00 | Vijaywada | Andhra Pradesh | 6666903171 | rohit@gmail.com
 50020    | sowmya | 42000.00 | chennai   | Tamil nadu     | 6751556272 | sowmya@gmail.com
(4 rows)
```

10. Write down a query to find out the Name, Address and Position of the branch staff whose salary is the second highest without using TOP or limit method

```
postgres=# select * from staff where salary in (select max(salary) as salary from staff where salary not in (select max(salary) from staff));
 staff_no |  name  |  salary  |  city  |   state    |   phone    |       email
----------+--------+----------+--------+------------+------------+------------------
 50021    | robert | 90000.00 | mumbai | maharastra | 6836209373 | robert@gmail.com
(1 row)
```