1. Zip code 28759 in city Bremen

```
MariaDB [Group-4]> SELECT P_id AS Property_id, City AS Property_City, Zip_code AS Property_ZipCode
    -> FROM (
    ->     SELECT P_id, City, Zip_code
    ->     FROM Apartment_single

    SELECT P_id, City, Zip_code
    FROM House    ->      WHERE City = 'Bremen' AND Zip_code = 28759
    ->     UNION ALL
ION ALL
    SELECT    ->      SELECT P_id, City, Zip_code
ROM House_company
    WHERE C   ->      FROM House_single
    ->     WHERE City = 'Bremen' AND Zip_code = 28759
    ->     UNION ALL
    ->     SELECT P_id, City, Zip_code
    ->     FROM Apartment_company
    ->     WHERE City = 'Bremen' AND Zip_code = 28759
    ->     UNION ALL
    ->     SELECT P_id, City, Zip_code
    ->     FROM House_company
    ->     WHERE City = 'Bremen' AND Zip_code = 28759
    -> ) AS AllProperties;
+-------------+---------------+-----------------+
| Property_id | Property_City | Property_ZipCode |
+-------------+---------------+-----------------+
|           1 | Bremen        |           28759 |
|           2 | Bremen        |           28759 |
|           5 | Bremen        |           28759 |
+-------------+---------------+-----------------+
3 rows in set (0.001 sec)
```

2. All properties posted by Qasim

```
MariaDB [Group-4]> SELECT P.P_id, P.City, P.Zip_code
    -> FROM (
    ->     SELECT AS1.P_id, AS1.City, AS1.Zip_code
    ->     FROM Single_User SU
    ->     JOIN Properties_single PS ON SU.S_id = PS.S_id
AS1.S_id
    WHER    ->      JOIN Apartment_single AS1 ON PS.S_id = AS1.S_id
    ->     WHERE SU.First_name = 'Qasim'
    ->     UNION
 WHERE SU.First_name    -> = 'Qasim'
) AS    SELECT HS1.P_id, HS1.City, HS1.Zip_code
    ->     FROM Single_User SU
    ->     JOIN Properties_single PS ON SU.S_id = PS.S_id
    ->     JOIN House_single HS1 ON PS.S_id = HS1.S_id
    ->     WHERE SU.First_name = 'Qasim'
    -> ) AS P;
+------+--------+----------+
| P_id | City   | Zip_code |
+------+--------+----------+
|    1 | Bremen |    28759 |
|    2 | Bremen |    28759 |
+------+--------+----------+
2 rows in set (0.001 sec)
```

3. Houses posted by Qasim with price < $250000

```
MariaDB [Group-4]> SELECT H.P_id, H.City, H.Zip_code, H.Price
INNER JOIN Properties_single PS ON SU.S_id = PS.S_id
IN    -> FROM Single_User SU
    -> INNER JOIN Properties_single PS ON SU.S_id = PS.S_id
    -> INNER JOIN House_single H ON PS.S_id = H.S_id
    -> WHERE SU.First_name = 'Qasim' AND H.Price < 250000;
+------+--------+----------+--------+
| P_id | City   | Zip_code | Price  |
+------+--------+----------+--------+
|    2 | Bremen |    28759 | 230000 |
+------+--------+----------+--------+
1 row in set (0.001 sec)
```

4. Select furnished properties from both Apartment_single and Apartment_company tables

```
MariaDB [Group-4]> SELECT P_id, post_data, Furnished
    -> FROM Apartment_single
ON ALL
SELECT P_id, post_data, F     -> WHERE Furnished = 'YES'
    -> UNION ALL
M Apartment_company     -> SELECT P_id, post_data, Furnished
    -> FROM Apartment_company
    -> WHERE Furnished = 'YES';
+------+------------+-----------+
| P_id | post_data  | Furnished |
+------+------------+-----------+
|    1 | 2023-09-17 | YES       |
|    3 | 2022-08-29 | YES       |
+------+------------+-----------+
2 rows in set (0.001 sec)
```

5. Select properties from both Apartment_single and Apartment_company tables, ordered by post_data in descending order

```
MariaDB [Group-4]> SELECT P_id, post_data
    -> FROM Apartment_single
    -> UNION ALL
    -> SELECT P_id, post_data
    -> FROM Apartment_company
    -> ORDER BY post_data DESC;
+------+------------+
| P_id | post_data  |
+------+------------+
|    5 | 2023-10-16 |
|    1 | 2023-09-17 |
|    3 | 2022-08-29 |
+------+------------+
3 rows in set (0.001 sec)
```

6. Find sellers with more than 100 properties sold

```
MariaDB [Group-4]> SELECT Seller.Seller_id AS S_id, SUM(Seller.P_sold) AS TotalPropertiesSold
NION ALL
    SE    -> FROM (
    ->       SELECT S_id AS Seller_id, P_sold
    ->       FROM Single_Seller
    ->       UNION ALL
    ->       SELECT C_id AS Seller_id, P_sold
    ->       FROM Company_Seller
    -> ) AS Seller
    -> GROUP BY Seller.Seller_id
    -> HAVING SUM(Seller.P_sold) > 100;
+------+---------------------+
| S_id | TotalPropertiesSold |
+------+---------------------+
|    2 |                 159 |
+------+---------------------+
1 row in set (0.001 sec)
```

7. Select properties of any type with a price less than $100,000

```
MariaDB [Group-4]> SELECT P_id, Size, N_rooms, N_bath, Price
    -> FROM Apartment_single
    -> WHERE Price < 100000 UNION ALL
    -> SELECT P_id, Size, N_rooms, N_bath, Price
    -> FROM House_single
    -> WHERE Price < 100000 UNION ALL
    -> SELECT P_id, Size, N_rooms, N_bath, Price
    -> FROM Apartment_company
    -> WHERE Price < 100000 UNION ALL
    -> SELECT P_id, Size, N_rooms, N_bath, Price
    -> FROM House_company
    -> WHERE Price < 100000;
+------+------+---------+--------+-------+
| P_id | Size | N_rooms | N_bath | Price |
+------+------+---------+--------+-------+
|    3 |  220 |       2 |      1 | 86000 |
+------+------+---------+--------+-------+
1 row in set (0.001 sec)
```

8. Select properties where the number of rooms is greater than 2 and the number of bathrooms is greater than or equal to 1

```
MariaDB [Group-4]> SELECT P_id, Size, N_rooms, N_bath
    -> FROM Apartment_single
    -> WHERE N_rooms > 2 AND N_bath >= 1 UNION ALL
ROM House_single
WHERE N_rooms > 2    -> SELECT P_id, Size, N_rooms, N_bath
AND N_bat    -> h >= 1 UFROM House_single
    -> WHERE N_rooms > 2 AND N_bath >= 1 UNION ALL
    -> SELECT P_id, Size, N_rooms, N_bath
    -> FROM Apartment_company WHERE N_rooms > 2 AND N_bath >= 1 UNION ALL
ooms, N_bath
FROM    -> SELECT P_id, Size, N_rooms, N_bath
    -> FROM House_company
    -> WHERE N_rooms > 2 AND N_bath >= 1;
+------+------+---------+--------+
| P_id | Size | N_rooms | N_bath |
+------+------+---------+--------+
|    1 |  450 |       3 |      2 |
|    2 | 1200 |       5 |      4 |
|    5 |  330 |       4 |      2 |
|    4 |  310 |       3 |      2 |
+------+------+---------+--------+
4 rows in set (0.001 sec)
```

9. Select all properties posted by a company in Bremen

```
MariaDB [Group-4]> SELECT C.Name AS CompanyName, P.P_id, P.post_data
    -> FROM Company AS C
    -> JOIN Apartment_company AS P ON C.C_id = P.C_id
    -> WHERE P.City = 'Bremen'
    -> UNION ALL
    -> SELECT C.Name AS CompanyName, P.P_id, P.post_data
    -> FROM Company AS C
    -> JOIN House_company AS P ON C.C_id = P.C_id
    -> WHERE P.City = 'Bremen';
+-------------+------+-------------+
| CompanyName | P_id | post_data   |
+-------------+------+-------------+
| Zameen      |    5 | 2023-10-16  |
+-------------+------+-------------+
1 row in set (0.001 sec)
```