E-COMMERCE BRAZILIAN STORE ANALYSIS IN THE PERIOD OF 2016 - 2018

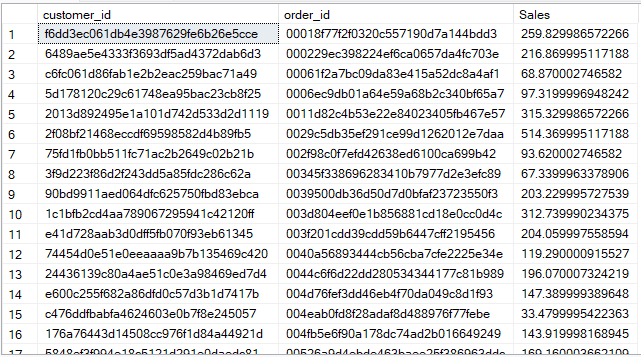
1.Create the different metrics like Sales, customer acquisitions and total no. of orders for each Year across the different states they serve.

Query 1:-

**It Shows the Total sales as per order id.**

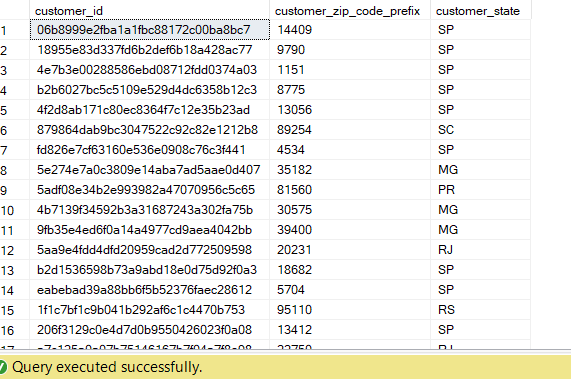
select orders.customer\_id, o.order\_id,sum(o.payment\_value) as Sales from orders join order\_payments o on

o.order\_id = orders.order\_id group by orders.customer\_id,o.order\_id;



**It shows the customer state with their state zip code as per customer id.**

select customer\_id ,customer\_zip\_code\_prefix,customer\_state from customers ;



**It Shows the Total orders of customers as per state.**

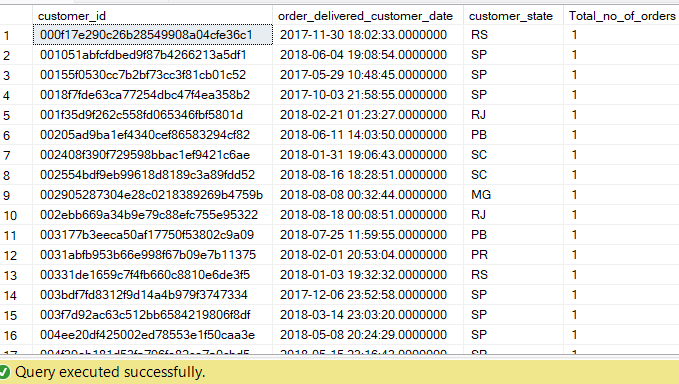
select customers.customer\_id,orders.order\_delivered\_customer\_date,customers.customer\_state,

count(orders.order\_id) as Total\_no\_of\_orders from orders

join customers on customers.customer\_id=orders.customer\_id

group by customers.customer\_id,orders.order\_delivered\_customer\_date,

customers.customer\_state ;



**This query represents the total no. of orders in each State where all the order is delivered(date).**

2. Using the above metrics, identify the top 2 States which show

i. The declining trend over the years

ii. Increasing trend over the years

(Choose yourself the best-suited metrics amongst all 3 in point (1) to carry out the analysis)

Query 2:-

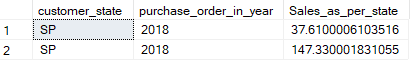
**It Shows the Top 2 states by declining the trend over the years**

1. select top 2 c.customer\_state,year(orders.order\_purchase\_timestamp) as purchase\_order\_in\_year,sum(o.payment\_value) as Sales\_as\_per\_state from orders

join customers c on c.customer\_id = orders.customer\_id

join order\_payments o on o.order\_id = orders.order\_id group by

orders.customer\_id,c.customer\_state,orders.order\_purchase\_timestamp order by purchase\_order\_in\_year desc;



**It Shows the Top 2 state by Increasing the trend over the years.**

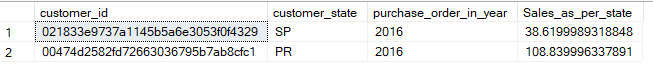
2. select top 2 orders.customer\_id, c.customer\_state,year(orders.order\_purchase\_timestamp) as purchase\_order\_in\_year,sum(o.payment\_value) as Sales\_as\_per\_state from orders

join customers c on c.customer\_id = orders.customer\_id

join order\_payments o on o.order\_id = orders.order\_id group by

orders.customer\_id,c.customer\_state,orders.order\_purchase\_timestamp order by

purchase\_order\_in\_year;



**Conclusion:-This query represents the top 2 last order purchase state and sales in 2018 and top 2 first order purchase state and sales in 2016**.

1. For the States identified above, do the Root Cause Analysis for their performance across a variety of metrics.

You can utilize the following metrics and explore a few yourself as well by analyzing the data.

Category level Sales and orders placed, post-order reviews, Seller performance in terms of deliveries, product-level sales & orders placed,

% of orders delivered earlier than the expected date, % of orders delivered later than the expected date, etc.

Query 3:-

**It Represents the number of orders is delivered by the seller as per the order purchase.**

select s.seller\_id,sum(o.price) as Single\_category\_price,orders.order\_purchase\_timestamp as Order\_purchase,

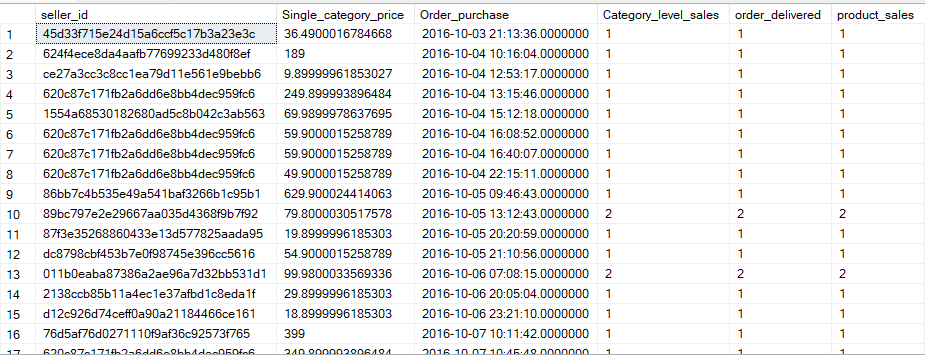
count(p.product\_category\_name) as Category\_level\_sales,

count(orders.order\_status) as order\_delivered,count(p.product\_id) as product\_sales from order\_items o join products p on

p.product\_id = o.product\_id join sellers s on o.seller\_id = s.seller\_id

join orders on o.order\_id = orders.order\_id group by s.seller\_id,

orders.order\_purchase\_timestamp;



**It Shows the % of the orders is delivered before the actual Date and Time.**

select (count(case when order\_delivered\_customer\_date > order\_estimated\_delivery\_date then 1 end) \* 100/

count(\*)) as percentage\_early from orders;



**It Shows the % of the orders is delivered after the actual Date and Time.**

select (count(case when order\_delivered\_customer\_date < order\_estimated\_delivery\_date then 1 end) \* 100/

count(\*)) as percentage\_later from orders;



1. Do the above analysis for the top 2 cities which are causing the trend for each of the states identified in point (2)

Query 4:-

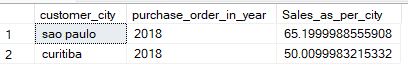
**It represents the Top 2 cities which are declining the trend over the years.**

select top 2 c.customer\_city,year(orders.order\_purchase\_timestamp) as purchase\_order\_in\_year,sum(o.payment\_value) as Sales\_as\_per\_city from orders

join customers c on c.customer\_id = orders.customer\_id

join order\_payments o on o.order\_id = orders.order\_id group by

orders.customer\_id,c.customer\_city,orders.order\_purchase\_timestamp order by purchase\_order\_in\_year desc;



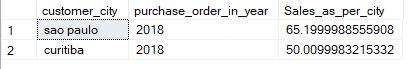
**It represents the Top 2 cities which are increasing the trend over the years.**

select top 2 c.customer\_city,year(orders.order\_purchase\_timestamp) as purchase\_order\_in\_year,sum(o.payment\_value) as Sales\_as\_per\_city from orders

join customers c on c.customer\_id = orders.customer\_id

join order\_payments o on o.order\_id = orders.order\_id group by

orders.customer\_id,c.customer\_city,orders.order\_purchase\_timestamp order by purchase\_order\_in\_year asc;



1. After doing the Root cause analysis, help the client by suggesting ways to improve the performance of the States and the cities

Query 5:-

* Improve the delivery rate and always delivered the product before the expected date by this customer always choose your shop and buy products as need .
* Provide your service fast and always reminder your customer about your shop .