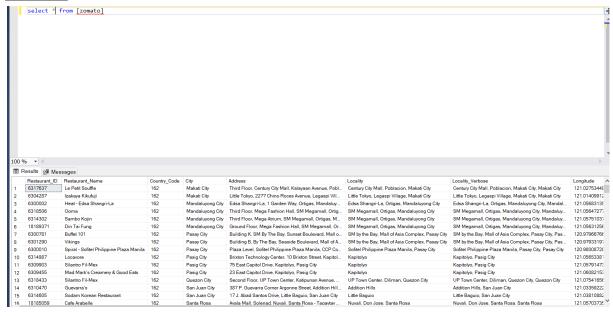
SQL

Question 1:

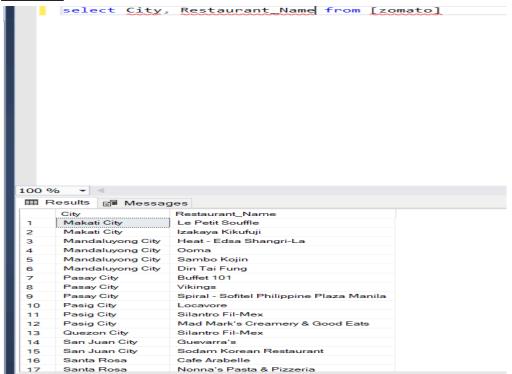
Display all records of the table

Answer:

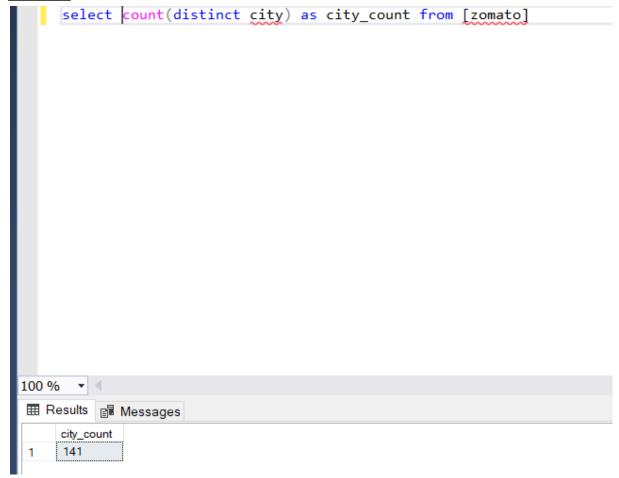


Question 2:

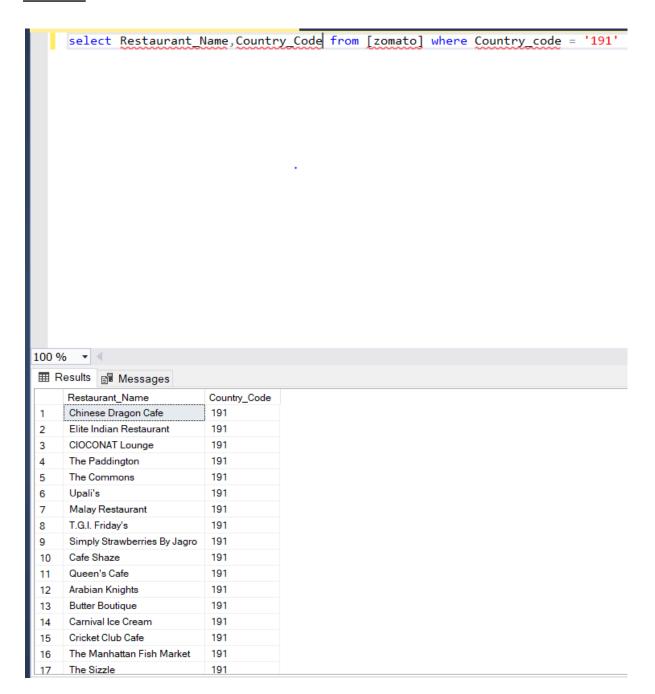
Display city and restaurant name.



Question 3: Display the distinct count of city



<u>Question 4 :</u> Display the restaurant name which have Country code as '191' <u>Answer :</u>



Question 5:

Find restaurants that offer a specific cuisine (e.g., 'Italian')

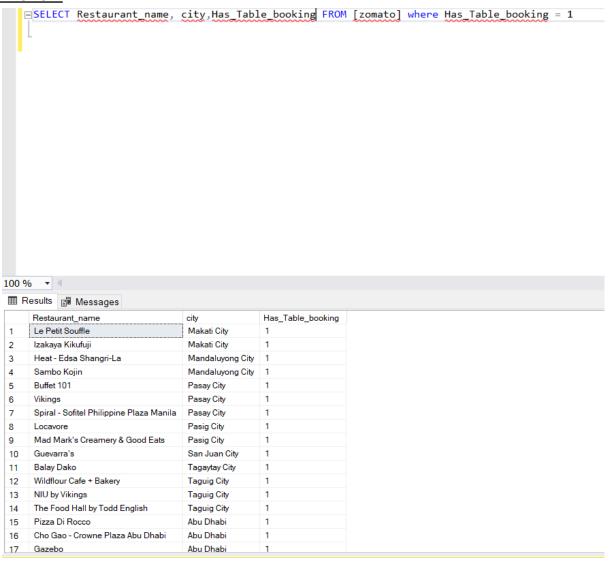
```
□SELECT Restaurant_Name, Cuisines

FROM [zomato]

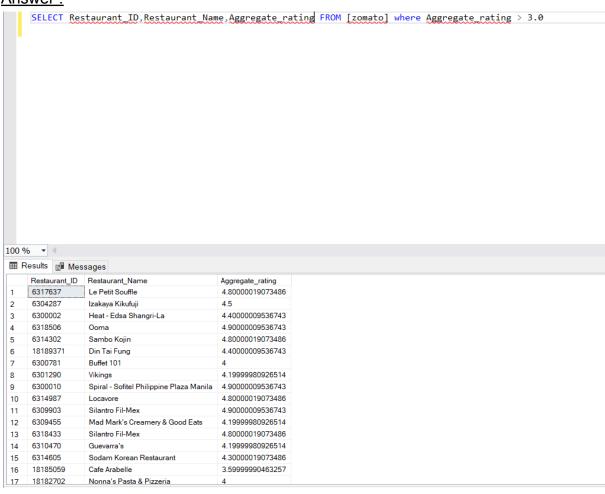
WHERE Cuisines LIKE '%Italian%';
```

100 % ▼ 《		
■ Results		
	Restaurant_Name	Cuisines
1	Cafe Arabelle	Cafe, American, Italian, Filipino
2	Nonna's Pasta & Pizzeria	Italian, Pizza
3	Wildflour Cafe + Bakery	Cafe, Bakery, American, Italian
4	The Food Hall by Todd English	American, Asian, Italian, Seafood
5	Villa Tevere	Italian
6	Gero	Italian
7	D.O.C Ristorante	Italian
8	Cantina Famiglia Mancini	Italian, Pizza
9	Paribar	Brazilian, Italian
10	Terraí_o Itíçlia	Italian
11	Villa Gargano	Italian, Pizza
12	DePalma's Italian Cafe - Downtown	American, Italian, Pizza
13	DePalma's Italian Cafe - East Side	American, Italian, Pizza
14	La Dolce Vita Ristorante	Italian
15	Transmetropolitan	Italian, Pizza, Sandwich
16	Giuseppe's Pizza & Italian Specialities	Desserts, Italian, Pizza
17	Mellow Mushroom	Italian, Pizza, Sandwich

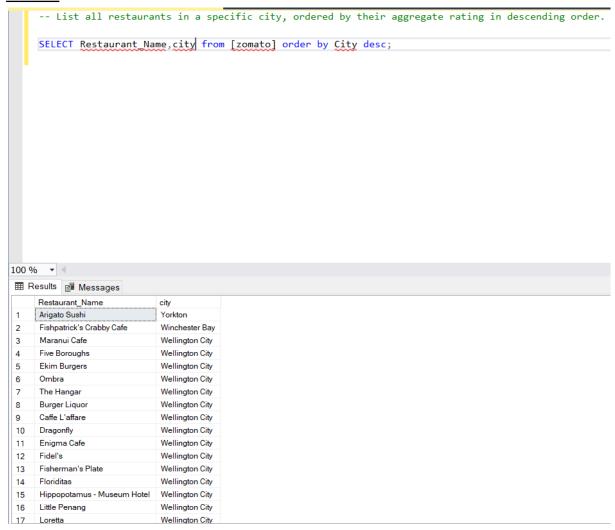
Question 6: Display those restaurant which have table booking.



Question 7: Display those restaurants whose rating is more than 3.

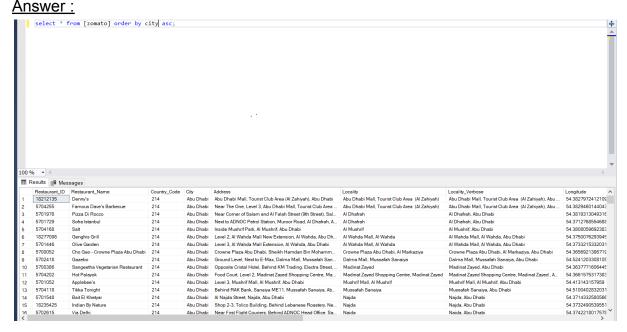


Question 8 : List all restaurants in a specific city, ordered by their aggregate rating in descending order.



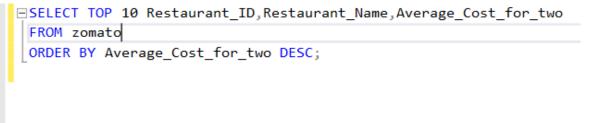
Question 9:

List all restaurants in a specific city (e.g., "Los Angeles") in alphabetical order



Question 10:

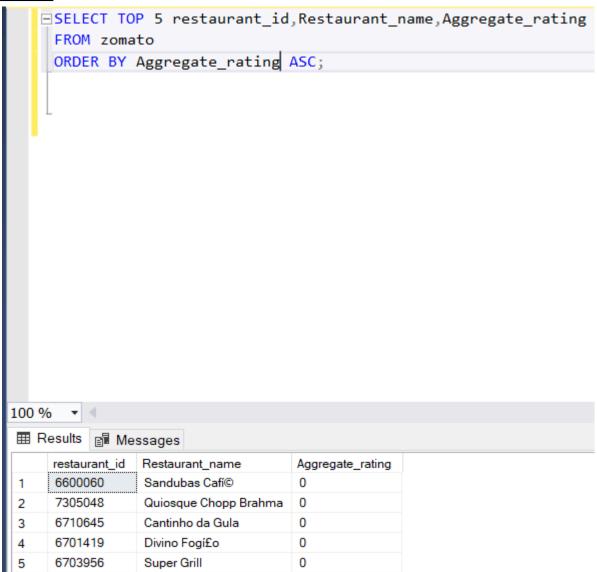
Retrieve the top 10 most expensive restaurants (based on Average_Cost_for_Two). Answer :





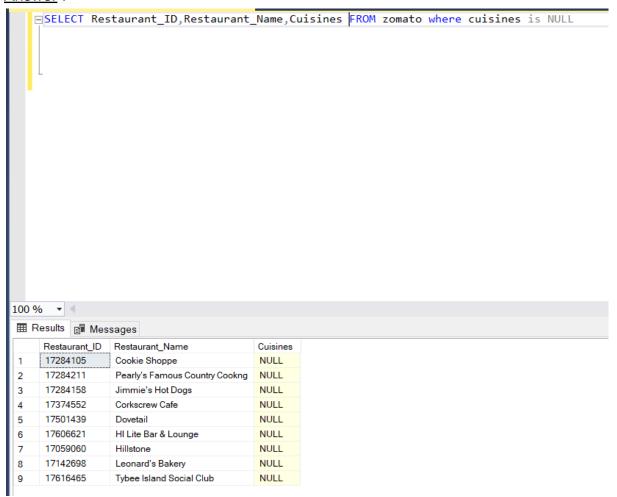
Question 11:

List the 5 lowest-rated restaurants



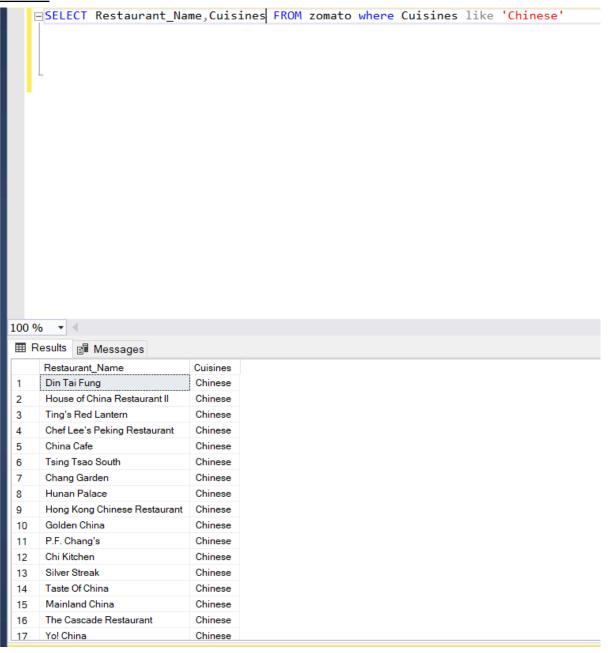
Question 12:

Retrieve all restaurants that have a NULL value in the Cuisines column



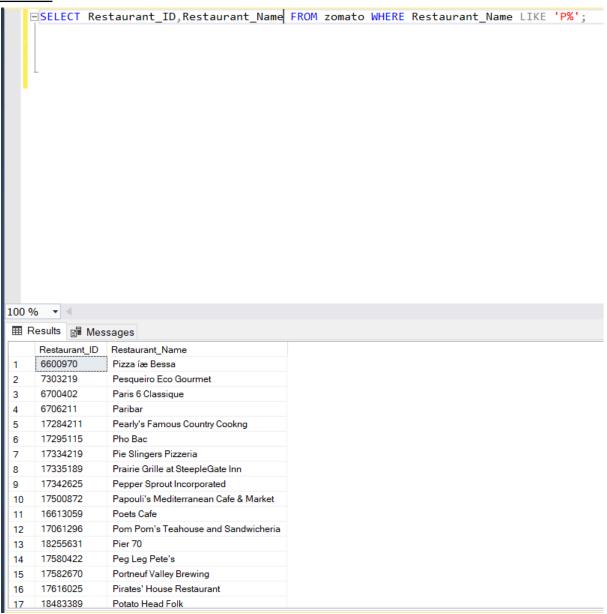
Question 13:

Find restaurants that serve Chinese cuisine



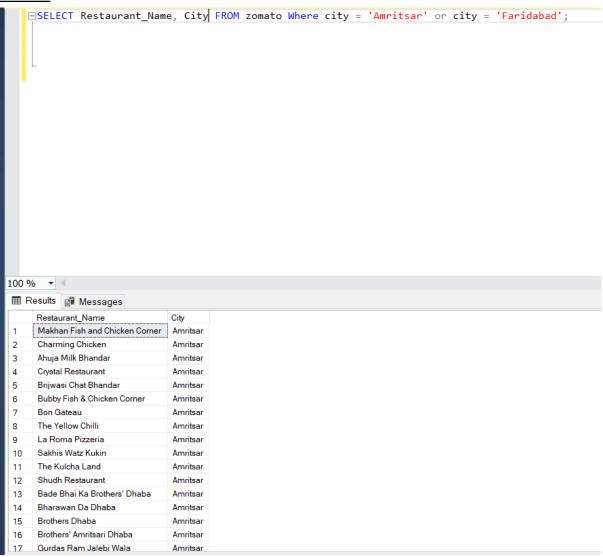
Question 14:

Retrieve all restaurants whose name starts with the letter "P"



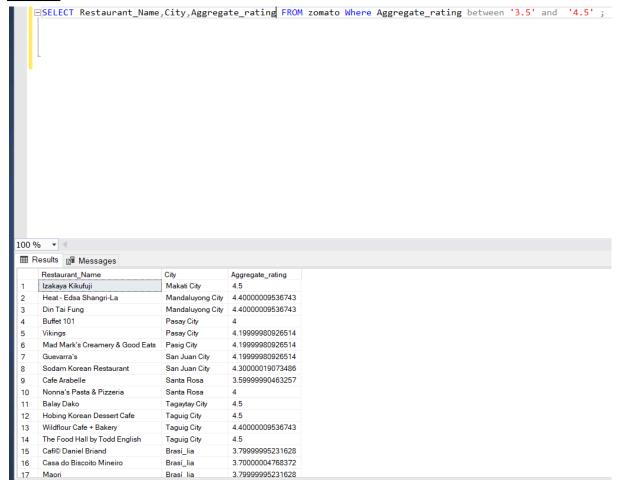
Question 15:

List all restaurants in either "Amritsar" or "Faridabad".



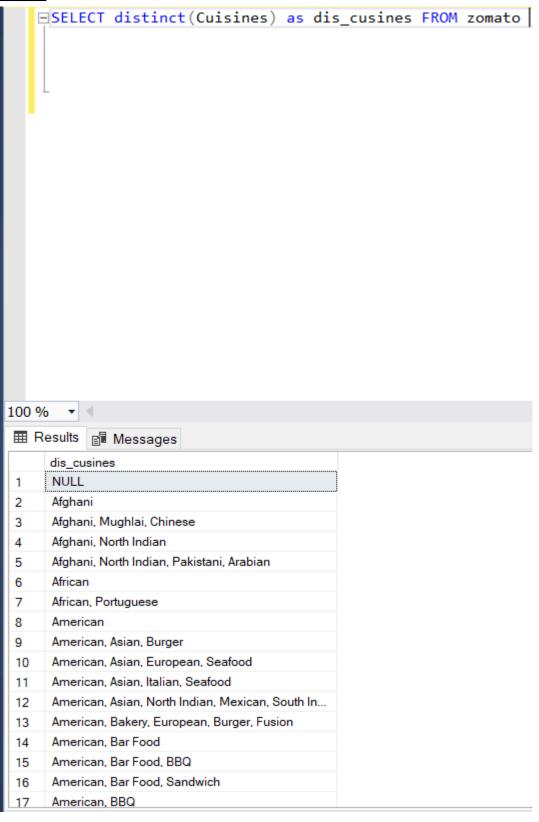
Question 16:

Retrieve restaurants with an Aggregate_Rating between 3.5 and 4.5.



Question 17:

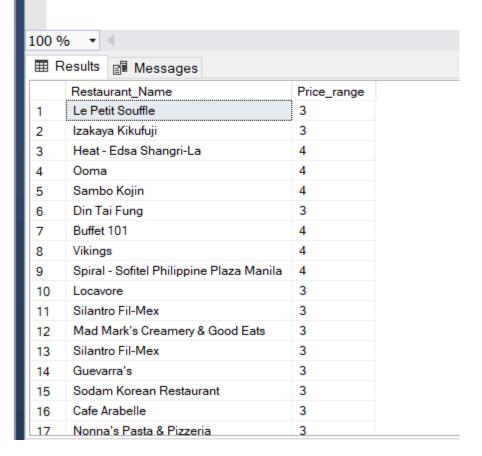
List all distinct cuisines available in the dataset.



Question 18:

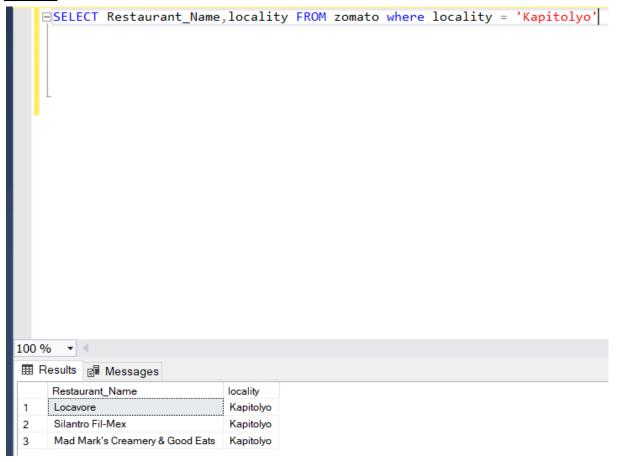
Find all restaurants with a price range greater than 2 but less than 5.

```
ESELECT Restaurant_Name, Price_range
FROM zomato
WHERE price_range > 2 AND price_range < 5;
```



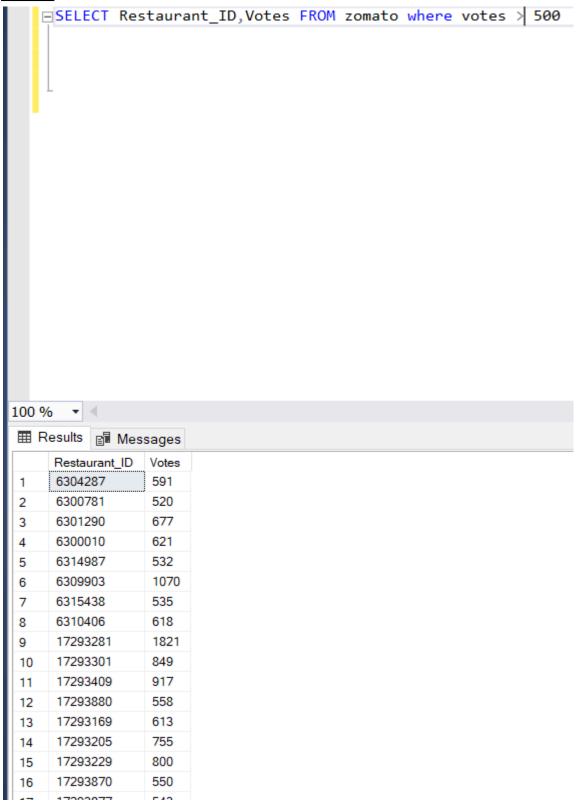
Question 19:

Retrieve restaurants located in a specific Locality (e.g., "Downtown")

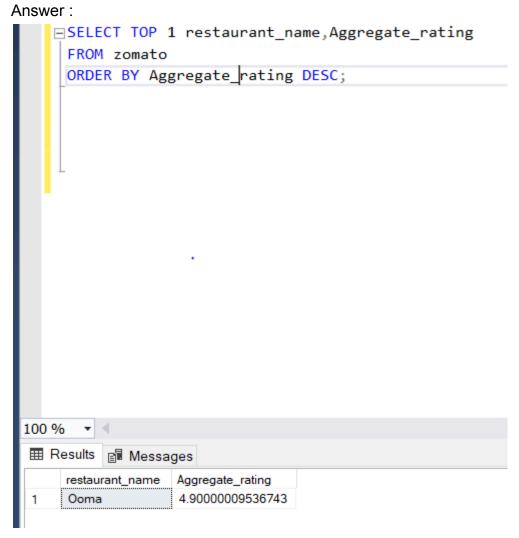


Question 20:

Retrieve all restaurants that have received more than 500 votes.

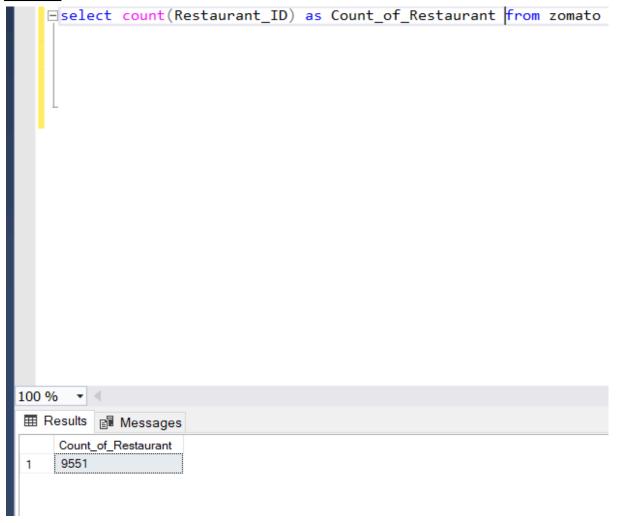


Question 21 : Find the highest-rated restaurant



Question 22:

Count the total number of restaurants in the dataset



Question 23:

Find the average cost for two people in "Abu Dhabi"



Question 24:

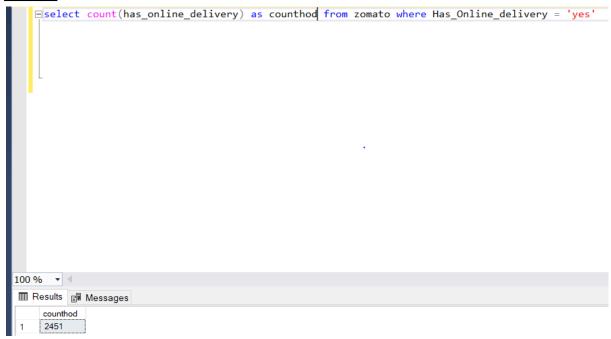
Retrieve the highest-rated restaurant in "Singapore"



Question 25:

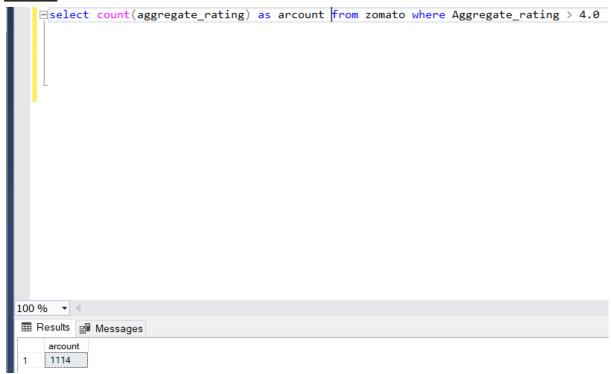
Count how many restaurants offer online delivery

Answer:



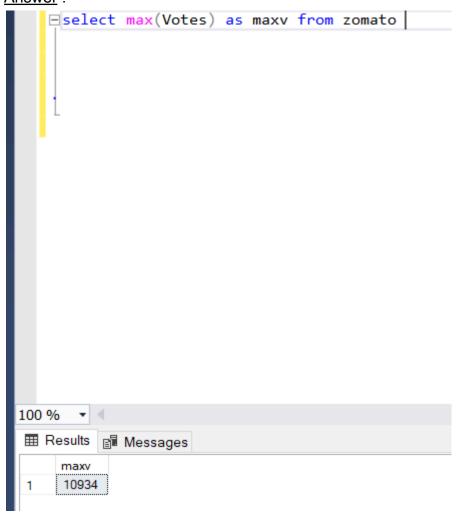
Question 26:

Count how many restaurants have an aggregate rating above 4.0



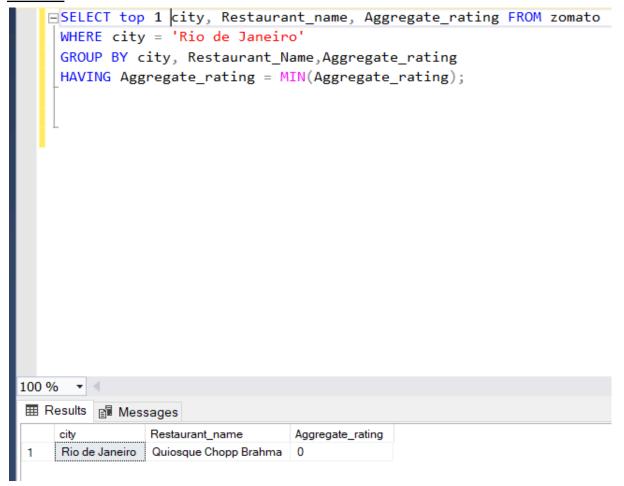
Question 27:

Find the maximum number of votes received by any restaurant <u>Answer</u>:



Question 28:

Retrieve the lowest-rated restaurant in "Rio de janerio"



Question 29:

Davenport

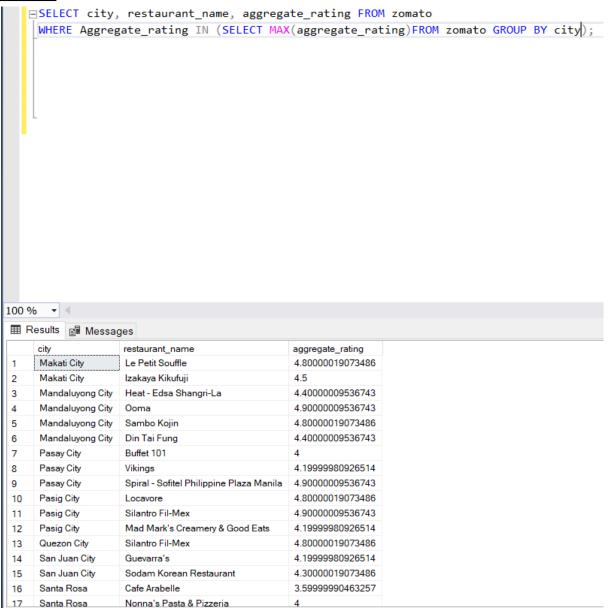
20

List the number of restaurants in each city, sorted in descending order.

```
□SELECT city, COUNT(*) AS restaurant_count
     FROM zomato
     GROUP BY city
     ORDER BY restaurant_count DESC;
100 % ▼ ◀
city
                  restaurant_count
     New Delhi
                  5473
 2
     Gurgaon
                   1118
     Noida
                   1080
 3
     Faridabad
                  251
 4
 5
     Ghaziabad
                   25
     Bhubaneshwar
 6
                  21
     Ahmedabad
                  21
 7
                   21
     Amritsar
     Guwahati
                   21
 9
     Lucknow
                  21
 10
 11
     Agra
                   20
     Sioux City
 12
                   20
     Savannah
                   20
 13
     Rest of Hawaii
 14
                   20
 15
     Jaipur
                   20
                   20
     Dubai
 16
```

Question 30:

Retrieve the restaurant with the highest aggregate rating in each city.



Question 31:

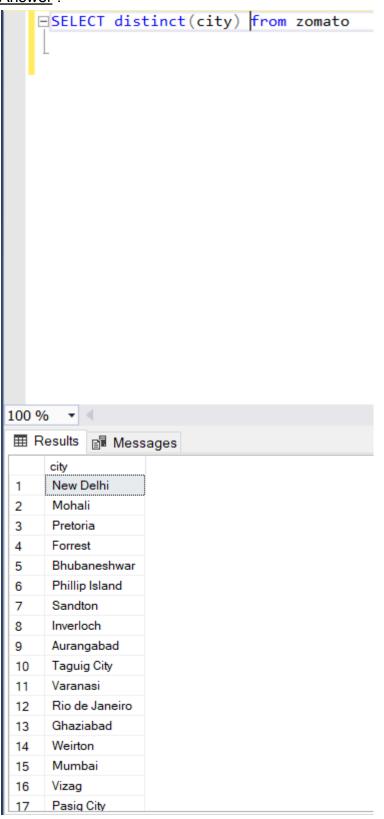
Find the city with the highest number of restaurants.

```
SELECT top 1 City, COUNT(*) AS Restaurant_Count
FROM zomato
GROUP BY City
ORDER BY Restaurant_Count DESC

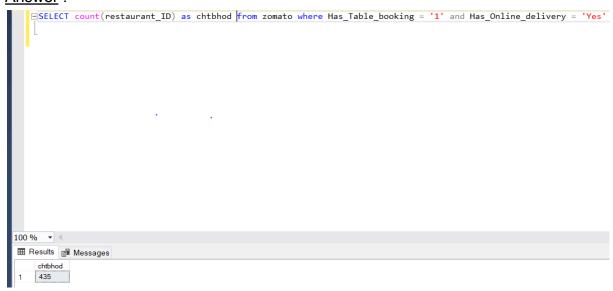
.

100 %
Results Messages
City Restaurant_Count
1 New Delhi 5473
```

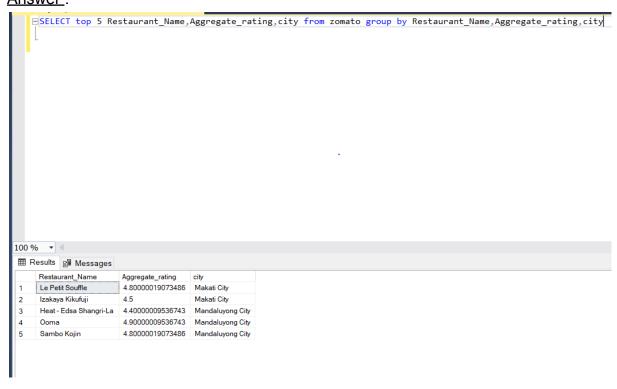
<u>Question 32</u>: Retrieve all unique cities where restaurants are located <u>Answer</u>:



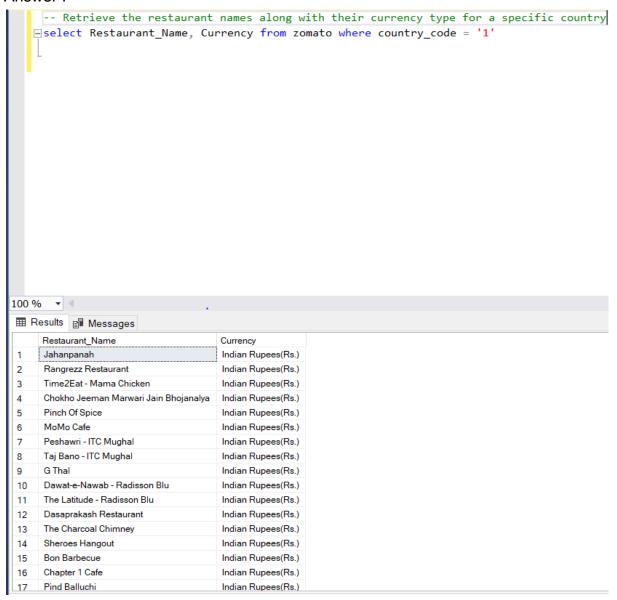
<u>Question 33</u>: Count the number of restaurants that offer both table booking and online delivery <u>Answer</u>:



Question 34: List the top 5 cities with the highest average aggregate rating Answer:

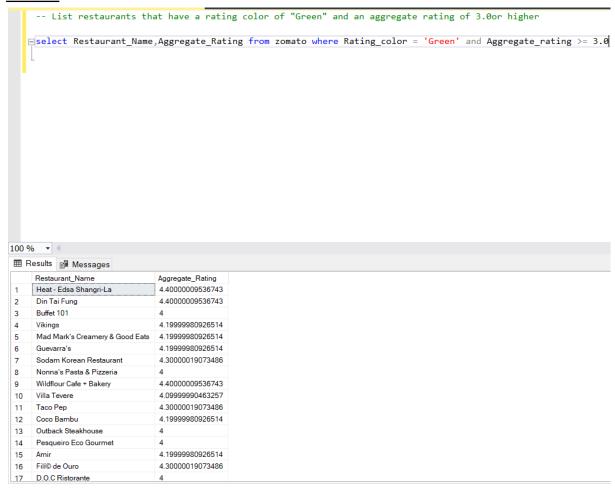


<u>Question 35</u>: Retrieve the restaurant names along with their currency type for a specific country



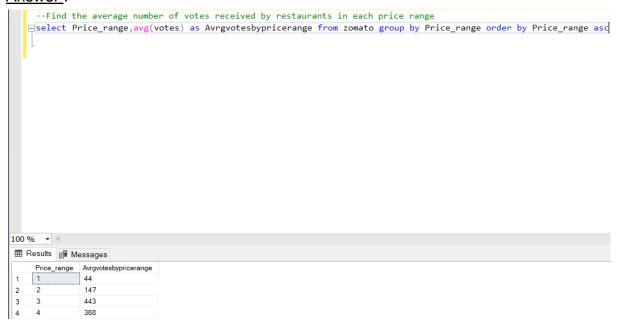
Question 36:

List restaurants that have a rating color of "Green" and an aggregate rating of 4.5 or higher <u>Answer</u>:

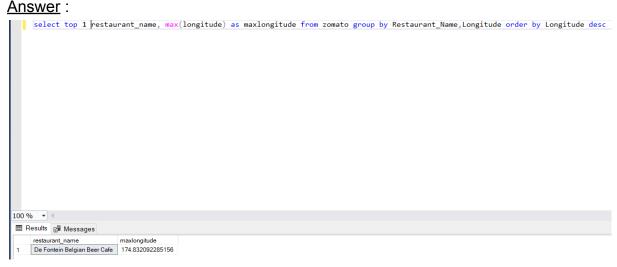


Question 36:

Find the average number of votes received by restaurants in each price range Answer:



Question 37: Identify the restaurant(s) with the highest longitude value

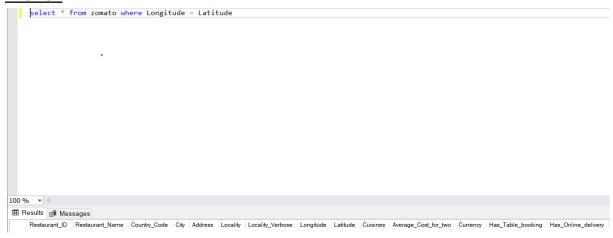


Question 38: Find the restaurant with the longest name

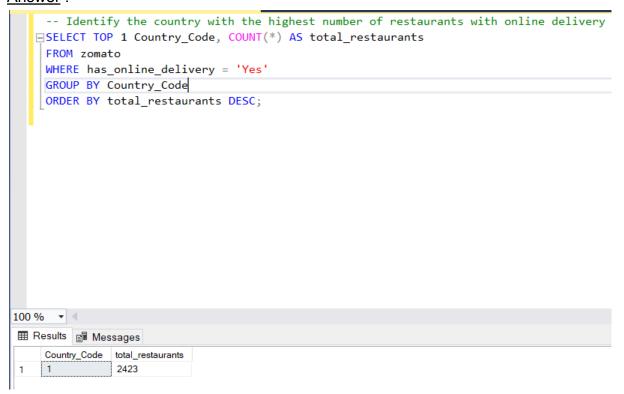
Answer:



<u>Question 39</u>: Retrieve the restaurant(s) that have the same latitude and longitude values <u>Answer</u>:



<u>Question 40</u>: Identify the country with the highest number of restaurants with online delivery Answer:



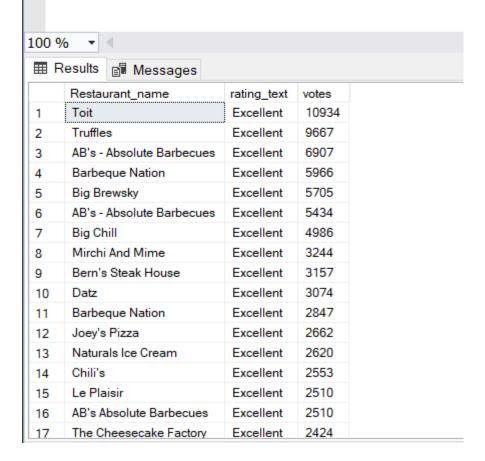
<u>Question 41</u>: Retrieve restaurants with a rating text of "Excellent" and sort them by votes in descending order.

```
□ SELECT Restaurant_name, rating_text, votes

FROM zomato

WHERE rating_text = 'Excellent'

ORDER BY votes DESC;
```



Question 42:

Find the percentage of restaurants that allow table booking in each city



Question 43:

Categorize restaurants into "Low", "Medium", and "High" based on their aggregate rating Answer :

```
□SELECT restaurant_name, aggregate_rating,

CASE

WHEN aggregate_rating >= 4 THEN 'High'

WHEN aggregate_rating >= 2 THEN 'Medium'

ELSE 'Low'

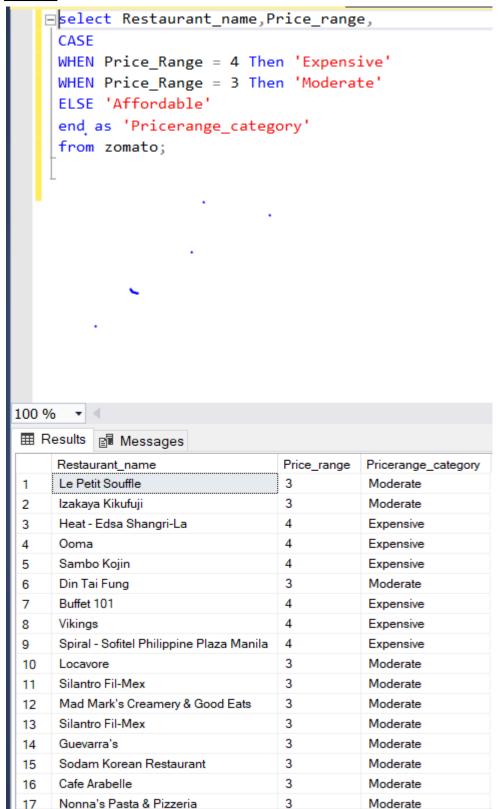
END AS rating_category

FROM zomato;
```

100 % ▼ ◀			
⊞ Results			
	restaurant_name	aggregate_rating	rating_category
1	Le Petit Souffle	4.80000019073486	High
2	Izakaya Kikufuji	4.5	High
3	Heat - Edsa Shangri-La	4.40000009536743	High
4	Ooma	4.90000009536743	High
5	Sambo Kojin	4.80000019073486	High
6	Din Tai Fung	4.40000009536743	High
7	Buffet 101	4	High
8	Vikings	4.19999980926514	High
9	Spiral - Sofitel Philippine Plaza Manila	4.90000009536743	High
10	Locavore	4.80000019073486	High
11	Silantro Fil-Mex	4.90000009536743	High
12	Mad Mark's Creamery & Good Eats	4.19999980926514	High
13	Silantro Fil-Mex	4.80000019073486	High
14	Guevarra's	4.19999980926514	High
15	Sodam Korean Restaurant	4.30000019073486	High
16	Cafe Arabelle	3.59999990463257	Medium
17	Nonna's Pasta & Pizzeria	4	High

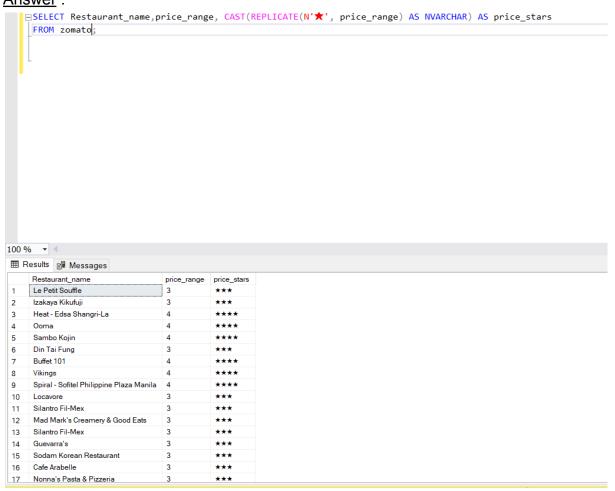
Question 44:

Display "Expensive" if the price range is 4, "Moderate" if it is 3, and "Affordable" otherwise Answer :



Question 45:

Modify the display format for price range to use stars (e.g., $\star\star\star$ for price range 3) Answer :



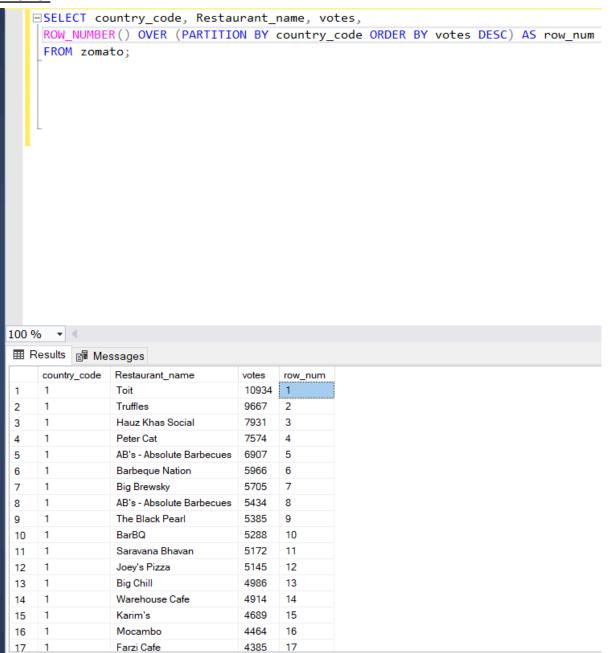
Question 46:

Rank restaurants within each city based on their aggregate rating.

```
□SELECT city,Restaurant_name, aggregate_rating,

     RANK() OVER (PARTITION BY city ORDER BY aggregate_rating DESC) AS rank_within_city
     FROM zomato;
100 % ▼ ◀
Restaurant_name
                                          aggregate_rating
                                                          rank_within_city
    Abu Dhabi Punjab Grill
                                          4.90000009536743 1
    Abu Dhabi Tamba
                                          4.69999980926514 2
   Abu Dhabi Denny's
                                          4.59999990463257 3
    Abu Dhabi Famous Dave's Barbecue
                                          4.59999990463257 3
    Abu Dhabi Genghis Grill
                                          4.59999990463257 3
    Abu Dhabi The Cheesecake Factory
                                          4.59999990463257 3
6
    Abu Dhabi Hot Palayok
    Abu Dhabi Cho Gao - Crowne Plaza Abu Dhabi 4.40000009536743 8
8
9
    Abu Dhabi Pizza Di Rocco
                                          4.40000009536743 8
10 Abu Dhabi Sofra Istanbul
                                          4.30000019073486 10
11 Abu Dhabi Indian By Nature
                                          4.30000019073486 10
12 Abu Dhabi P.F. Chang's
                                          4.19999980926514 12
13 Abu Dhabi Salt
                                          4.19999980926514 12
14 Abu Dhabi Olive Garden
                                          4.09999990463257 14
15 Abu Dhabi Gazebo
                                                           15
16 Abu Dhabi Via Delhi
                                          4
                                                           15
17 Abu Dhabi Applebee's
                                                           15
```

<u>Question 47</u>: Assign a row number to restaurants in each country, ordered by votes Answer:



Question 48:

Start a transaction to insert a new restaurant and rollback if the insert fails.

```
BEGIN TRY

INSERT INTO zomato (Restaurant_ID, Restaurant_Name, Country_Code, City, Address, Locality, Locality_Verbose, Longitude, Latitude, Cuisines, Average_Cost_for_two, Currency, Mas, ValueS (2944566, 'Social',1, 'Noida', 'Third floor, Dif Mall of Moida, Noida', 'NoIDA', 'Shop C-412, Third floor, Dif Mall of Moida, Noida', 28.5355, 77.3910, 'italian', 1200, 'Italian', 1200,
```

Question 49:

Update the aggregate rating of a restaurant and commit only if the update is successful Answer:

```
■BEGIN TRANSACTION;
   ⊟BEGIN TRY
         UPDATE zomato
         SET aggregate_rating = 4.8
         WHERE restaurant_name = 'social';
         -- Check if any row was updated
         IF @@ROWCOUNT > 0
         BEGIN
             COMMIT; -- Commit the transaction if the update was successful
             PRINT 'Update successful, transaction committed.';
         END
         ELSE
         BEGIN
             ROLLBACK; -- Rollback if no rows were updated
             PRINT 'No matching restaurant found, transaction rolled back.';
         END
     END TRY
     BEGIN CATCH
         ROLLBACK; -- Rollback if an error occurs
         PRINT 'Update failed, transaction rolled back.';
     END CATCH;
100 % ▼ ◀
Messages
   (2 rows affected)
   Update successful, transaction committed.
   Completion time: 2025-02-20T21:59:45.9543312+05:30
```

Question 50:

Delete a restaurant from the database, but rollback if it has more than 1000 votes.

```
■BEGIN TRANSACTION;
    DECLARE @Votes INT;
    -- Get the number of votes for the restaurant
    SELECT @Votes = votes FROM zomato WHERE Restaurant_name = 'High Rated Bistro';
   ⊟BEGIN
        DELETE FROM zomato WHERE Restaurant_Name = 'High Rated Bistro';
        IF @@ROWCOUNT > 0
        BEGIN
            COMMIT; -- Commit only if the deletion was successful
            PRINT 'Restaurant deleted successfully, transaction committed.';
        END
        ELSE
        BEGIN
            ROLLBACK; -- Rollback if no matching restaurant found
            PRINT 'No matching restaurant found, transaction rolled back.';
        END
    END
    ELSE
   BEGIN
        ROLLBACK; -- Rollback if votes are greater than 1000
        PRINT 'Restaurant has more than 1000 votes, transaction rolled back.';
    END
100 % ▼ ◀

    Messages

  Restaurant has more than 1000 votes, transaction rolled back.
  Completion time: 2025-02-20T22:02:14.8169724+05:30
```

Question 51:

Perform a batch update on multiple restaurants and commit changes only if all updates are successful

```
■BEGIN TRANSACTION;
   ⊟BEGIN TRY
        -- Update multiple restaurants
        UPDATE zomato
        SET aggregate_rating = 4.5
        WHERE price_range = 3;
        UPDATE zomato
        SET aggregate_rating = 4.8
        WHERE price_range = 4;
        -- Ensure updates were applied
        IF @@ROWCOUNT > 0
        BEGIN
             COMMIT; -- Commit if all updates are successful
             PRINT 'Batch update successful, transaction committed.';
        END
        ELSE
        BEGIN
             ROLLBACK; -- Rollback if no rows were updated
             PRINT 'No restaurants matched the criteria, transaction rolled back.';
         END
    END TRY
    BEGIN CATCH
        ROLLBACK; -- Rollback if any error occurs
        PRINT 'Batch update failed, transaction rolled back.';
    END CATCH;
100 % ▼ ◀

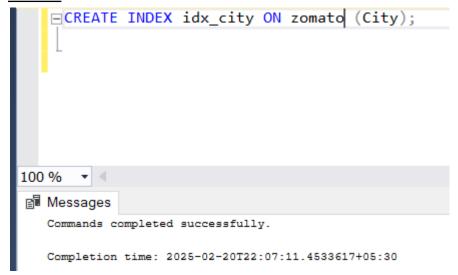
■ Messages

  (1408 rows affected)
   (586 rows affected)
  Batch update successful, transaction committed.
```

Question 52:

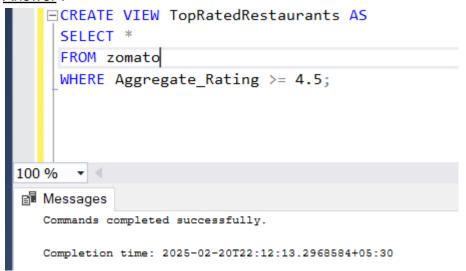
Create an index on the City column to speed up location-based searches.

Answer



Question 53:

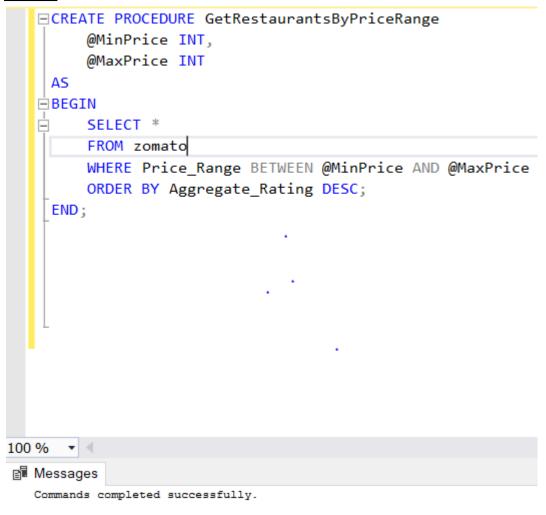
Create a view that displays only the top-rated restaurants.



Question 54:

Define a stored procedure to retrieve restaurants within a specific price range.

Answer:



Completion time: 2025-02-20T22:13:41.4568918+05:30

Question 55:

Write a function that returns the average rating of a given cuisine type <u>Answer</u>:

```
ECREATE FUNCTION GetAverageRatingByCuisine(@CuisineType VARCHAR(100))

RETURNS DECIMAL(3,2)

AS

BEGIN

DECLARE @AvgRating DECIMAL(3,2);

SELECT @AvgRating = AVG(Aggregate_Rating)

FROM zomato|

WHERE Cuisines LIKE '%' + @CuisineType + '%';

RETURN @AvgRating;
END;

100 % ▼ ■

Messages

Commands completed successfully.

Completion time: 2025-02-20122:15:33.4347345+05:30
```

Question 56:

Update the aggregate rating of a specific restaurant <u>Answer</u>:

```
SET Aggregate_Rating = 4.8
WHERE Restaurant_ID = 6304287

100 %

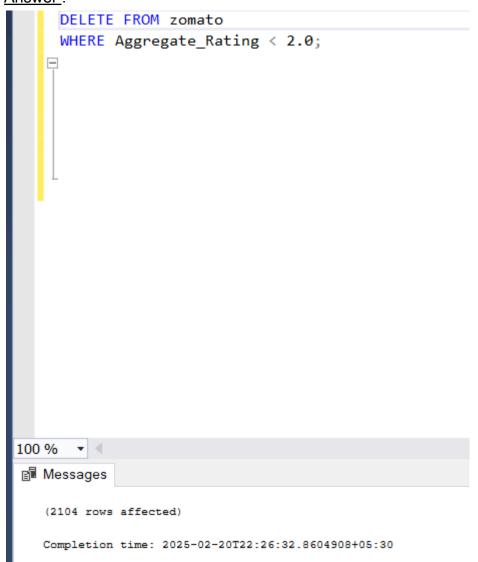
■ Messages

(1 row affected)

Completion time: 2025-02-20722:23:32.1321275+05:30
```

Question 57:

Delete a restaurant record that has an aggregate rating below 2.0 <u>Answer</u>:



Question 58:

Change all "Unknown" cuisines names to "Not Specified".

