

1. Write a sql query to analyze which recipe categories (like desserts, vegan, etc.) are most popular (top 10).

The screenshot shows the Google Cloud BigQuery Studio interface. On the left is a navigation menu with options like Analysis, Data transfers, Scheduled queries, Analytics Hub, Dataform, Partner Center, Migration, Assessment, SQL translation, Monitoring, and Release Notes. The main area displays a SQL query in a text editor, which has been executed. Below the editor, the 'Query results' section is active, showing a table with 7 rows of data. The table has columns for Row, RecipeCategory, RecipeCount, AverageRating, and TotalReviews. The results are sorted by RecipeCount in descending order, limited to the top 10.

Query results

Row	RecipeCategory	RecipeCount	AverageRating	TotalReviews
1	Dessert	62072	4.601337074370...	143094.0
2	Lunch/Snacks	32586	4.659264305177...	97604.0
3	One Dish Meal	31345	4.553101849233...	102911.0
4	Vegetable	27231	4.656776289616...	75296.0
5	Breakfast	21101	4.6369042256059	61115.0
6	Beverages	16076	4.735531552018...	35698.0
7	Chicken	13249	4.615305466237...	50868.0

```
SELECT
  RecipeCategory,
  COUNT(*) AS RecipeCount,
  AVG(AggregatedRating) AS AverageRating,
  SUM(ReviewCount) AS TotalReviews
FROM
  archiveRecipe.Recipes
GROUP BY
  RecipeCategory
ORDER BY
  RecipeCount DESC, AverageRating DESC LIMIT 10;
```

Result:

RecipeCategory	RecipeCount	AverageRating	TotalReviews
Dessert	62072	4.6013370743704467	143094.0
Lunch/Snacks	32586	4.6592643051771123	97604.0
One Dish Meal	31345	4.5531018492337294	102911.0
Vegetable	27231	4.6567762896167633	75296.0
Breakfast	21101	4.6369042256059	61115.0
Beverages	16076	4.7355315520181929	35698.0
Chicken	13249	4.6153054662379462	50868.0
Meat	13131	4.591469757764906	36643.0
Breads	12804	4.5910228108903581	39921.0
Pork	12603	4.6581945037733217	46075.0

2. Write a query to assess the average nutritional values (like carbohydrates, protein) across different recipe categories.

The screenshot shows the Google Cloud BigQuery Studio interface. The query editor on the right contains the following SQL query:

```

SELECT
  RecipeCategory,
  AVG(CarbohydrateContent) AS AverageCarbohydrates,
  AVG(ProteinContent) AS AverageProtein
FROM
  archiveRecipe.Recipes
GROUP BY
  RecipeCategory LIMIT 10;
  
```

Below the query editor, the 'Query results' section is displayed. It includes a table with 4 columns: Row, RecipeCategory, AverageCarbohydrates, and AverageProtein. The table shows the top 7 results.

Row	RecipeCategory	AverageCarbohydrates	AverageProtein
1	Cheese	30.22154337036...	19.65680690144...
2	Breakfast	39.00562058670...	13.87851760580...
3	Lunch/Snacks	36.36086049223...	20.88606763640...
4	Stocks	28.44778378378...	19.39589189189...
5	Dessert	85.53006991880...	8.595624436138...
6	Vegetable	27.28843964599...	9.214149315118...
7	Ice Cream	72.34631578947...	9.803157894736...

```

SELECT
  RecipeCategory,
  AVG(CarbohydrateContent) AS AverageCarbohydrates,
  AVG(ProteinContent) AS AverageProtein
FROM
  archiveRecipe.Recipes
GROUP BY
  RecipeCategory LIMIT 10;
  
```

RecipeCategory	AverageCarbohydrates	AverageProtein
Cheese	30.221543370361648	19.656806901441762
Breakfast	39.005620586702143	13.878517605800649
Lunch/Snacks	36.360860492235965	20.886067636408217
Stocks	28.447783783783798	19.395891891891903
Dessert	85.530069918804358	8.5956244361386869
Vegetable	27.288439645991627	9.2141493151188136
Ice Cream	72.346315789473692	9.8031578947368452
Spinach	24.9582142857143	13.899846938775514
One Dish Meal	44.97021853565159	29.636174828521369
European	45.138455284552819	23.052764227642268

3. Write a sql query to Identify top 10 authors who have contributed the most recipes.

The screenshot shows the Google Cloud BigQuery Studio interface. The left sidebar contains navigation options like Analysis, Data transfers, Scheduled queries, Analytics Hub, Dataform, Partner Center, Migration, Assessment, SQL translation, Administration, Monitoring, and Release Notes. The main editor area displays a SQL query in a file named 'Untitled'. The query is as follows:

```
16 AVG(CarbohydrateContent) AS AverageCarbohydrates,  
17 AVG(ProteinContent) AS AverageProtein  
18 FROM archiveRecipe.Recipes GROUP BY RecipeCategory LIMIT 10;  
19  
20 --Write a sql query to Identify top 10 authors have contributed the most recipes.  
21 SELECT AuthorId, AuthorName, COUNT(*) AS NumberOfRecipes FROM archiveRecipe.Recipes GROUP BY AuthorId, AuthorName ORDER BY NumberOfRecipes DESC  
22 LIMIT 10;
```

Below the query editor, the 'Query results' section is visible, showing a table with 10 rows of data. The table has columns for Row, AuthorId, AuthorName, and NumberOfRecipes. The results are as follows:

Row	AuthorId	AuthorName	NumberOfRecipes
1	37779	ratherbeswimmin	7742
2	283251	dicentra	6375
3	89831	Kittencalrecipezazz	3926
4	57042	internetnut	3435
5	883095	Chef mariajane	3399
6	37449	Sharon123	3301
7	1533	Dancer	3032
8	1072593	gailanng	2841
9	287420	English_Rose	2260
10	6357	Charishma_Ramchanda	2088

```
SELECT  
  AuthorId,  
  AuthorName,  
  COUNT(*) AS NumberOfRecipes  
FROM  
  archiveRecipe.Recipes  
GROUP BY  
  AuthorId, AuthorName  
ORDER BY  
  NumberOfRecipes DESC  
LIMIT 10;
```

AuthorId	AuthorName	NumberOfRecipes
37779	ratherbeswimmin	7742
283251	dicentra	6375
89831	Kittencalrecipezazz	3926
57042	internetnut	3435
883095	Chef mariajane	3399
37449	Sharon123	3301
1533	Dancer	3032
1072593	gailanng	2841
287420	English_Rose	2260
6357	Charishma_Ramchanda	2088

4. Write a sql query to Determine the average preparation and cooking times across various types of recipes.

```
SELECT RecipeCategory, AVG(PrepTimeInMinutes) AS AveragePrepTime,
AVG(CookTimeInMinutes) AS AverageCookTime FROM archiveRecipe.Recipes WHERE
PrepTimeInMinutes IS NOT NULL AND CookTimeInMinutes IS NOT NULL GROUP BY
RecipeCategory LIMIT 25;
```

The screenshot shows the Google Cloud BigQuery Studio interface. The left sidebar contains navigation options like Analysis, Data transfers, Scheduled queries, Analytics Hub, Dataform, Partner Center, Migration, Assessment, SQL translation, Administration, Monitoring, and Release Notes. The main area displays a SQL query in the 'Untitled' tab, which is the same query as provided in the previous block. Below the query editor, the 'Query results' section is visible, showing a table with 11 rows of data. The table has columns for Row, RecipeCategory, AveragePrepTime, and AverageCookTime. The results are displayed in a tabular format with a 'RESULTS' tab selected. The bottom of the interface shows 'Job history' and a 'REFRESH' button.

Row	RecipeCategory	AveragePrepTime	AverageCookTime
1	Cheese	23.87378870243...	38.40191444103...
2	Breakfast	27.34003127813...	39.56945168475...
3	Lunch/Snacks	42.58758362486...	57.97462100288...
4	Stocks	35.20108108108...	110.82918918918...
5	Dessert	35.73260085062...	56.29934592086...
6	Vegetable	43.02827659652...	95.62278285777...
7	Ice Cream	90.09824561403...	85.24912280701...
8	Spinach	21.67602040816...	29.36938775510...
9	One Dish Meal	25.44514276599...	75.72933482214...
10	European	52.48482384823...	117.8940379403...
11	Brazilian	23.59615384615...	23.73076923076...

RecipeCategory	AveragePrepTime	AverageCookTime
Cheese	23.87378870243438938	38.4019144410305
Breakfast	27.34003127813846539	39.569451684754242
Lunch/Snacks	42.58758362486948857	57.97462100288476
Stocks	35.201081081081064110	82918918918918
Dessert	35.73260085062514756	299345920865861
Vegetable	43.02827659652606295	6227828577726
Ice Cream	90.09824561403506585	249122807017528
Spinach	21.67602040816326829	369387755102061
One Dish Meal	25.44514276599138175	7293348221405
European	52.484823848238449117	89403794037948
Brazilian	23.59615384615384723	730769230769234
Pork	66.03364278346435996	650956121558465
Pumpkin	22.18439716312056861	517730496453886
Steak	52.66224552745215760	852251696483684
Cauliflower	26.24177396280400747	842632331902692
< 60 Mins	18.82652536269164	26.789998971087606
Breads	53.29795376444862945	647688222430624
Grains	29.46666666666666952	563596491228061
Low Protein	165.58952423833114	182.11271199159546
Spaghetti	16.621447721179621	52.975335120643408
Potato	24.27976080956762	53.352989880404785

Meatballs 20.215384615384618 70.535897435897425
 Meat 60.033127713045332 979.560581829259
 Meatloaf 21.052873563218387 67.659770114942546
 Savory Pies 29.610147299509006 47.157774140752892

5. Write a sql query to display the nutritional content of 10 highest popular recipes

SELECT Name, AggregatedRating,
 CarbohydrateContent,ProteinContent,FiberContent,FatContent FROM
 archiveRecipe.Recipes ORDER BY AggregatedRating DESC LIMIT 10;

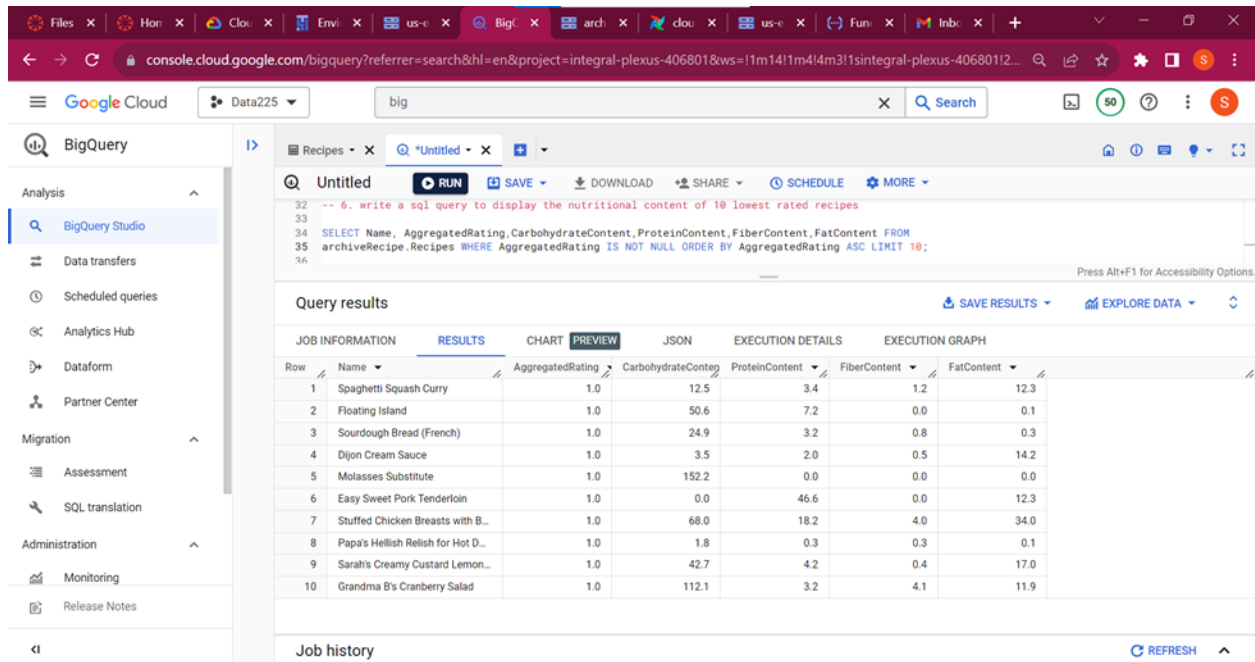
The screenshot shows the Google Cloud BigQuery Studio interface. The left sidebar contains navigation options like Analysis, Data transfers, Scheduled queries, Analytics Hub, Dataform, Partner Center, Migration, Assessment, SQL translation, Administration, Monitoring, and Release Notes. The main area displays a SQL query in a text editor, which has been executed. Below the editor, the 'Query results' section shows a table with 10 rows of data. The table has columns for Name, AggregatedRating, CarbohydrateContent, ProteinContent, FiberContent, and FatContent. The results are sorted by AggregatedRating in descending order.

Row	Name	AggregatedRating	CarbohydrateContent	ProteinContent	FiberContent	FatContent
1	Spicy Cheeseburger Soup	5.0	33.4	22.6	3.3	27.8
2	Cheesy Olive Garlic Bread	5.0	33.8	6.9	1.8	19.7
3	No Bake Chocolate Oat Cookies	5.0	25.2	2.3	1.5	2.0
4	Kahlua Cake	5.0	726.4	90.3	38.0	380.8
5	Bread and Butter Pickles	5.0	126.8	4.1	3.9	0.9
6	Red Beans Served With Rice	5.0	53.5	35.8	13.0	26.7
7	Loretta's Coleslaw	5.0	8.8	1.8	2.9	1.4
8	Hawaiian Sweet Bread for the ...	5.0	367.2	61.5	13.8	64.5
9	Garlic Grits Southern Style	5.0	19.2	6.4	0.3	17.7
10	All-Purpose Crock Pot Chicken	5.0	0.0	21.4	0.0	17.3

Name	AggregatedRating	CarbohydrateContent	ProteinContent	FiberContent	FatContent
Spicy Cheeseburger Soup	5.0	33.4	22.6	3.3	27.8
Cheesy Olive Garlic Bread	5.0	33.8	6.9	1.8	19.7
No Bake Chocolate Oat Cookies	5.0	25.2	2.3	1.5	2.0
Kahlua Cake	5.0	726.4	90.3	38.0	380.8
Bread and Butter Pickles	5.0	126.8	4.1	3.9	0.9
Red Beans Served With Rice	5.0	53.5	35.8	13.0	26.7
Loretta's Coleslaw	5.0	8.8	1.8	2.9	1.4
Hawaiian Sweet Bread for the Bread Machine	5.0	367.2	61.5	13.8	64.5
Garlic Grits Southern Style	5.0	19.2	6.4	0.3	17.7
All-Purpose Crock Pot Chicken	5.0	0.0	21.4	0.0	17.3

6. Write a sql query to display the nutritional content of 10 lowest rated recipes

```
SELECT Name, AggregatedRating,
CarbohydrateContent, ProteinContent, FiberContent, FatContent FROM
archiveRecipe.Recipes WHERE AggregatedRating IS NOT NULL ORDER BY
AggregatedRating ASC LIMIT 10;
```



The screenshot shows the Google Cloud BigQuery Studio interface. The query editor on the right contains the following SQL query:

```
-- 6. write a sql query to display the nutritional content of 10 lowest rated recipes
SELECT Name, AggregatedRating, CarbohydrateContent, ProteinContent, FiberContent, FatContent FROM
archiveRecipe.Recipes WHERE AggregatedRating IS NOT NULL ORDER BY AggregatedRating ASC LIMIT 10;
```

The query results are displayed in a table with the following columns: Row, Name, AggregatedRating, CarbohydrateContent, ProteinContent, FiberContent, and FatContent. The results are sorted by AggregatedRating in ascending order.

Row	Name	AggregatedRating	CarbohydrateContent	ProteinContent	FiberContent	FatContent
1	Spaghetti Squash Curry	1.0	12.5	3.4	1.2	12.3
2	Floating Island	1.0	50.6	7.2	0.0	0.1
3	Sourdough Bread (French)	1.0	24.9	3.2	0.8	0.3
4	Dijon Cream Sauce	1.0	3.5	2.0	0.5	14.2
5	Molasses Substitute	1.0	152.2	0.0	0.0	0.0
6	Easy Sweet Pork Tenderloin	1.0	0.0	46.6	0.0	12.3
7	Stuffed Chicken Breasts with B...	1.0	68.0	18.2	4.0	34.0
8	Papa's Hellish Relish for Hot D...	1.0	1.8	0.3	0.3	0.1
9	Sarah's Creamy Custard Lemon...	1.0	42.7	4.2	0.4	17.0
10	Grandma B's Cranberry Salad	1.0	112.1	3.2	4.1	11.9

7. Write a sql query to determine how different factors like cooking time influence user ratings.

```
SELECT Name, AVG(AggregatedRating) AS AverageRating, AVG(ReviewCount) AS
AverageReviewCount, AVG(CookTimeInMinutes) AS AverageCookTime, AVG(PrepTimeInMinutes) AS
AveragePrepTime, FROM archiveRecipe.Recipes
GROUP BY Name ORDER BY AverageRating DESC, AverageReviewCount DESC LIMIT 10;
```

The screenshot displays the Google Cloud BigQuery Studio interface. On the left, the navigation sidebar includes sections for Analysis (BigQuery Studio, Data transfers, Scheduled queries, Analytics Hub, Dataform, Partner Center), Migration (Assessment, SQL translation), and Administration (Monitoring, Release Notes). The central Explorer pane shows a project named 'integral-plexus-406801' with a search bar and a list of resources including 'archiveRecipe', 'Cleandata', 'HistoryRecipe', 'Recipes', 'Result', 'realtime_data_load', and 'realtime_data_food'. The right pane features a SQL editor with a query titled 'Untitled' and a 'Query results' table. The query is designed to find recipes with low calorie count. The results table contains 10 rows of data, including recipe names, average ratings, review counts, cook times, and prep times.

```

35
36 -- 7. Write a sql query to determine how different factors like cooking time influence user ratings.
37
38 SELECT Name, AVG(AggregatedRating) AS AverageRating, AVG(ReviewCount) AS AverageReviewCount, AVG
39 (CookTimeInMinutes) AS AverageCookTime, AVG(PrepTimeInMinutes) AS AveragePrepTime, FROM archiveRecipe.Recipes
40 GROUP BY Name ORDER BY AverageRating DESC, AverageReviewCount DESC LIMIT 10;

```

Row	Name	AverageRating	AverageReviewCount	AverageCookTime	AveragePrepTime
1	To Die for Crock Pot Roast	5.0	1692.0	540.0	5.0
2	Creamy Cajun Chicken Pasta	5.0	1586.0	15.0	10.0
3	Best Ever Banana Cake With Cr...	5.0	1409.0	60.0	15.0
4	Yes, Virginia There is a Great M...	5.0	1384.0	60.0	20.0
5	Jo Mama's World Famous Spa...	5.0	1326.0	60.0	20.0
6	"Whatever Floats Your Bo...	5.0	1284.0	25.0	10.0
7	Kittencal's Italian Melt-In-Your...	5.0	1068.0	30.0	20.0
8	Japanese Mum's Chicken	5.0	973.0	40.0	5.0
9	Creamy Burrito Casserole	5.0	940.0	30.0	20.0
10	Kittencal's Moist Cheddar-Garlic...	5.0	908.0	40.0	20.0

8. Write a SQL Query to find recipes with low calorie count

```

SELECT
    Name,
    CalorieContent
FROM
    Recipes
WHERE
    CalorieContent < 300
ORDER BY
    CalorieContent;

```

Google Cloud Data225 big Search

BigQuery Explorer + ADD

Analysis

- BigQuery Studio
- Data transfers
- Scheduled queries
- Analytics Hub
- Dataform
- Partner Center

Migration

- Assessment
- SQL translation

Administration

- Monitoring
- Release Notes

Viewing resources.

SHOW STARRED ONLY

- Integral-plexus-406801
 - External connections
 - archiveRecipe
 - Cleandata
 - HistoryRecipe
 - Recipes
 - Result
 - realtime_data_load
 - realtime_data_food

SUMMARY

Nothing currently selected

Untitled

```

39 GROUP BY Name ORDER BY AverageRating DESC, AverageReviewCount DESC LIMIT 10;
40
41 -- 8. Sql query to fetch recipes with low calories count.
42 SELECT Name,Calories FROM archiveRecipe.Recipes WHERE Calories < 300 AND Calories != 0 ORDER BY Calories
LIMIT 10;

```

Query results

SAVE RESULTS EXPLORE DATA

JOB INFORMATION RESULTS CHART PREVIEW JSON EXECUTION DETAILS EXECUTION GRAPH

Row	Name	Calories
1	Flowery Black Tea	0.1
2	Vanilla Scented Mulled Cider	0.1
3	Cider Bellini	0.1
4	Oolong Tea for Weight Loss	0.1
5	Adzuki Beans Ala Kai	0.1
6	Spicy Chicken Sauce	0.1
7	Krusteaz 1 Point Muffins	0.1
8	Cinnamon Tea(Sudan)	0.1
9	White Rose Tea	0.1
10	Hajar's Winter Applesauce	0.1

Job history REFRESH

Name Calories

Flowery Black Tea 0.1

Vanilla Scented Mulled Cider 0.1

Cider Bellini 0.1

Oolong Tea for Weight Loss 0.1

Adzuki Beans Ala Kai 0.1

Spicy Chicken Sauce 0.1

Krusteaz 1 Point Muffins 0.1

Cinnamon Tea(Sudan) 0.1

White Rose Tea 0.1

Hajar's Winter Applesauce 0.1

9. Write a sql query to fetch recipes with low fat content

```

SELECT Name,FatContent FROM archiveRecipe.Recipes WHERE FatContent < 10 AND FatContent
!= 0 ORDER BY FatContent LIMIT 20;

```


Google Cloud

Data225

big

Search

BigQuery

Analysis

- BigQuery Studio
- Data transfers
- Scheduled queries
- Analytics Hub
- Dataform
- Partner Center

Migration

- Assessment
- SQL translation

Administration

- Monitoring
- Release Notes

Explorer

Type to search

Viewing resources.
SHOW STARRED ONLY

integral-plexus-406801

- External connections
- archiveRecipe
 - Cleandata
 - HistoryRecipe
 - Recipes
 - Result
- realtime_data_load
 - realtime_data_food

SUMMARY

Nothing currently selected

Recipes

Untitled

RUN

SAVE

DOWNLOAD

SHARE

SCHEDULE

MORE

Query complete

```
42 SELECT Name, Calories FROM archiveRecipe.Recipes WHERE Calories < 300 AND Calories != 0 ORDER BY Calories
43 LIMIT 10;
44 -- 9. sql query to fetch recipes with low fat content
45 SELECT Name, FatContent FROM archiveRecipe.Recipes WHERE FatContent < 10 AND FatContent != 0 ORDER BY
FatContent LIMIT 20;
```

Query results

JOB INFORMATION

RESULTS

CHART

PREVIEW

JSON

EXECUTION DETAILS

EXECUTION GRAPH

Row	Name	FatContent
1	Ski Grog	0.1
2	Brita® Mocktail	0.1
3	Raspberry Flirtini	0.1
4	Mint Stevia Drink	0.1
5	Fig Brandy	0.1
6	Frozen Daiquiris	0.1
7	Schnitzel and Mushroom Zig Z...	0.1
8	Yummy Sugar Free Ketchup	0.1
9	Sangria Ice	0.1
10	Hot & Spicy Dining Sauce	0.1

Results per page: 50 1 - 20 of 20

Job history

REFRESH