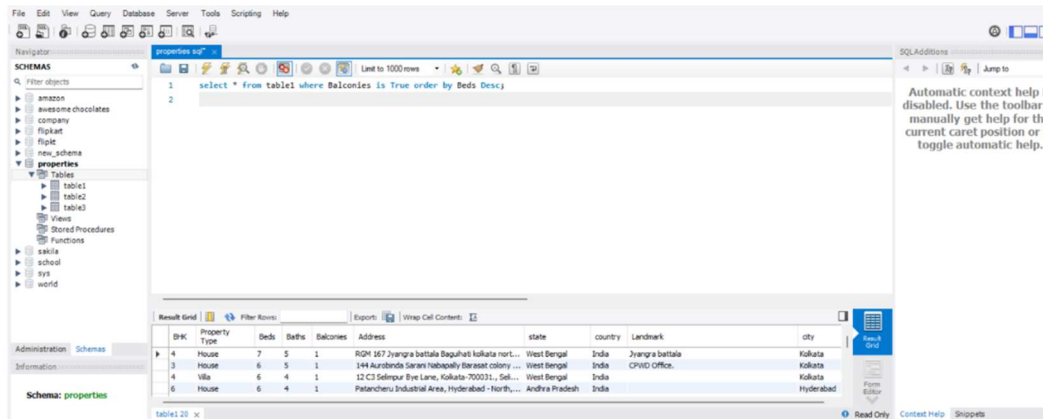


Table 1

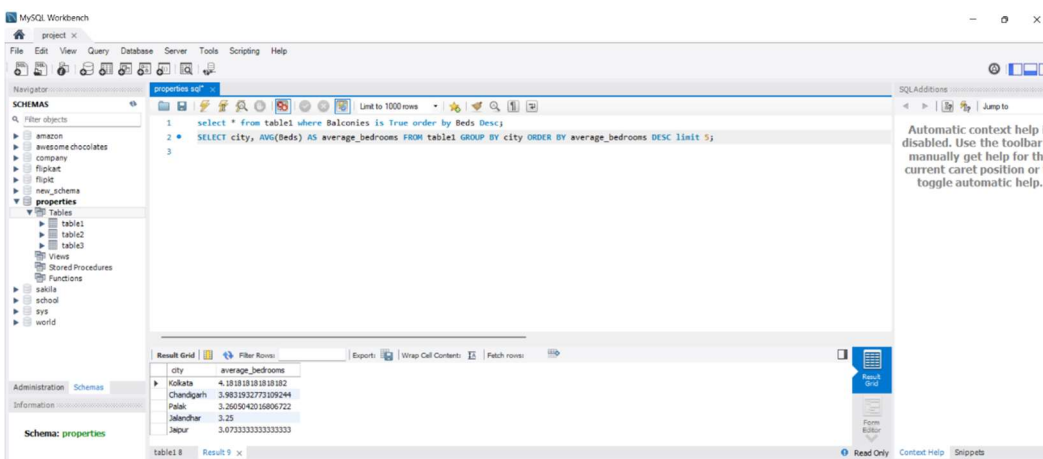
1- Retrieve properties with balconies, sorted by the number of bedrooms in descending order.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `select * from table1 where Balconies is True order by Beds Desc;`. The Results tab displays the following data:

IDK	Property Type	Beds	Baths	Balconies	Address	state	country	Landmark	city
4	House	7	5	1	RDH 167 Zynga betala Beguhati Kolkata north...	West Bengal	India	Zynga betala	Kolkata
3	House	6	5	1	144Aurubinda Serey Nabawally Barasat colony ...	West Bengal	India	CPWD Office	Kolkata
4	Villa	6	4	1	12 C3 Selpur Bye Lane, Kolkata-700031., Sel...	West Bengal	India		Kolkata
6	House	6	4	1	Patancheru Industrial Area, Hyderabad - North...	Andhra Pradesh	India		Hyderabad

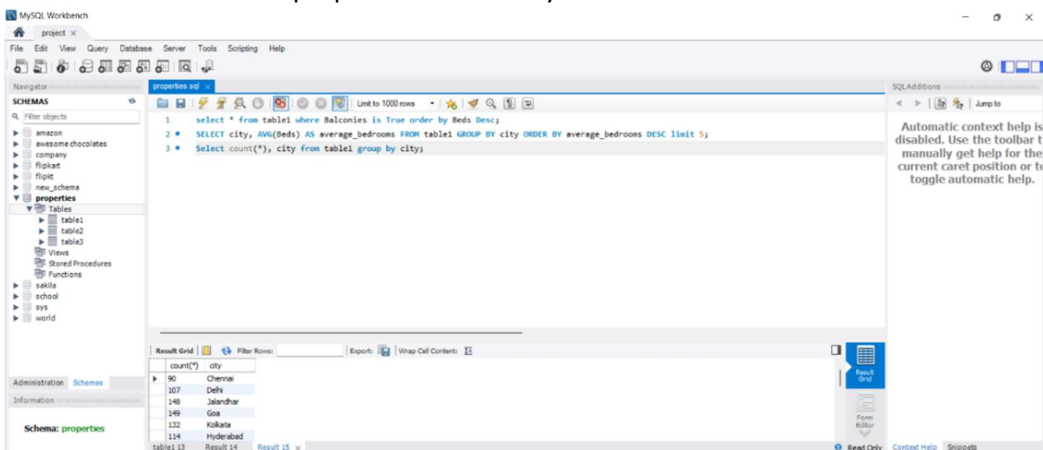
2- Find the top 5 cities with the highest average number of bedrooms per property.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `select city, AVG(Beds) AS average_bedrooms FROM table1 GROUP BY city ORDER BY average_bedrooms DESC limit 5;`. The Results tab displays the following data:

city	average_bedrooms
Kolkata	4.1818181818182
Chandigarh	3.9833333333333
Palak	3.2650420168067
Jalandhar	3.25
Japur	3.0733333333333

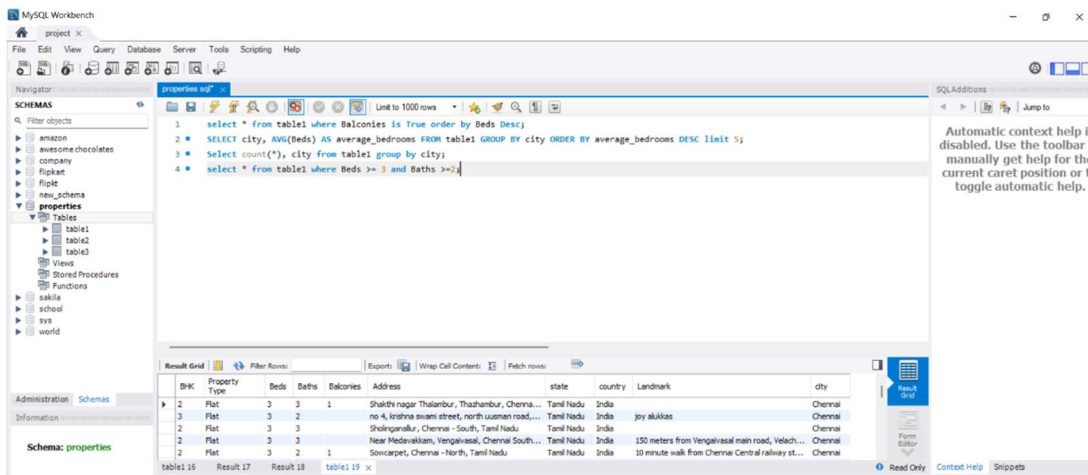
3- Count the number of properties in each city.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `select count(*), city from table1 group by city;`. The Results tab displays the following data:

count(*)	city
90	Chennai
107	Delhi
148	Jalandhar
149	Goa
132	Kolkata
114	Hyderabad

4- Retrieve all properties with at least 3 bedrooms and 2 bathrooms.



5- Find properties in a specific state with a certain landmark. (take state and landmark on your own).

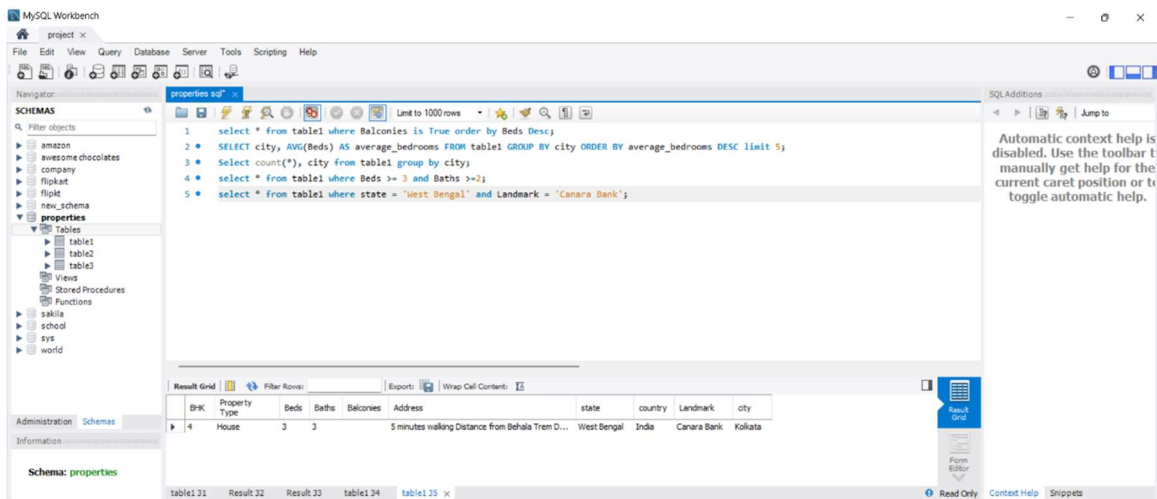
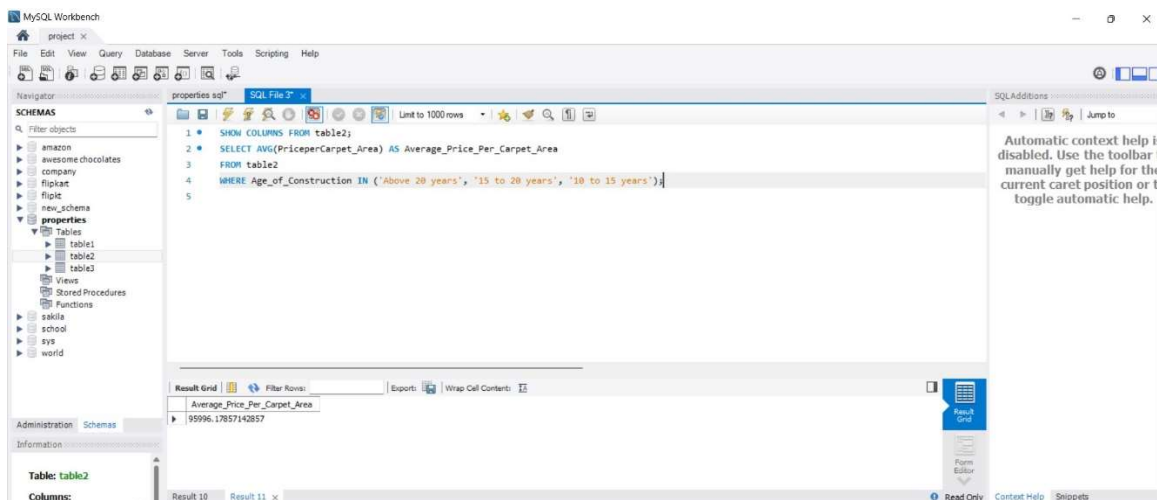
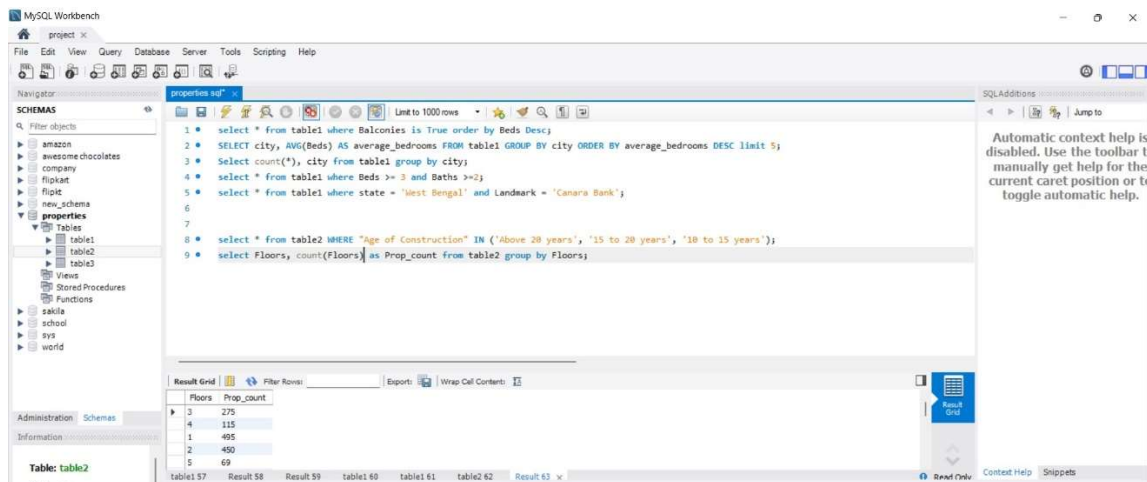


Table2

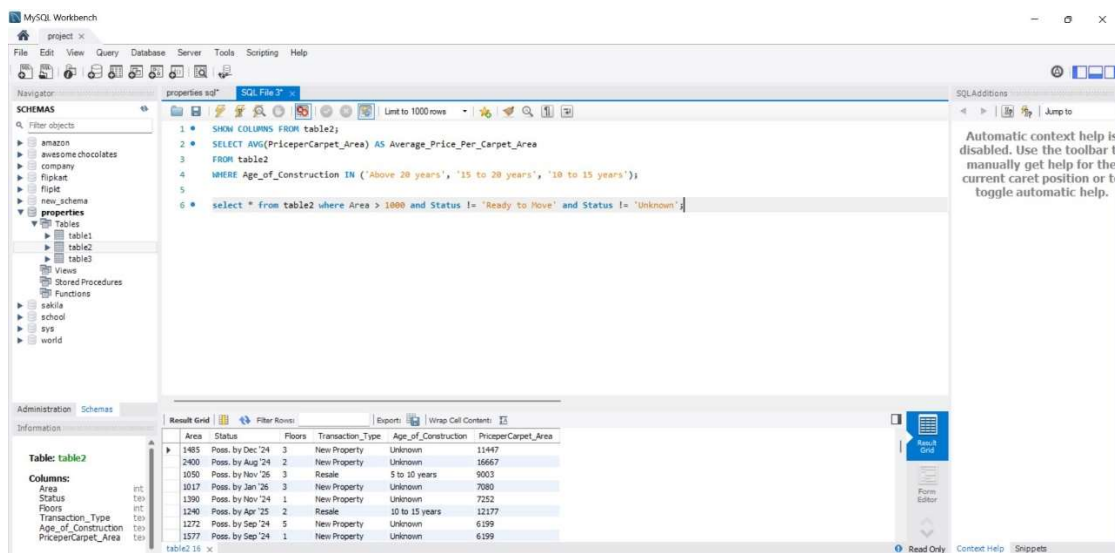
1- Calculate the average price per square foot for properties built before 2010.



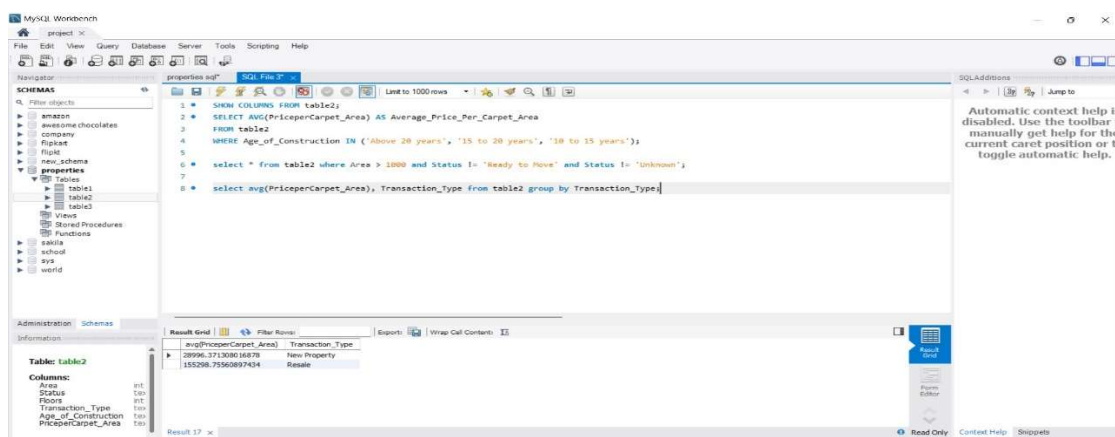
2- Find the total number of properties on each floor.



3- Retrieve properties with a carpet area greater than 1000 square feet and a status of 'Under Construction'.



4- Calculate the average price per square foot for each transaction type.



5- Find the properties with the highest price per square foot, sorted in descending order.

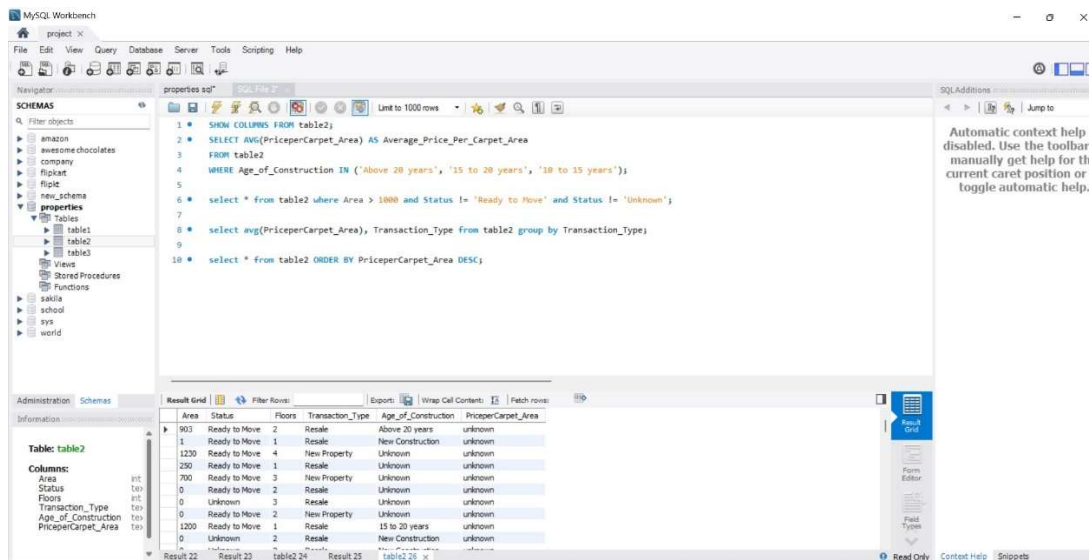
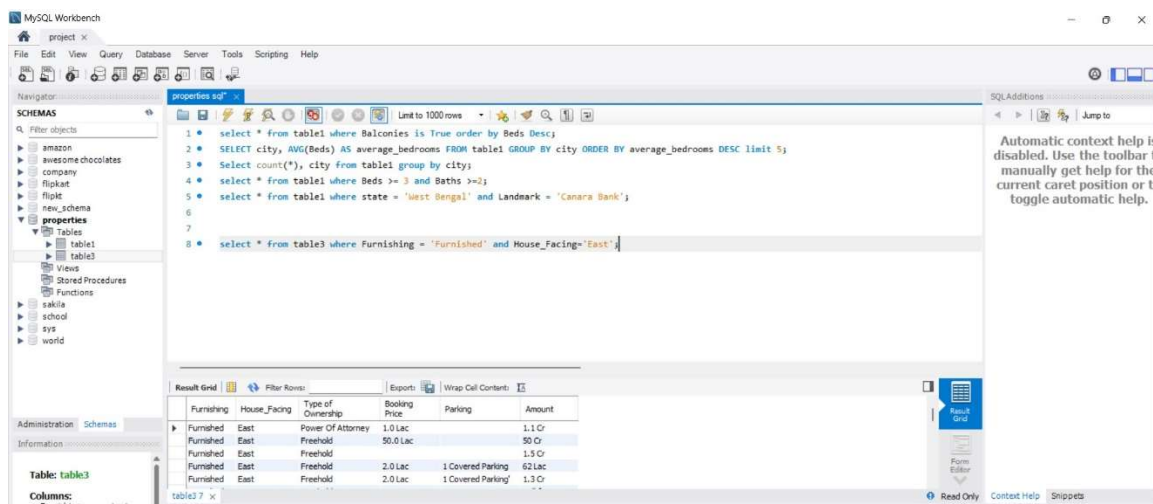
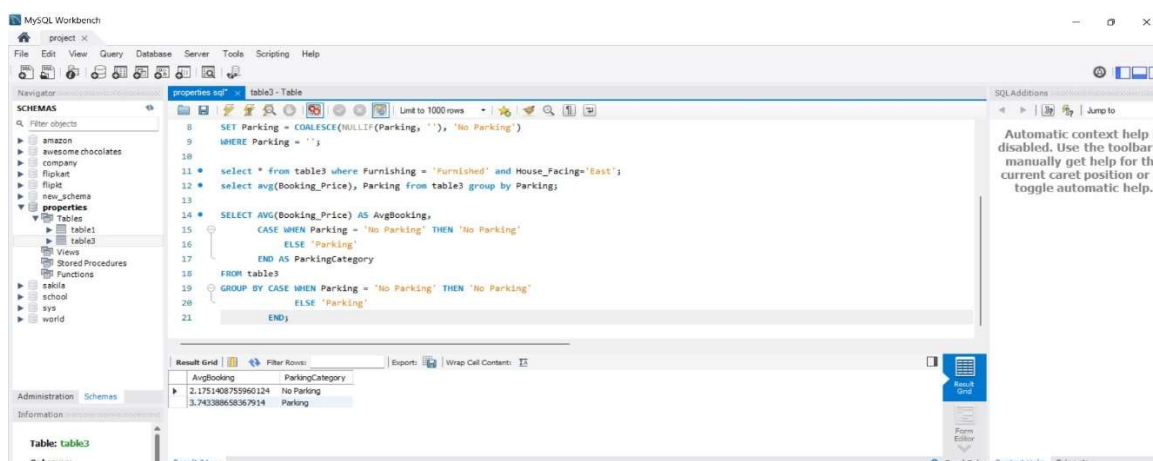


Table3

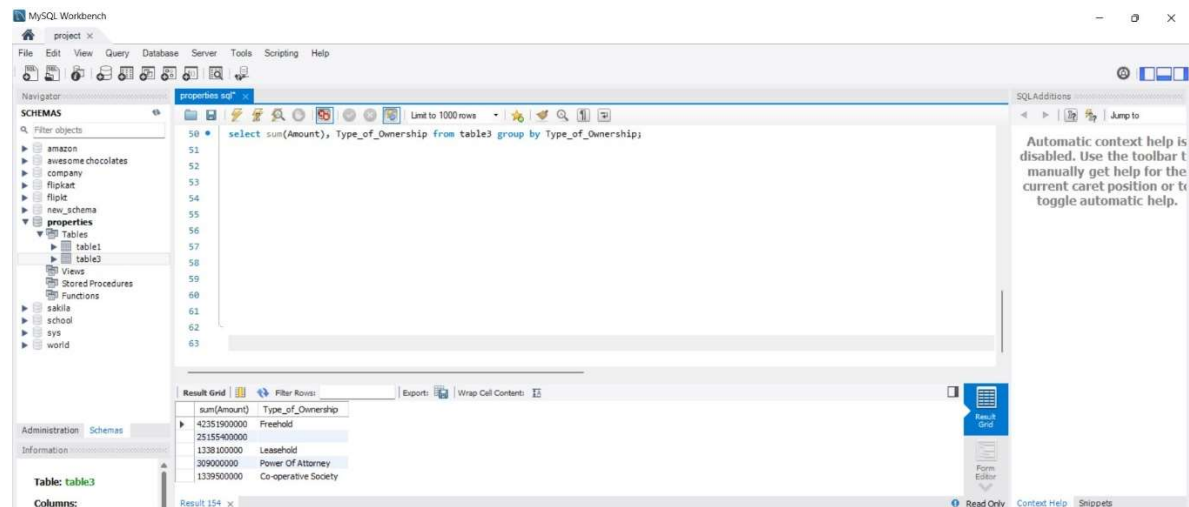
1- Retrieve all properties with a furnished status of 'Fully Furnished' and a facing direction of 'East'.



2- Calculate the average booking amount for properties with and without car parking:



3- Find the total price of properties with different types of ownership.



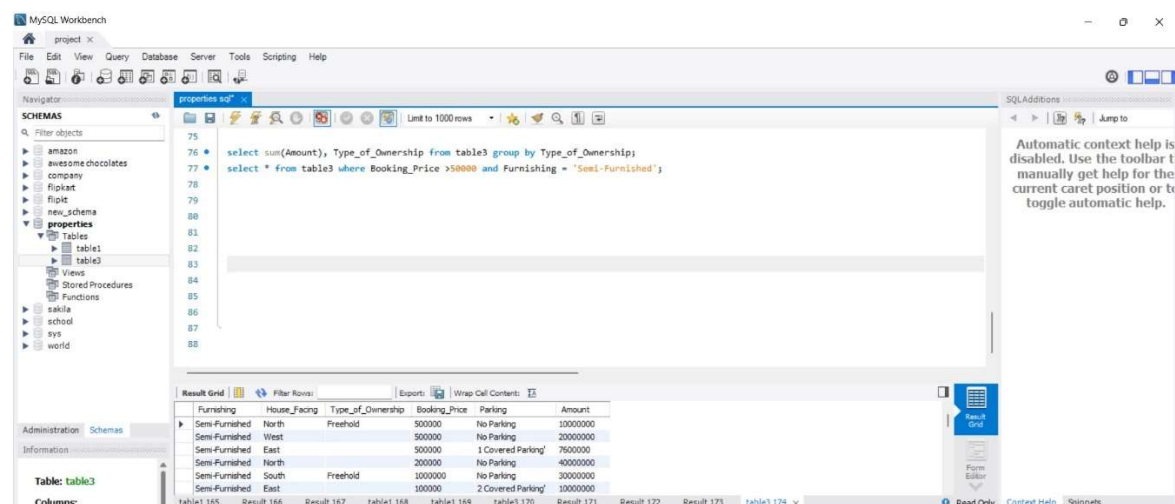
The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
select sum(Amount), Type_of_Ownership from table3 group by Type_of_Ownership;
```

The result grid displays the following data:

sum(Amount)	Type_of_Ownership
42351900000	Freehold
25155400000	
1338100000	Leasehold
309000000	Power Of Attorney
133900000	Co-operative Society

4- Retrieve properties with a booking amount greater than 50000 and a furnished status of 'Semi Furnished'.



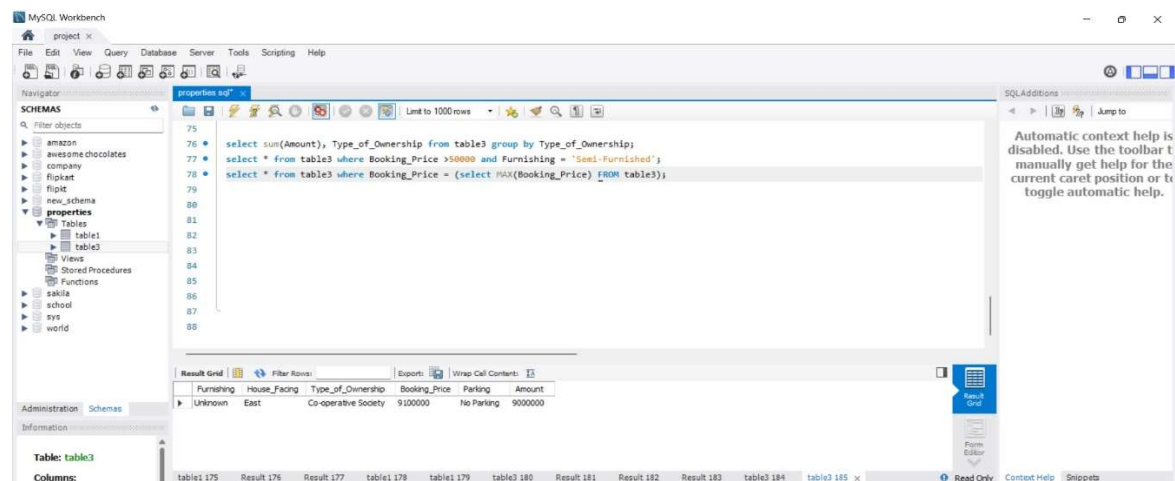
The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
select * from table3 where Booking_Price > 50000 and Furnishing = 'Semi-Furnished';
```

The result grid displays the following data:

Furnishing	House_Facing	Type_of_Ownership	Booking_Price	Parking	Amount
Semi-Furnished	North	Freehold	500000	No Parking	10000000
Semi-Furnished	West		500000	No Parking	20000000
Semi-Furnished	East		500000	1 Covered Parking	7500000
Semi-Furnished	North		200000	No Parking	40000000
Semi-Furnished	South	Freehold	1000000	No Parking	30000000
Semi-Furnished	East		100000	2 Covered Parking	10000000

5- Find the property with the highest booking amount.



The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

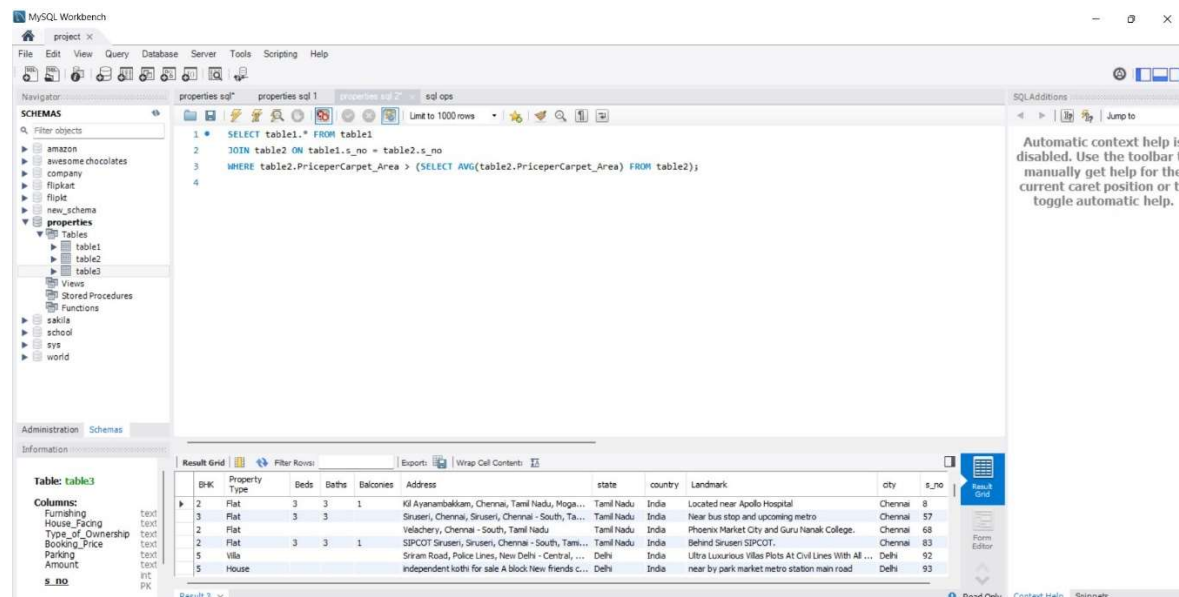
```
select * from table3 where Booking_Price = (select MAX(Booking_Price) from table3);
```

The result grid displays the following data:

Furnishing	House_Facing	Type_of_Ownership	Booking_Price	Parking	Amount
Unknown	East	Co-operative Society	9100000	No Parking	9000000

Join SQL Queries using all 3 tables

1- Retrieve properties from table1 that have a higher price per square foot than the average price per square foot in table2.



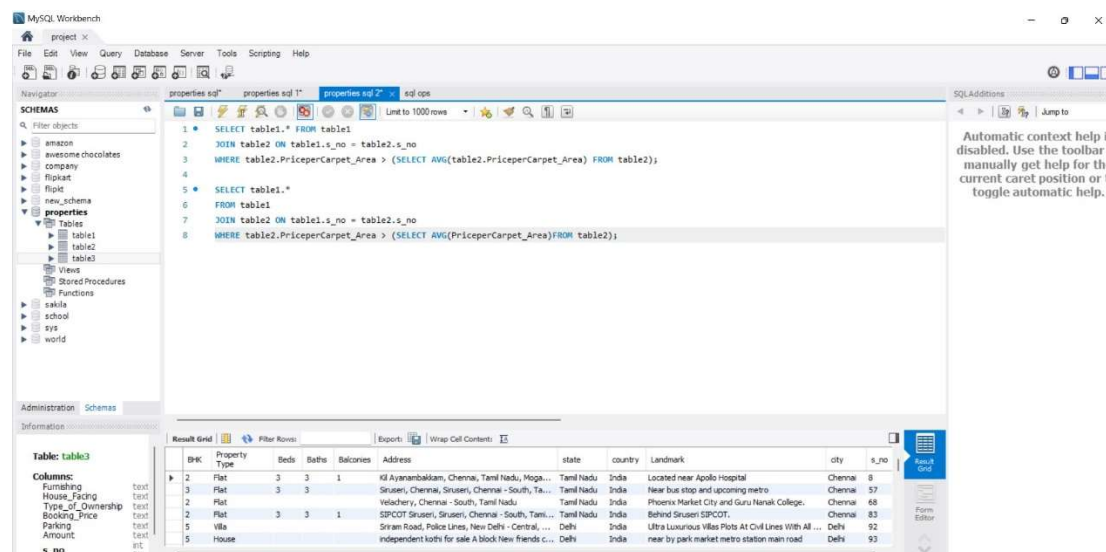
The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 * SELECT table1.* FROM table1
2 JOIN table2 ON table1.s_no = table2.s_no
3 WHERE table2.PricePerCarpet_Area > (SELECT AVG(table2.PricePerCarpet_Area) FROM table2);
4
```

The Result Grid displays the following data:

BK#	Property Type	Beds	Baths	Balconies	Address	state	country	Landmark	city	s_no
2	Flat	3	3	1	KJ Ayanambakkam, Chennai, Tamil Nadu, Moga...	Tamil Nadu	India	Located near Apollo Hospital	Chennai	8
3	Flat	3	3		Sruseri, Chennai, Sruseri, Chennai - South, Ta...	Tamil Nadu	India	Near bus stop and upcoming metro	Chennai	57
2	Flat				Velachery, Chennai - South, Tamil Nadu	Tamil Nadu	India	Phoenix Market City and Guru Nanak College.	Chennai	68
2	Flat	3	3	1	SIPCOT Sruseri, Sruseri, Chennai - South, Tami...	Tamil Nadu	India	Behind Sruseri SIPCOT.	Chennai	83
5	Villa				Sriram Road, Police Lines, New Delhi - Central, ...	Delhi	India	Ultra Luxurious Villas Plots At Civil Lines With All ...	Delhi	92
5	House				Independent kothi for sale A block New Friends c...	Delhi	India	near by park market metro station main road	Delhi	93

2- Find the properties in table1 that are located in cities where the average price per square foot in table2 is higher than the overall average price per square foot.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 * SELECT table1.* FROM table1
2 JOIN table2 ON table1.s_no = table2.s_no
3 WHERE table2.PricePerCarpet_Area > (SELECT AVG(table2.PricePerCarpet_Area) FROM table2);
4
5 * SELECT table1.*
6 FROM table1
7 JOIN table2 ON table1.s_no = table2.s_no
8 WHERE table2.PricePerCarpet_Area > (SELECT AVG(PricePerCarpet_Area)FROM table2);
```

The Result Grid displays the same data as in the first screenshot.

3- Retrieve properties from table1 with a certain landmark that have a lower price per square foot than the average price per square foot for properties with the same landmark in table2. (Choose landmark on our own)

MySQL Workbench interface showing a SQL query and its result grid. The query is as follows:

```

1 SELECT table1.* FROM table1
2 JOIN table2 ON table1.s_no = table2.s_no
3 WHERE table2.PriceperCarpet_Area > (SELECT AVG(table2.PriceperCarpet_Area) FROM table2);
4
5 SELECT table1.*
6 FROM table1
7 JOIN table2 ON table1.s_no = table2.s_no
8 WHERE table2.PriceperCarpet_Area > (SELECT AVG(PriceperCarpet_Area)FROM table2);
9
10 SELECT table1.*
11 FROM table1
12 JOIN table2 ON table1.s_no = table2.s_no
13 WHERE table1.Landmark = 'Canara Bank' AND table1.PriceperCarpet_Area < (SELECT AVG(table2.PriceperCarpet_Area) FROM table2
14 WHERE table1.Landmark = 'Canara Bank');
15

```

The result grid shows the following data:

BHK	Property Type	Beds	Baths	Balcones	Address	state	country	Landmark	city	s_no
2	Flat	3	3	1	KJ Aiyeraballam, Chennai, Tamil Nadu, Hoga...	Tamil Nadu	India	Located near Apollo Hospital	Chennai	8
3	Flat	3	3		Sruseri, Chennai, Sruseri, Chennai - South, Ta...	Tamil Nadu	India	Near bus stop and upcoming metro	Chennai	57
2	Flat				Velachery, Chennai - South, Tamil Nadu	Tamil Nadu	India	Phoenix Market City and Guru Nanak College	Chennai	68
2	Flat	3	3	1	SIPCOT Sruseri, Sruseri, Chennai - South, Tam...	Tamil Nadu	India	Behind Sruseri SIPCOT	Chennai	83
5	Villa				Sriyam Road, Police Lines, New Delhi - Central, ...	Delhi	India	Ultra Luxurious Villas Plots At Civil Lines With AI ...	Dehli	92
5	House				Independent koths for sale A block New Friends C...	Delhi	India	near by park market metro station main road	Dehli	93

4- Retrieve properties from table2 with a price per square foot higher than the average booking amount in table3

MySQL Workbench interface showing a SQL query and its result grid. The query is as follows:

```

1 SELECT table1.* FROM table1
2 JOIN table2 ON table1.s_no = table2.s_no
3 WHERE table2.PriceperCarpet_Area > (SELECT AVG(table2.PriceperCarpet_Area) FROM table2);
4
5 SELECT table1.*
6 FROM table1
7 JOIN table2 ON table1.s_no = table2.s_no
8 WHERE table2.PriceperCarpet_Area > (SELECT AVG(PriceperCarpet_Area)FROM table2);
9
10 SELECT table1.*
11 FROM table1
12 JOIN table2 ON table1.s_no = table2.s_no
13 WHERE table1.Landmark = 'Canara Bank' AND table1.PriceperCarpet_Area < (SELECT AVG(table2.PriceperCarpet_Area) FROM table2
14 WHERE table1.Landmark = 'Canara Bank');
15
16 SELECT table2.*
17 FROM table2
18 WHERE table2.PriceperCarpet_Area > (SELECT AVG(Booking_Price) FROM table3);
19

```

The result grid shows the following data:

Area	Status	Floors	Transaction_Type	Age_of_Construction	PriceperCarpet_Area	s_no
0	Ready to Move	4	New Property	Unknown	1571429	57
0	Unknown	2	Resale	Above 20 years	1733333	99
0	Ready to Move	1	Resale	Above 20 years	1333333	131
0	Ready to Move	2	Resale	Unknown	4250000	296
0	Ready to Move	2	Resale	Unknown	3666666	334
0	Ready to Move	1	Resale	Less than 5 years	1900000	576
2178	Ready to Move	2	Resale	Unknown	5000000	906
1906	Poss. by Jun '24	1	Resale	Unknown	5000000	907

5- Count the number of properties in table2 with more bedrooms than the maximum number of bedrooms in table3.

MySQL Workbench interface showing a SQL query and its result grid. The query is as follows:

```

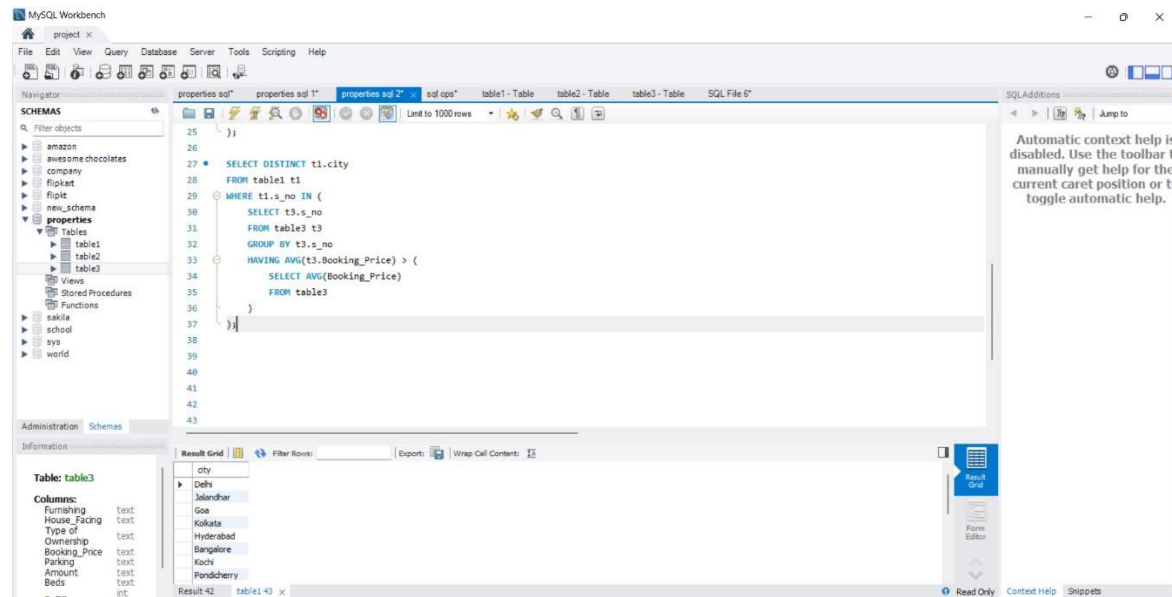
14 WHERE table1.Landmark = 'Canara Bank');
15
16 SELECT table2.*
17 FROM table2
18 WHERE table2.PriceperCarpet_Area > (SELECT AVG(Booking_Price) FROM table3);
19
20 SELECT COUNT(*)
21 FROM table2
22 WHERE Beds > (
23 SELECT MAX(COALESCE(Beds, 0)) -- Handle NULL values
24 FROM table3
25 );
26
27
28
29
30
31
32

```

The result grid shows the following data:

Schema: properties
COUNT(*)
0

6- Find the cities where the average booking amount in table3 is higher than the overall average booking amount, and retrieve properties from table1 located in those cities.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```

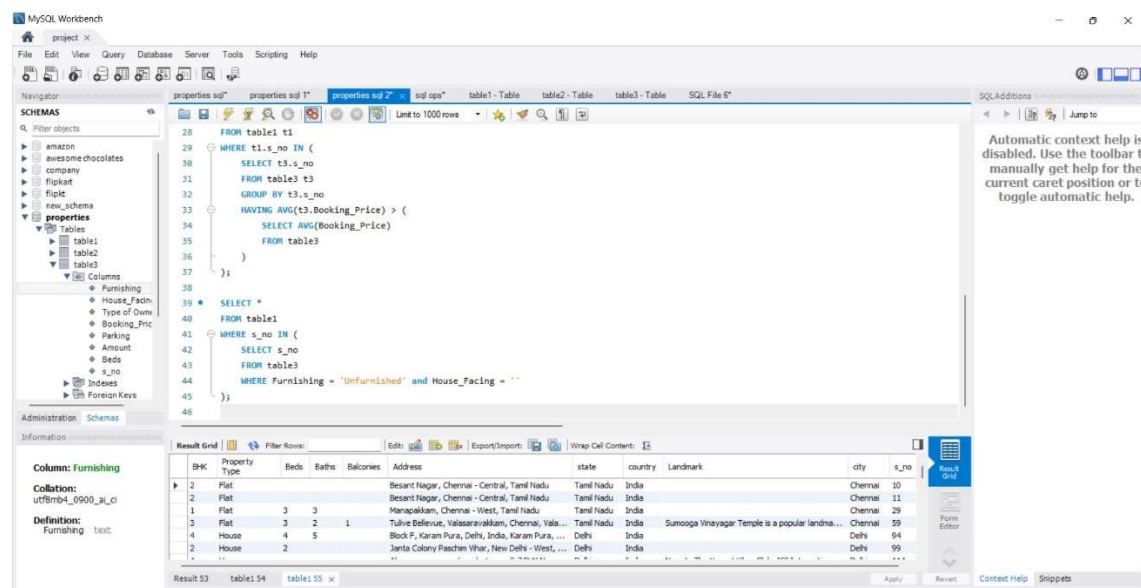
25  })
26
27  SELECT DISTINCT t1.city
28  FROM table1 t1
29  WHERE t1.s_no IN (
30    SELECT t3.s_no
31    FROM table3 t3
32    GROUP BY t3.s_no
33    HAVING AVG(t3.Booking_Price) > (
34      SELECT AVG(Booking_Price)
35      FROM table3
36    )
37  )
38
39
40
41
42
43

```

The result grid shows the following data:

City
Delhi
Jalandhar
Goa
Kolkata
Hyderabad
Bangalore
Kochi
Pandicherry

7- Retrieve properties from table1 with a furnished status of 'Unfurnished' and a facing direction that does not exist in table3.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```

28  FROM table1 t1
29  WHERE t1.s_no IN (
30    SELECT t3.s_no
31    FROM table3 t3
32    GROUP BY t3.s_no
33    HAVING AVG(t3.Booking_Price) > (
34      SELECT AVG(Booking_Price)
35      FROM table3
36    )
37  )
38
39  SELECT *
40  FROM table1
41  WHERE s_no IN (
42    SELECT s_no
43    FROM table3
44    WHERE Furnishing = 'Unfurnished' and House_Facing = ''
45  )
46

```

The result grid shows the following data:

BHK	Property Type	Beds	Baths	Balconies	Address	state	country	Landmark	city	s_no
2	Flat				Besant Nagar, Chennai - Central, Tamil Nadu	Tamil Nadu	India		Chennai	10
2	Flat				Besant Nagar, Chennai - Central, Tamil Nadu	Tamil Nadu	India		Chennai	11
1	Flat	3	3		Mangakkam, Chennai - West, Tamil Nadu	Tamil Nadu	India		Chennai	29
3	Flat	3	2	1	Tulve Bellevue, Valasaravakkam, Chennai, Vala...	Tamil Nadu	India	Sumooga Vinayagar Temple is a popular landma...	Chennai	59
4	House	4	5		Block F, Karam Pura, Delhi, India, Karam Pura, ...	Delhi	India		Delhi	94
2	House	2			Janta Colony Paschim Vihar, New Delhi - West, ...	Delhi	India		Delhi	99

