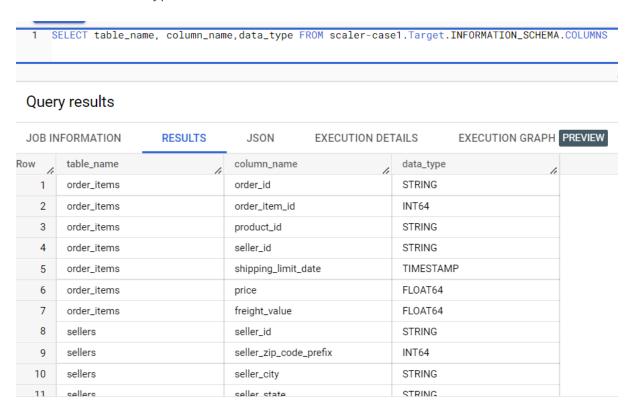
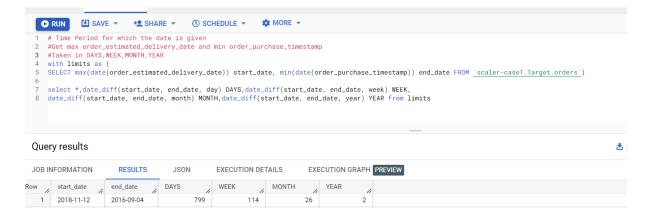
- 1. Import the dataset and do usual exploratory analysis steps like checking the structure & characteristics of the dataset
 - 1. Data type of columns in a table

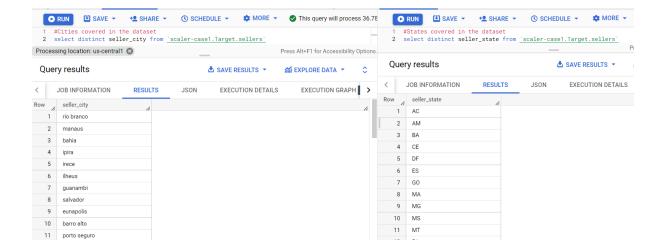


2. Time period for which the data is given



3. Cities and States covered in the dataset

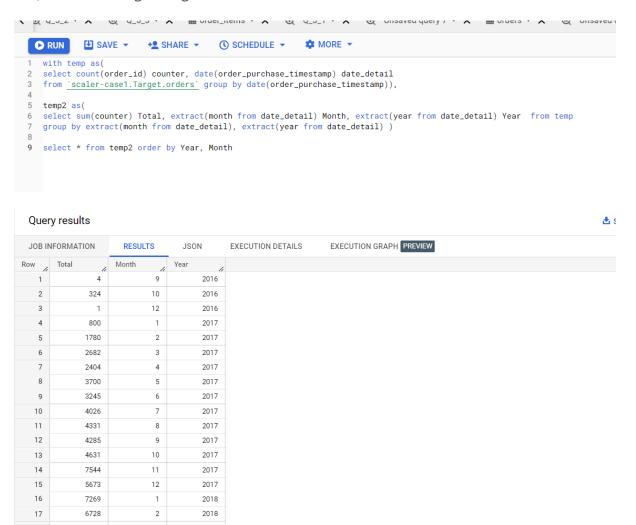
Ans:



2. In-depth Exploration:

1. Is there a growing trend on e-commerce in Brazil? How can we describe a complete scenario? Can we see some seasonality with peaks at specific months?

Yes, We can see a growing trend on e-commerce in Brazil.

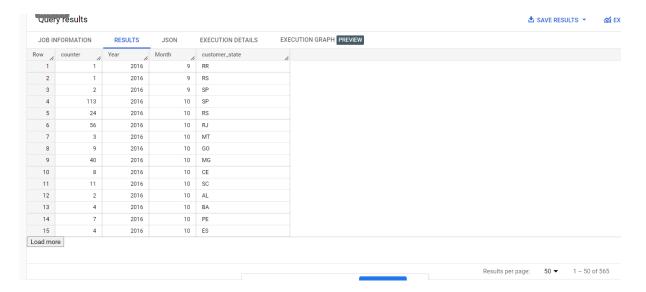




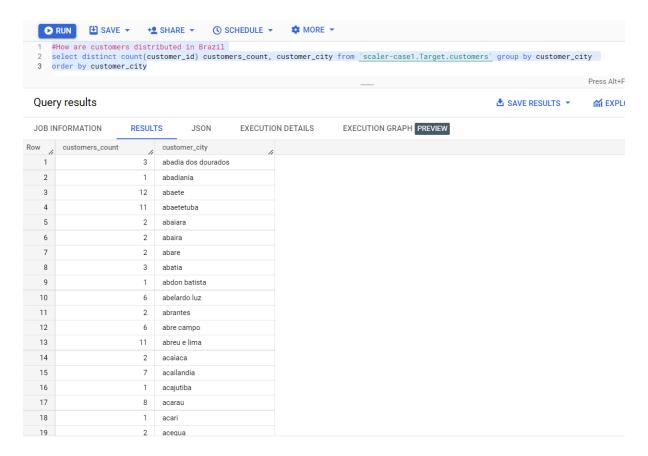
2. What time do Brazilian customers tend to buy (Dawn, Morning, Afternoon or Night)?



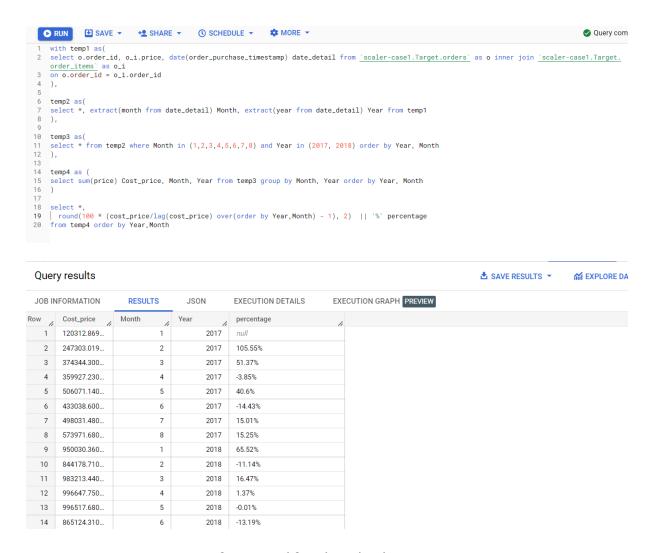
- 3. Evolution of E-commerce orders in the Brazil region:
 - 1. Get month on month orders by region, states



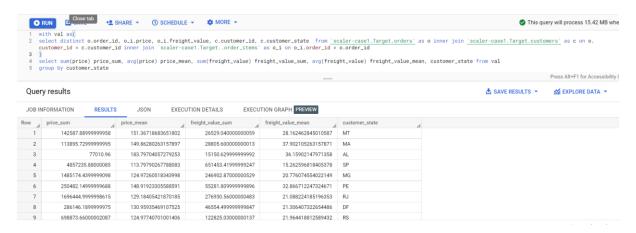
2. How are customers distributed in Brazil



- 4. Impact on Economy: Analyze the money movemented by e-commerce by looking at order prices, freight and others.
 - 1. Get % increase in cost of orders from 2017 to 2018 (include months between Jan to Aug only)

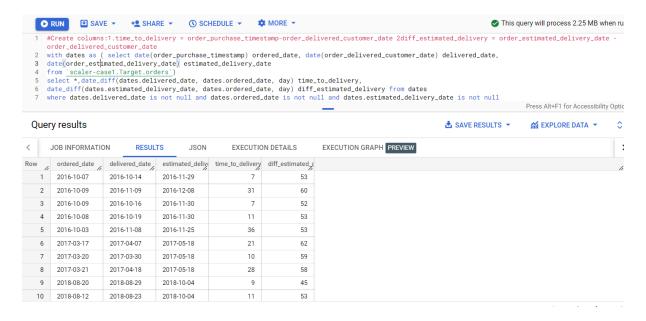


2. Mean & Sum of price and freight value by customer state

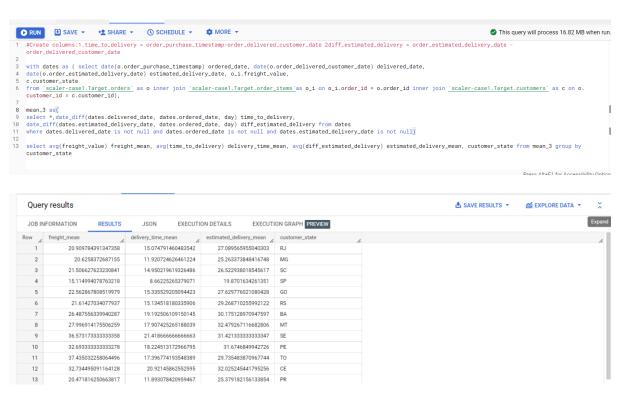


- 5. Analysis on sales, freight and delivery time
 - 1. Calculate days between purchasing, delivering and estimated delivery
 - 2. Create columns:
 - time_to_delivery = order_purchase_timestamporder_delivered_customer_date

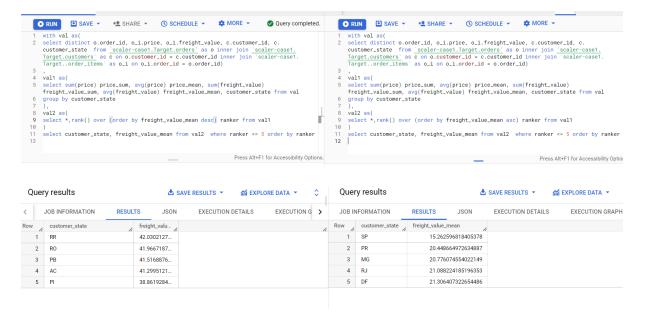
 diff_estimated_delivery = order_estimated_delivery_dateorder_delivered_customer_date



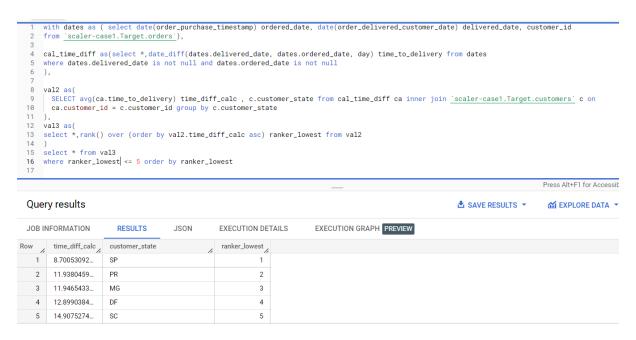
Group data by state, take mean of freight_value, time_to_delivery, diff_estimated_delivery



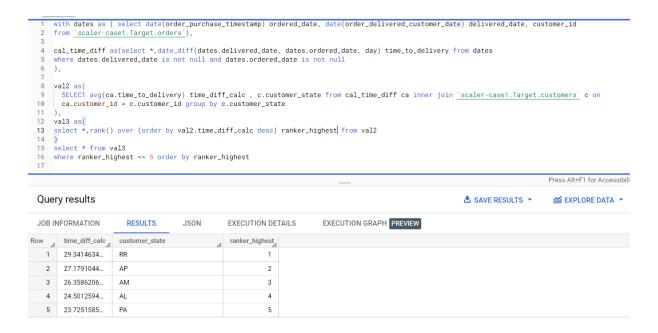
- 4. Sort the data to get the following:
 - Top 5 states with highest/lowest average freight value sort in desc/asc limit 5



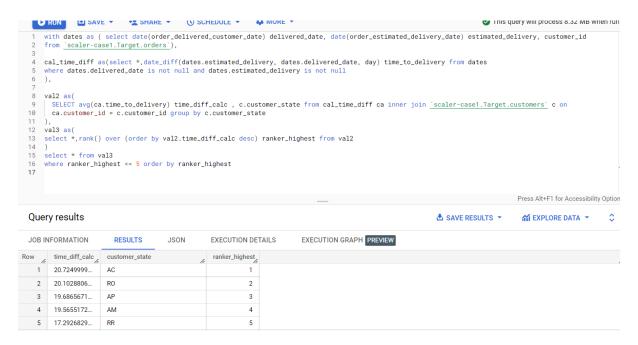
Top 5 states with highest average time to delivery



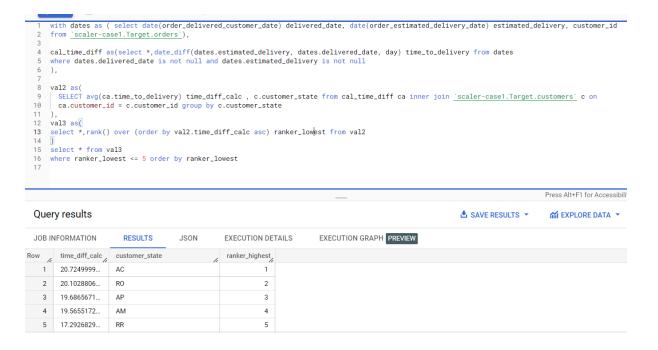
Top 5 states with lowest average time to delivery



 Top 5 states where delivery is not so fast compared to estimated date



 Top 5 states where delivery is really very fast compared to estimated date



6. Payment type analysis:

1. Month over Month count of orders for different payment types

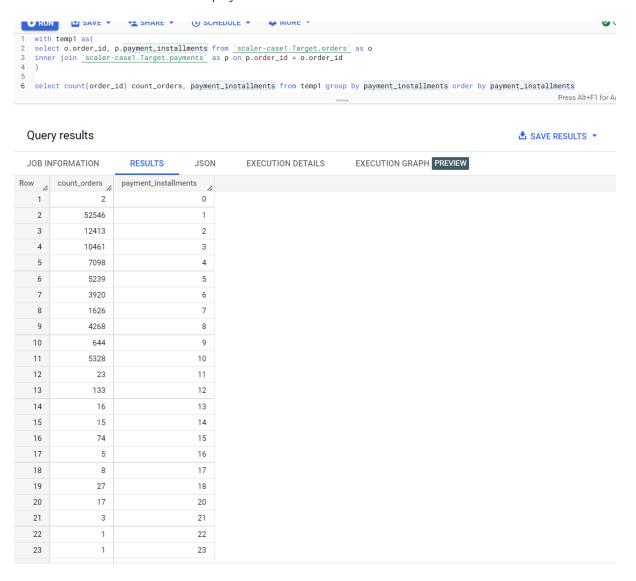
```
    SCHEDULE ▼

                                                            MORE 🕶
  □ RUN
            SAVE ▼
                          +⊈ SHARE ▼
    with temp1 as(
    select order_id, date(order_purchase_timestamp) date_detail from <u>`scaler-case1.Target.orders`</u>
3
4
    temp2 as(
     select t.order_id, p.payment_type, date_detail from temp1 as t
     inner join <u>`scaler-case1.Target.payments`</u> as p on t.order_id = p.order_id
10
    temp3 as(
    select count(order_id) count_orders, payment_type,
11
   extract(year from date_detail) Year, extract(month from date_detail) Month from temp2
12
   group by extract(month from date_detail),extract(year from date_detail),payment_type
13
14
15
16 select * from temp3 order by Year, Month
```

Query results
[♣] save

JOB INFORMATION		RESULTS	JSON	EXECUTION DETAILS		ECUTION GRAPH PREVIEW
Row	count_orders //	payment_type	1.	Year //	Month	
1	3	credit_card		2016	9	
2	254	credit_card		2016	10	
3	63	UPI		2016	10	
4	23	voucher		2016	10	
5	2	debit_card		2016	10	
6	1	credit_card		2016	12	
7	583	credit_card		2017	1	
8	197	UPI		2017	1	
9	61	voucher		2017	1	
10	9	debit_card		2017	1	
						1

2. Distribution of payment installments and count of orders



```
with temp1 as(
select o.order_id, p.payment_installments from _scaler-case1.Target.orders as o
inner join _scaler-case1.Target.payments as p on p.order_id = o.order_id
)

  6 select count(order_id) count_orders, payment_installments from temp1 group by payment_installments order by payment_installments
                                                                                                                   Press Alt+F1 f
 Query results
                                                                                                           ≛ SAVE RESULTS ▼ ≦ EXPLOR
                                                                      EXECUTION GRAPH PREVIEW
 JOB INFORMATION
                      RESULTS
                                    JSON
                                              EXECUTION DETAILS
Row / count_orders / payment_installments
   1
                2
                                            0
   2
                                            1
             52546
   3
                                            2
             12413
                                            3
   4
             10461
                                            4
   5
              7098
   6
                                            5
              5239
   7
                                            6
              3920
   8
                                            7
              1626
   9
              4268
                                            8
   10
                                            9
               644
   11
              5328
                                           10
   12
                23
                                           11
   13
                133
                                           12
   14
                16
                                           13
   15
                15
                                           14
   16
                74
                                           15
  17
                 5
```