

Key Observations & Insights

SQL Queries Used

All SQL queries are available in the [incubyte.sql](#) file.

Region wise Sales Amount :

- Highest Region with sales is: WEST(3064337892.45)
- Lowest Region with sales is: EAST(1027325507.51)

Result Set:

	region text	total_sales numeric
1	West	3064337892.45
2	North	3057604510.97
3	South	3053395049.26
4	East	1027325507.51

Regional & City-Level Sales:

The highest revenue-generating cities in each region (ranked 1st) are:

- **East:** Kolkata (1027325507.51)
- **North:** Delhi (1021352525.15)
- **South:** Bangalore (1022379945.89)
- **West:** Ahmedabad (1023675900.25)

Least Sales by Region:

- **East:** Kolkata – 1027325507.51 (Only city in the East)
- **North:** Jaipur – 1015044077.82
- **South:** Hyderabad – 1008892392.77 (Lowest overall)
- **West:** Mumbai – 1018525530.92

Top-Selling Products based on Quantity sold

- Note: Unknown is the default value in place of Nulls

	productname text	quantity_sold numeric
1	Apple	2296713
2	Unknown	502299
3	Notebook	498649
4	T-Shirt	270545
5	Laptop	89809

Sales Trends Over Time

Note: **2020-01-01** is the default value in place of Nulls

- 2020 - Jan(I take this as default in place of Nulls) have the **high** no of transactions
- 2022 - aug have the **high** no of transactions
- 2022- Dec have the **low** no of transactions
- only(2020, 2022 years present in the dataset)

Further i drill down to day wise no of transactions

I found:

1st day of month has **highest** no of transactions because

***1st is present in both years(2020, 2022)

***Rest of days present only in 2022

31st day of the month has **lowest** no of transactions

Impact of Discounts on Sales

Highest orders were recorded when discount is **35.85%**

Lowest orders were recorded when discount is **0.0%**

Customer Demographics Analysis

	customergender text	avg_age numeric	total_customers bigint	total_sales numeric
1	Other	46	150257	3391554647.25
2	Male	46	149970	3397984626.42
3	Female	47	149773	3367390443.58
4	Unknown	67	50000	45733242.94

Delivery & Shipping Cost Analysis

Maximum orders will be delivered in 3 days

	deliverytimedays numeric	total_orders bigint	avg_shipping_cost numeric
1	3	96783	88.00
2	2	78866	27.88
3	5	66785	121.72
4	4	66626	122.09
5	1	33580	16.39
6	7	31467	760.37
7	6	21261	298.68
8	9	13759	1302.48
9	14	13724	1308.17
10	8	13660	1295.37
11	11	13522	1315.28
12	12	13483	1304.04
13	13	13313	1301.63
14	10	13310	1301.02
15	15	9861	1750.55

Feedbacks and Return Analysis:

- Most received Feedback score is **4**
- Least received score is **3**

	feedbackscore numeric	transaction_count bigint	avg_amount_spent numeric
1	4	100264	20503.88
2	2	100237	20347.61
3	5	100014	20260.46
4	1	99840	20511.94
5	3	99645	20402.80

- Most Returns are from Delhi
- Least Returns are from Pune

	city text	total_returncount bigint
1	Delhi	25155
2	Bangalore	25126
3	Ahmeda...	25081
4	Kolkata	25076
5	Lucknow	24962
6	Hyderabad	24944
7	Jaipur	24840
8	Mumbai	24826
9	Chennai	24739
10	Pune	24718

customer loyalty and their average spent and customer count:

	loyalty_category text	avg_spend_per_transaction numeric	cust_count bigint
1	High Loyalty (5000+)	20444.17	250028
2	Medium Loyalty (1000-4999)	20400.95	200103
3	Low Loyalty (0-999)	20228.10	49869

From above output

- We have a high number of High loyalty customers but their AVG spent amount is almost similar to rest of the category.