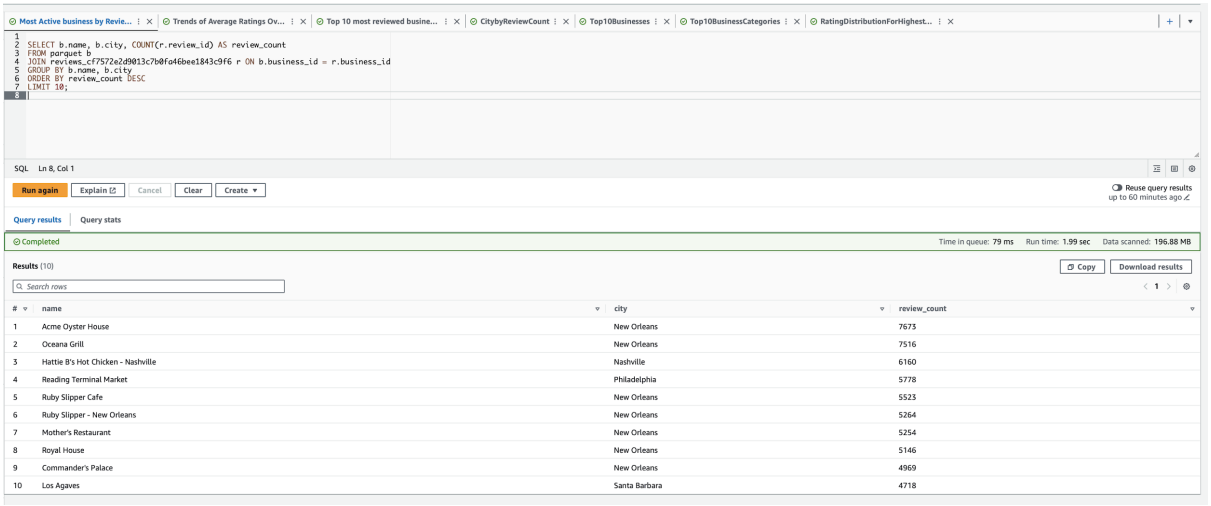
Business Analysis Using Athena Queries

1. Most Active Business by Review Count

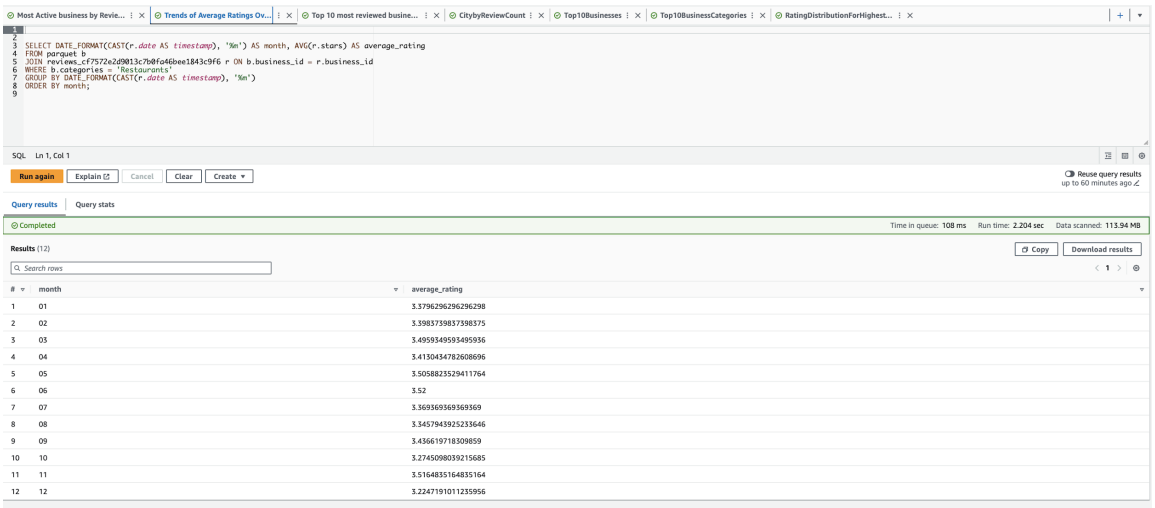
```
SELECT b.name, b.city, COUNT(r.review_id) AS review_count
FROM parquet b
JOIN reviews_cf7572e2d9013c7b0fa46bee1843c9f6 r ON b.business_id = r.business_id
GROUP BY b.name, b.city
ORDER BY review_count DESC
LIMIT 10;
```



#	name	city	review_count
1	Acme Oyster House	New Orleans	7673
2	Oceana Grill	New Orleans	7516
3	Hattie B's Hot Chicken - Nashville	Nashville	6160
4	Reading Terminal Market	Philadelphia	5778
5	Ruby Slipper Cafe	New Orleans	5523
6	Ruby Slipper - New Orleans	New Orleans	5264
7	Mother's Restaurant	New Orleans	5254
8	Royal House	New Orleans	5146
9	Commander's Palace	New Orleans	4969
10	Los Agaves	Santa Barbara	4718

2. Trends of Average Ratings Over Time for a Specific Category

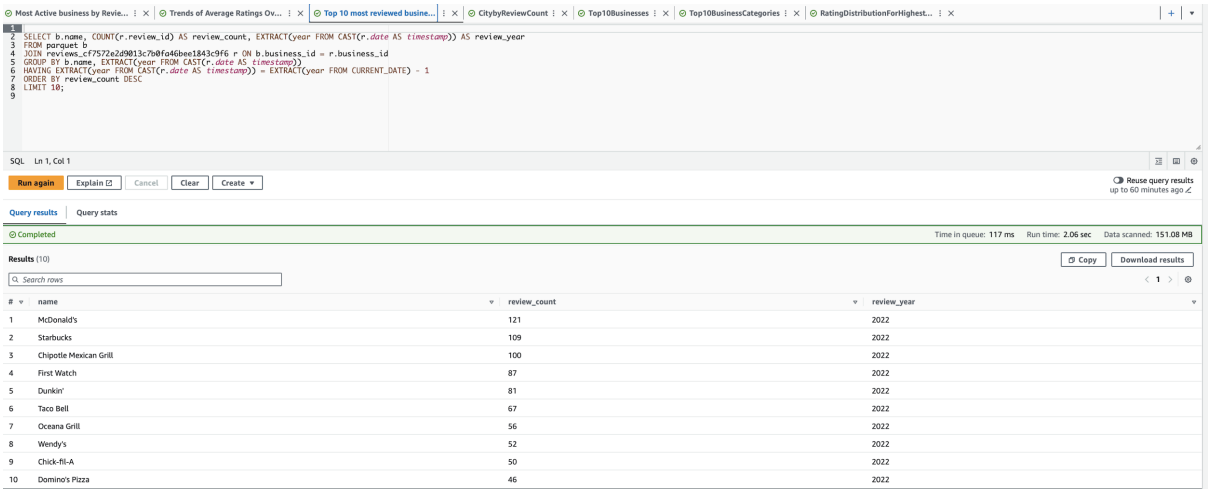
```
SELECT DATE_FORMAT(CAST(r.date AS timestamp), '%m') AS month, AVG(r.stars) AS average_rating
FROM parquet b
JOIN reviews_cf7572e2d9013c7b0fa46bee1843c9f6 r ON b.business_id = r.business_id
WHERE b.categories = 'Restaurants'
GROUP BY DATE_FORMAT(CAST(r.date AS timestamp), '%m')
ORDER BY month;
```



#	month	average_rating
1	01	3.3796296296296298
2	02	3.3985739837598375
3	03	3.4959349593495936
4	04	3.4130434782608696
5	05	3.5058823529411764
6	06	3.52
7	07	3.369369369369369
8	08	3.3457943925233646
9	09	3.436619718309859
10	10	3.2745098039215685
11	11	3.5164835164835164
12	12	3.2247191011235956

3. Top 10 Most Reviewed Businesses in the Previous Year

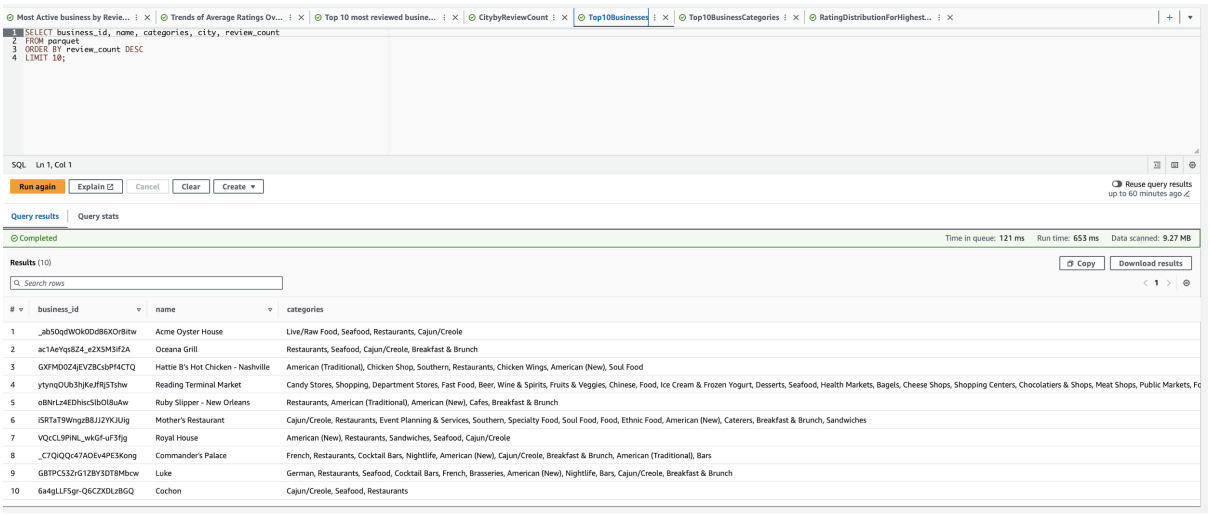
```
SELECT b.name, COUNT(r.review_id) AS review_count, EXTRACT(year FROM
CAST(r.date AS timestamp)) AS review_year
FROM parquet b
JOIN reviews_cf7572e2d9013c7b0fa46bee1843c9f6 r ON b.business_id = r.business_id
GROUP BY b.name, EXTRACT(year FROM CAST(r.date AS timestamp))
HAVING EXTRACT(year FROM CAST(r.date AS timestamp)) = EXTRACT(year FROM
CURRENT_DATE) - 1
ORDER BY review_count DESC
LIMIT 10;
```



#	name	review_count	review_year
1	McDonald's	121	2022
2	Starbucks	109	2022
3	Chipotle Mexican Grill	100	2022
4	First Watch	87	2022
5	Dunkin'	81	2022
6	Taco Bell	67	2022
7	Oceana Grill	56	2022
8	Wendy's	52	2022
9	Chick-fil-A	50	2022
10	Domino's Pizza	46	2022

4. Top 10 Businesses

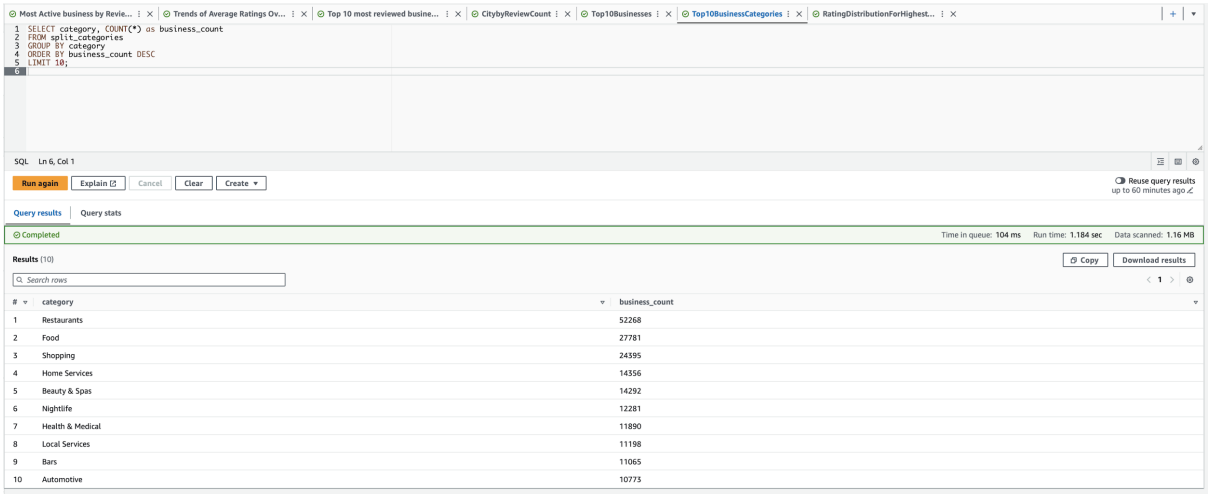
```
SELECT business_id, name, categories, city, review_count
FROM parquet
ORDER BY review_count DESC
LIMIT 10;
```



#	business_id	name	categories
1	_ab50qdWOk0DdB6XOrBitw	Acme Oyster House	Live/Raw Food, Seafood, Restaurants, Cajun/Creole
2	ac1AeYqs8Z4_e2X5M3if2A	Oceana Grill	Restaurants, Seafood, Cajun/Creole, Breakfast & Brunch
3	GXFMD0Z4jEVZBCsbPf4CTQ	Hattie B's Hot Chicken - Nashville	American (Traditional), Chicken Shop, Southern, Restaurants, Chicken Wings, American (New), Soul Food
4	ytynqOUb3hjKeJfRj5Tshw	Reading Terminal Market	Candy Stores, Shopping, Department Stores, Fast Food, Beer, Wine & Spirits, Fruits & Veggies, Chinese, Food, Ice Cream & Frozen Yogurt, Desserts, Seafood, Health Markets, Bagels, Cheese Shops, Shopping Centers, Chocolatiers & Shops, Meat Shops, Public Markets, Fo
5	oBNrLz4EDhiscSlbOI8uAw	Ruby Slipper - New Orleans	Restaurants, American (Traditional), American (New), Cafes, Breakfast & Brunch
6	iSRTaT9WngzB8JJ2YKJUig	Mother's Restaurant	Cajun/Creole, Restaurants, Event Planning & Services, Southern, Specialty Food, Soul Food, Food, Ethnic Food, American (New), Caterers, Breakfast & Brunch, Sandwiches
7	VQcCL9PiNL_wkGf-uF3fjg	Royal House	American (New), Restaurants, Sandwiches, Seafood, Cajun/Creole
8	_C7QiQQc47AOEv4PE3Kong	Commander's Palace	French, Restaurants, Cocktail Bars, Nightlife, American (New), Cajun/Creole, Breakfast & Brunch, American (Traditional), Bars
9	GBTPC53ZrG1ZBY3DT8Mbcw	Luke	German, Restaurants, Seafood, Cocktail Bars, French, Brasseries, American (New), Nightlife, Bars, Cajun/Creole, Breakfast & Brunch
10	6a4gLLF5gr-Q6CZXDLzBGQ	Cochon	Cajun/Creole, Seafood, Restaurants

5. Top 10 Business Categories

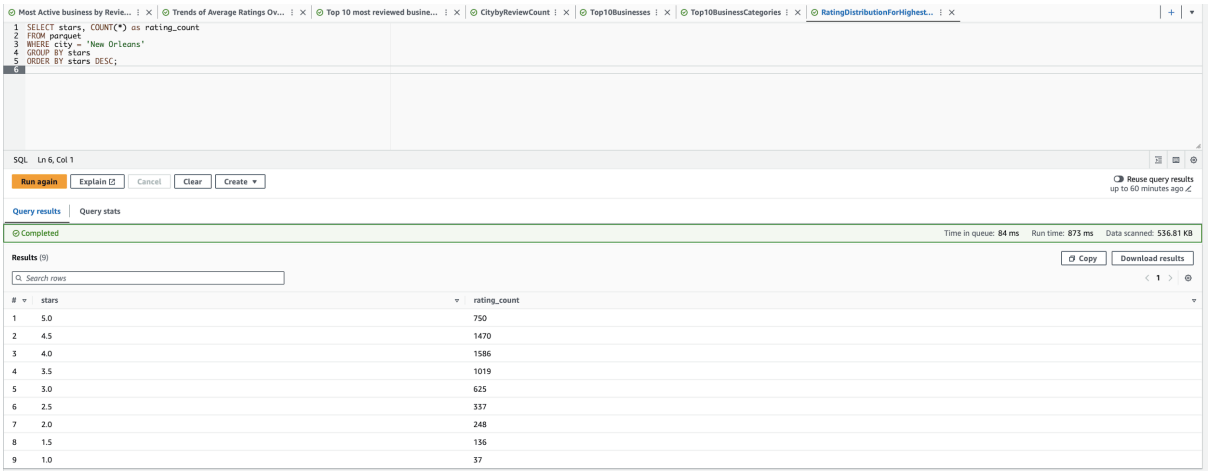
```
SELECT category, COUNT(*) AS business_count
FROM split_categories
GROUP BY category
ORDER BY business_count DESC
LIMIT 10;
```



#	category	business_count
1	Restaurants	52268
2	Food	27781
3	Shopping	24395
4	Home Services	14356
5	Beauty & Spas	14292
6	Nightlife	12281
7	Health & Medical	11890
8	Local Services	11198
9	Bars	11065
10	Automotive	10773

6. Rating Distribution for Highest Rated City

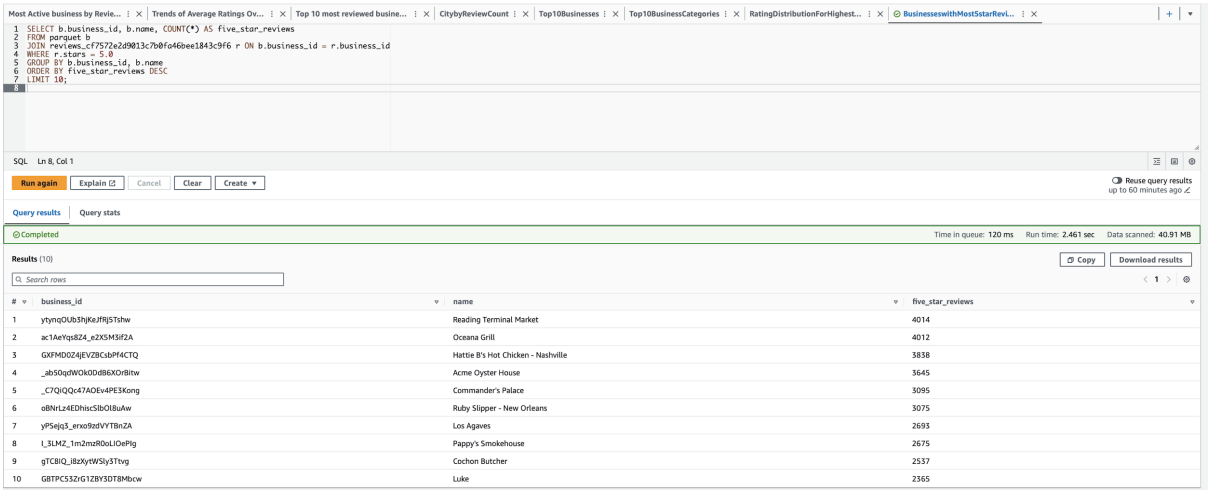
```
SELECT stars, COUNT(*) AS rating_count
FROM parquet
WHERE city = 'New Orleans'
GROUP BY stars
ORDER BY stars DESC;
```



#	stars	rating_count
1	5.0	750
2	4.5	1470
3	4.0	1586
4	3.5	1019
5	3.0	625
6	2.5	337
7	2.0	248
8	1.5	136
9	1.0	37

7. Businesses with Most 5-star Reviews

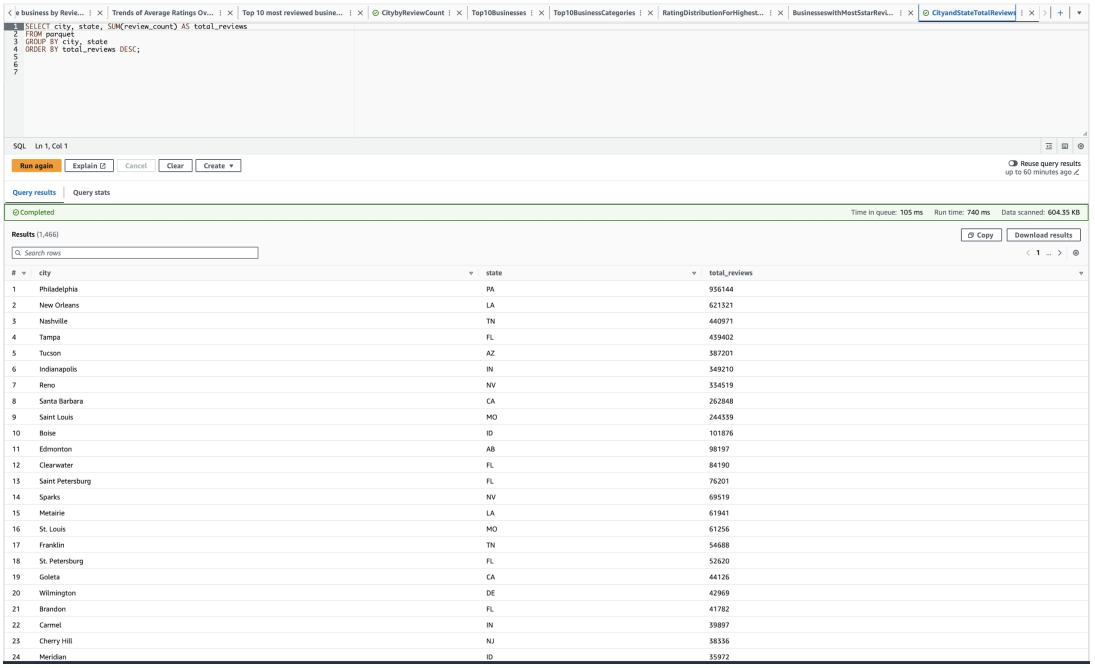
```
SELECT b.business_id, b.name, COUNT(*) AS five_star_reviews
FROM parquet b
JOIN reviews_cf7572e2d9013c7b0fa46bee1843c9f6 r ON b.business_id = r.business_id
WHERE r.stars = 5.0
GROUP BY b.business_id, b.name
ORDER BY five_star_reviews DESC
LIMIT 10;
```



#	business_id	name	five_star_reviews
1	ytynqOUb3hjKeJfRj5Tshw	Reading Terminal Market	4014
2	ac1AeYqs8Z4_e2X5M3if2A	Oceana Grill	4012
3	GXFMD0Z4jEVZBCsbPf4CTQ	Hattie B's Hot Chicken - Nashville	3838
4	_ab50qdWOk0DdB6XOrBitw	Acme Oyster House	3645
5	_C7QiQQc47AOEv4PE3Kong	Commander's Palace	3095
6	oBNrLz4EDhiscSlbOl8uAw	Ruby Slipper - New Orleans	3075
7	yPSejq3_erxo9zdVYTBnZA	Los Agaves	2693
8	I_3LMZ_1m2mzR0oLIOePIg	Pappy's Smokehouse	2675
9	gTCBIQ_i8zXytWSly3Ttvg	Cochon Butcher	2537
10	GBTPC53ZrG1ZBY3DT8Mbcw	Luke	2365

8. City and State Total Reviews

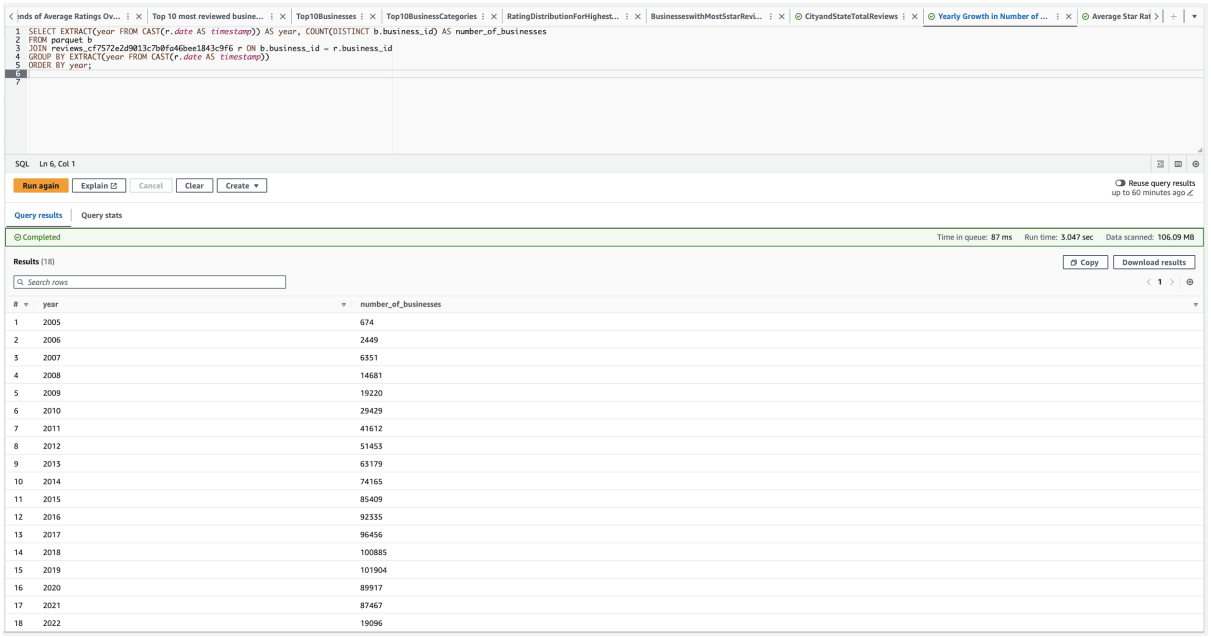
```
SELECT city, state, SUM(review_count) AS total_reviews
FROM parquet
GROUP BY city, state
ORDER BY total_reviews DESC;
```



#	city	state	total_reviews
1	Philadelphia	PA	936144
2	New Orleans	LA	621321
3	Nashville	TN	440971
4	Tampa	FL	459402
5	Tucson	AZ	387201
6	Indianapolis	IN	349210
7	Reno	NV	334519
8	Santa Barbara	CA	262848
9	Saint Louis	MO	244339
10	Boise	ID	101876
11	Edmonton	AB	98197
12	Clearwater	FL	84190
13	Saint Petersburg	FL	76201
14	Sparks	NV	69519
15	Metairie	LA	61941
16	St. Louis	MO	61256
17	Franklin	TN	54688
18	St. Petersburg	FL	52620
19	Goleta	CA	44126
20	Wilmington	DE	42969
21	Brandon	FL	41782
22	Carmel	IN	39897
23	Cherry Hill	NJ	38336
24	Meridian	ID	35972

9. Yearly Growth in Number of Businesses

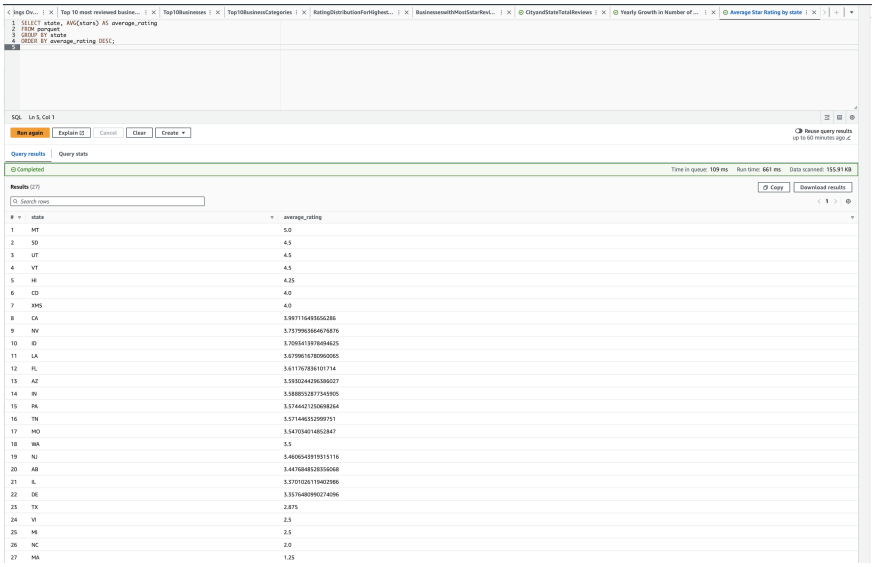
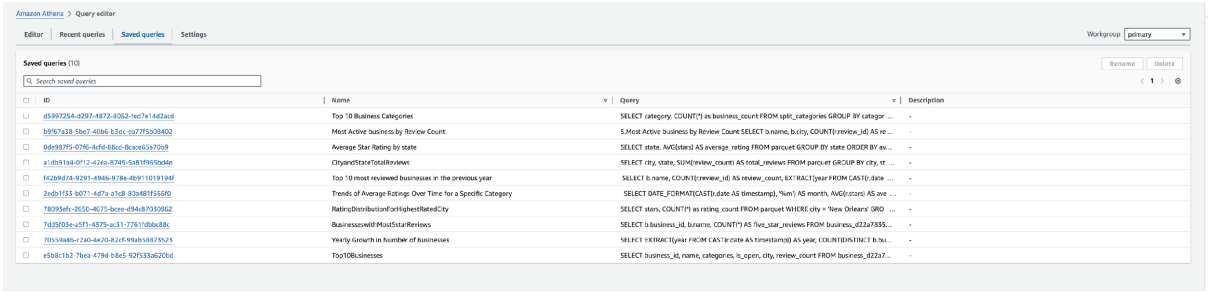
```
SELECT EXTRACT(year FROM CAST(r.date AS timestamp)) AS year,
COUNT(DISTINCT b.business_id) AS number_of_businesses
FROM parquet b
JOIN reviews_cf7572e2d9013c7b0fa46bee1843c9f6 r ON b.business_id = r.business_id
GROUP BY EXTRACT(year FROM CAST(r.date AS timestamp))
ORDER BY year;
```



#	year	number_of_businesses
1	2005	674
2	2006	2449
3	2007	6351
4	2008	14681
5	2009	19220
6	2010	29429
7	2011	41612
8	2012	51453
9	2013	63179
10	2014	74165
11	2015	85409
12	2016	92335
13	2017	96456
14	2018	100885
15	2019	101904
16	2020	89917
17	2021	87467
18	2022	19096

10. Average Star Rating by State

```
SELECT state, AVG(stars) AS average_rating
FROM parquet
GROUP BY state
ORDER BY average_rating DESC;
```



Saved Queries