

To Do

1. Import the dataset and do usual exploratory analysis steps like checking the structure & characteristics of the dataset
 - a. Data type of columns in a table
 - b. Time period for which the data is given
 - c. Cities and States of customers ordered during the given period
2. In-depth Explorations:
 - a. 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?
 - b. What time do Brazilian customers tend to buy (Morning, Afternoon, Evening or Night)?
3. Evolution of E-commerce orders in the Brazil region:
 - a. Get month on month orders by states
 - b. Distribution of customers across the states in Brazil
4. Impact on Economy: Analyze the money movement by e-commerce by looking at order prices, freight and others.
 - a. Get % increase in cost of orders from 2017 to 2018 (include months between Jan to Aug only) - You can use "payment_value" column in payments table
 - b. Mean & Sum of price and freight value by customer state
5. Analysis on sales, freight and delivery time
 - a. Calculate days between purchasing, delivering and estimated delivery
 - b. Find time_to_delivery & diff_estimated_delivery. Formula for the same given below:
 - i. $\text{time_to_delivery} = \text{order_purchase_timestamp} - \text{order_delivered_customer_date}$
 - ii. $\text{diff_estimated_delivery} = \text{order_estimated_delivery_date} - \text{order_delivered_customer_date}$
 - c. Group data by state, take mean of freight_value, time_to_delivery, diff_estimated_delivery
 - d. Top 5 states with highest/lowest average freight value - sort in desc/asc limit 5
 - e. Top 5 states with highest/lowest average time to delivery
 - f. Top 5 states where delivery is really fast/ not so fast compared to estimated date
6. Payment type analysis:
 - a. Month over Month count of orders for different payment types
 - b. Count of orders based on the no. of payment installments
7. Actionable Insights
8. Recommendations