

The logo for Blinkit, featuring the word "blinkit" in a bold, sans-serif font. "blink" is in black and "it" is in green.A small icon representing a bar chart with three bars of increasing height.

Power BI

Title:

Blinkit Sales Data Analysis

Name:

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Narula Institute of Technology, Agarpara
(7th Semester)

Internship Under:

Classr  **m**

The logo for Classroom Tech, featuring a stylized infinity symbol or a crossed loop.

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Duration:

3 months 1st April 2025 to 30th June 2025

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Power BI

Acknowledgement

I would like to extend my deepest gratitude to **Mr. Satyaki Das**, my guide, whose unwavering support, patient guidance, and belief in my potential gave me the confidence to push beyond my limits. This project would not be what it is without his mentorship — thank you for always being a source of inspiration. I'm also incredibly thankful to **Classroom**, the institution that became my learning ground, giving me the space and tools to turn curiosity into creation. To my **family**, your love, encouragement, and faith in me carried me through every late night, every frustrating error, and every small win, I couldn't have done this without you. And to my **friends and peers**, thank you for being my sounding board, my hype crew, and my sanity check. This journey wasn't just about data, it was about the people who made it meaningful.

This project is as much yours as it is mine. **Thank you** for being a part of the journey.

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Objective / Problem Statement

Goal:

The primary goal of this project was to build a comprehensive data analytics solution using Power BI to derive actionable insights from Blinkit's operational datasets. The focus was to enable data-driven decisions across key business areas such as customer behavior, order patterns, inventory management, marketing campaign effectiveness, delivery performance, and customer satisfaction.

Key Questions Addressed:

- What are the monthly order trends across customer segments and regions?
- How efficient is delivery performance (on-time vs delayed)?
- Which products lead in orders, revenue, and inventory turnover?
- What's the breakdown and sentiment of customer feedback?
- Where are stock shortages or inefficiencies occurring?
- Can we forecast future trends in orders and inventory?



Dataset Overview

Dataset Name:

Blinkit Sales Dataset

Source:

Kaggle

Total Files:

11 CSV/Excel Files

Dataset
Overview:

Dataset Name	Rows × Columns	Key Columns for Analysis
blinkit_orders.csv	5000 × 10	order_id, customer_id, order_date, store_id
blinkit_order_items.csv	5000 × 4	order_id, product_id, quantity, price
blinkit_customers.csv	2500 × 11	customer_id, name, email, segment, pincode
blinkit_customer_feedback.csv	5000 × 8	feedback_id, customer_id, category, sentiment
blinkit_products.csv	268 × 10	product_id, product_name, category_id, price
blinkit_inventory.csv	75172 × 4	product_id, stock_level, stock_received_date
blinkit_inventoryNew.csv	18105 × 4	product_id, stock_received, damaged_stock
blinkit_delivery_performance.csv	5000 × 8	order_id, promised_time, actual_time, distance
blinkit_marketing_performance.csv	5400 × 11	campaign_id, campaign_name, spend, revenue_generated
Category_Icons.xlsx	11 × 2	category_id, icon_url
Rating_Icon.xlsx	5 × 3	rating, emoji



Tools Used:

- Power Bi
- GitHub for repository management

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Power BI

Methodology

Data Cleaning (Power Query):

- Removed duplicates from blinkit_customers.
- Handled null values in delivery and feedback tables.
- Merged stock_1 and stock_2 into inventory_new.
- Standardized column names and data types.

Visualization Approach:

- Created bar, line, pie, funnel, scatter, KPI, matrix charts.
- Used slicers, filters, and bookmarks for interactivity.
- Added DAX measures for metrics like ROAS, CLV, Gross Profit.

Question 1 : How can you import data from all 11 tables into Power BI?

The screenshot illustrates the steps to import data from 11 tables into Power BI. It shows the 'Get Data' button in the 'Home' tab, the selection of 'Text/CSV' as the data source, and a file explorer window listing 11 tables from the 'blinkit' database. The 'Load' button is highlighted at the bottom of the preview pane.

Name	Date modified	Type	Size
blinkit_customer_feedback	13-05-2025 21:47	Microsoft Excel Co...	4
blinkit_customers	13-05-2025 21:47	Microsoft Excel Co...	3
blinkit_delivery_performance	13-05-2025 21:47	Microsoft Excel Co...	4
blinkit_inventory	13-05-2025 21:47	Microsoft Excel Co...	1,6
blinkit_inventoryNew	13-05-2025 21:47	Microsoft Excel Co...	3
blinkit_marketing_performance	13-05-2025 21:47	Microsoft Excel Co...	4
blinkit_order_items	13-05-2025 21:47	Microsoft Excel Co...	1
blinkit_orders	13-05-2025 21:47	Microsoft Excel Co...	5

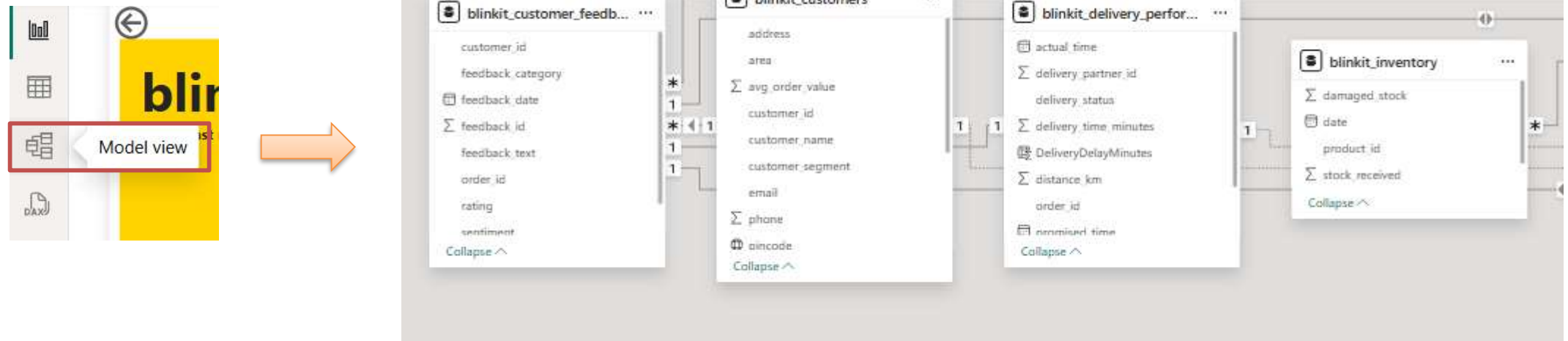
799952	01-03-2023	3	0
833557	01-03-2023	4	0
324809	01-03-2023	1	0
592784	01-03-2023	3	0
487065	01-03-2023	4	0
734789	01-03-2023	4	0

The data in the preview has been truncated due to size limits.

Buttons: Extract Table Using Examples, Load, Transform Data, Cancel

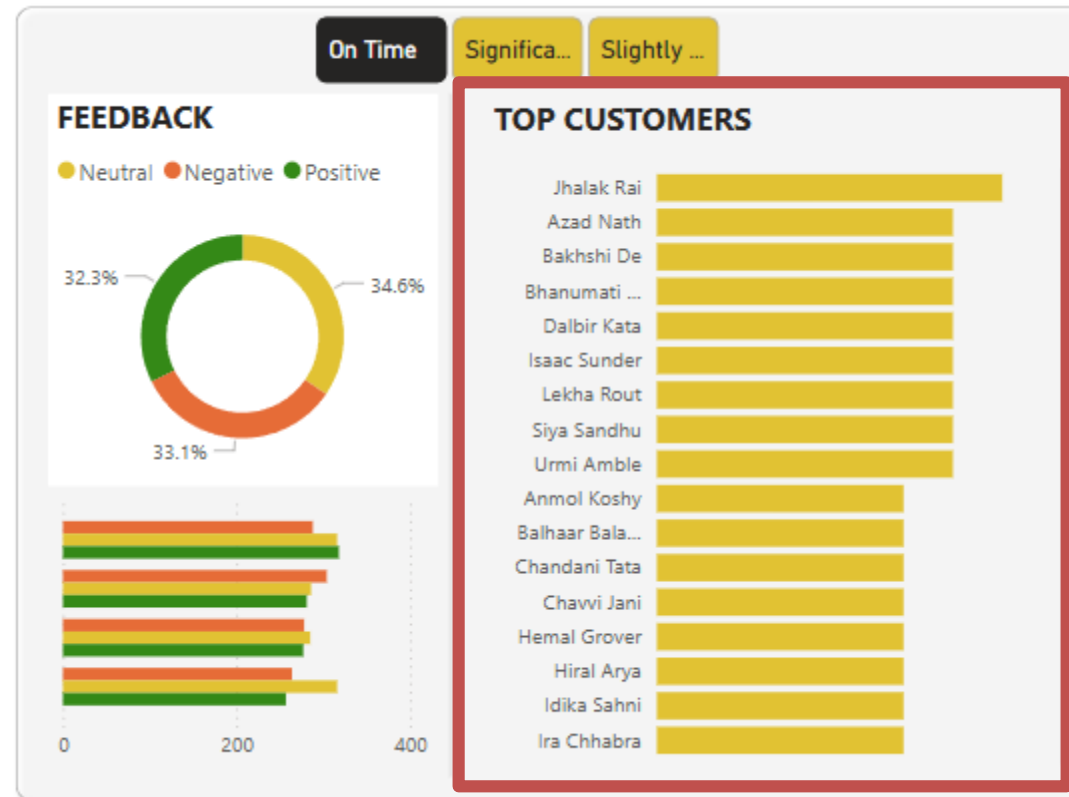
- 1 Open Power BI Desktop
- 2 Click **Home > Get Data**
- 3 Choose your data source (Excel, SQL Server, **CSV**, etc.)
- 4 In the Navigator pane, **select all 11 tables** you want to load.
- 5 Click **Load**.

Question 2 : How do you create relationships between the tables in Power BI?



- 1 After loading, go to **Model View** (the little diagram icon on the left).
- 2 Look for fields with matching keys (e.g., product_id, customer_id, order_id).
- 3 Drag the key from one table and drop it onto the matching field in the related table.
- 4 A line (relationship) appears.
- 5 Configure relationship settings if needed:
 - **Cardinality (One-to-Many)**
 - **Cross Filter Direction (Single or Both)**
- 6 Repeat this for all relevant pairs until your model is connected.

Question 3 : Create a bar chart showing the number of orders placed per customer.



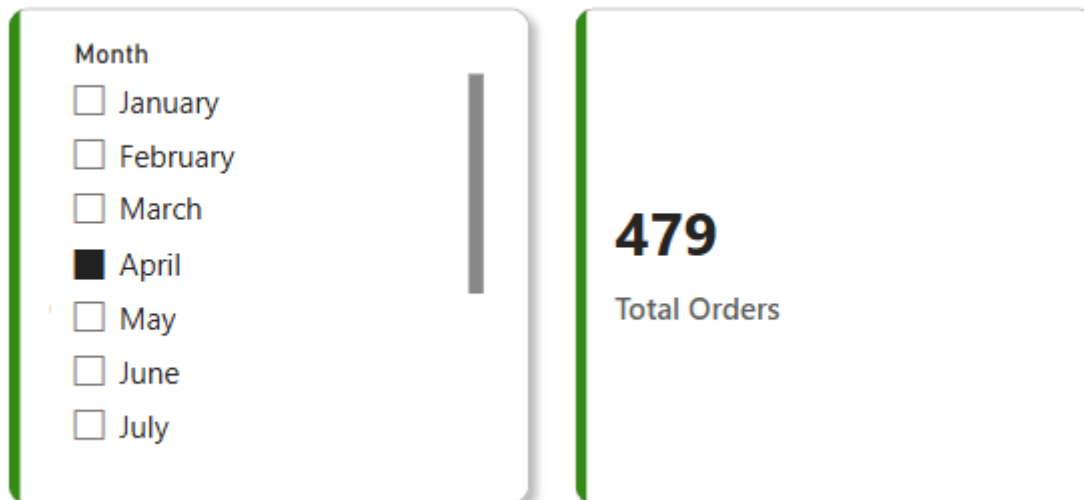
1 Identify Top Customers:

See which customers place the highest number of orders. Tall bars quickly reveal your most active, loyal buyers at a glance.

2 Observe Variability:

Notice whether order counts are similar or wildly different. Big gaps between bars mean some customers dominate total order volume.

Question 4 : How do you calculate the total number of orders placed in a given month?



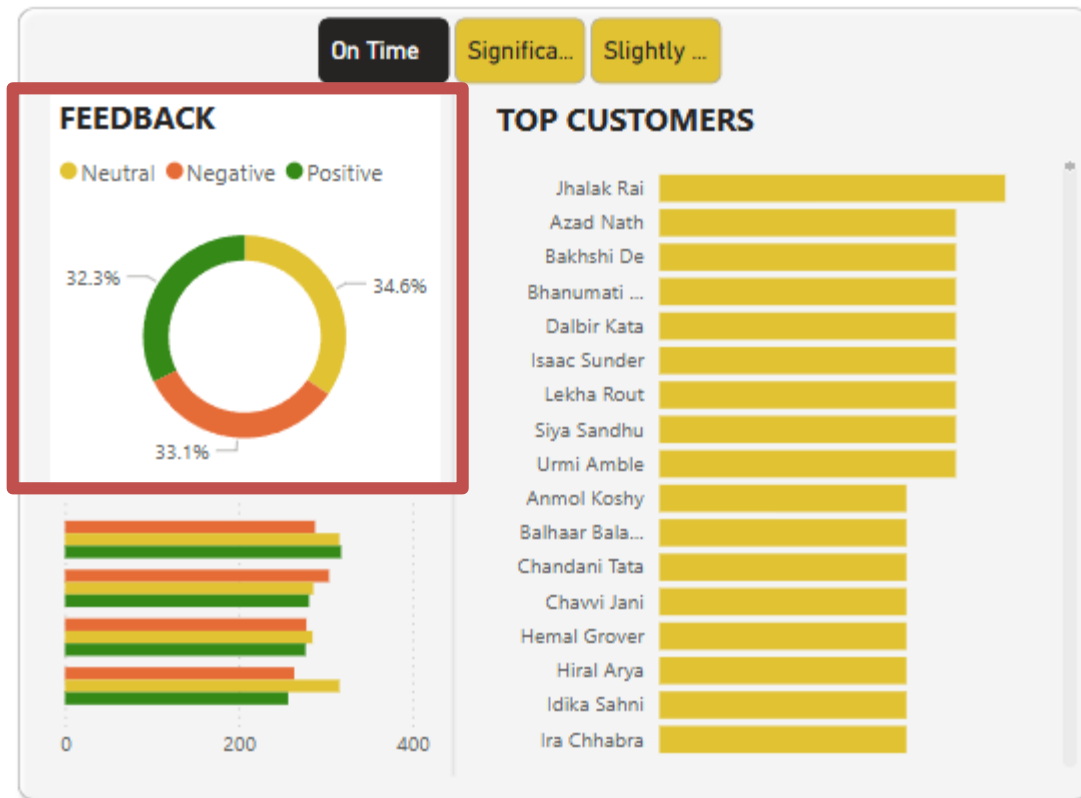
1 Monthly Order Tracking:

We calculated the total number of orders by applying a date-based filter on the order_date field, allowing us to isolate and analyze orders placed in each specific month.

2 Dynamic and Filterable:

Using a slicer connected to a calculated Month column, the total updates in real-time as the user selects different months—making it easy to compare seasonal trends and sales patterns.

Question 5: Create a pie chart showing the distribution of feedback categories from Table 1.



1 Identify Dominant Feedback:

See which feedback category has the largest slice. Bigger sections reveal whether positivity, negativity, or neutrality dominates overall responses.

2 Observe Variability:

Notice if feedback is balanced or skewed. Huge slices show strong sentiment trends, tiny ones mean less frequent response categories overall.

Question 6 : Create a table visualization showing customer details (customer_id, name, email) from Table 2.

customer_id	customer_name	email
45383958	Aachal Mangat	yasti56@example.org
14161586	Aachal Nazareth	aadhya71@example.org
15487049	Aadhya Cherian	rushil71@example.com
87222820	Aadhya Padmanabhan	nkala@example.org
65618148	Aadhya Palla	forumshan@example.org
35885052	Aadhya Ravi	urmibedi@example.org
79206969	Aadi Bains	girindra18@example.net
10608845	Aadi Gole	vbalan@example.com
65692224	Aahana Buch	zayyan92@example.com
44426129	Aahana Gopal	tdave@example.org
75913572	Aahana Menon	guhadalaja@example.com
33998721	Aahana Naik	rakshabahri@example.org
44928499	Aarav Andra	sonikabir@example.org
47275378	Aarav Dar	amruta30@example.net
89950235	Aarav Dayal	darsh33@example.net
81959925	Aarav Gopal	indalikapur@example.org

1 Identify Individual Customers:

Each row clearly displays customer ID, name, and email. This helps precisely track and reference every customer's unique information easily.

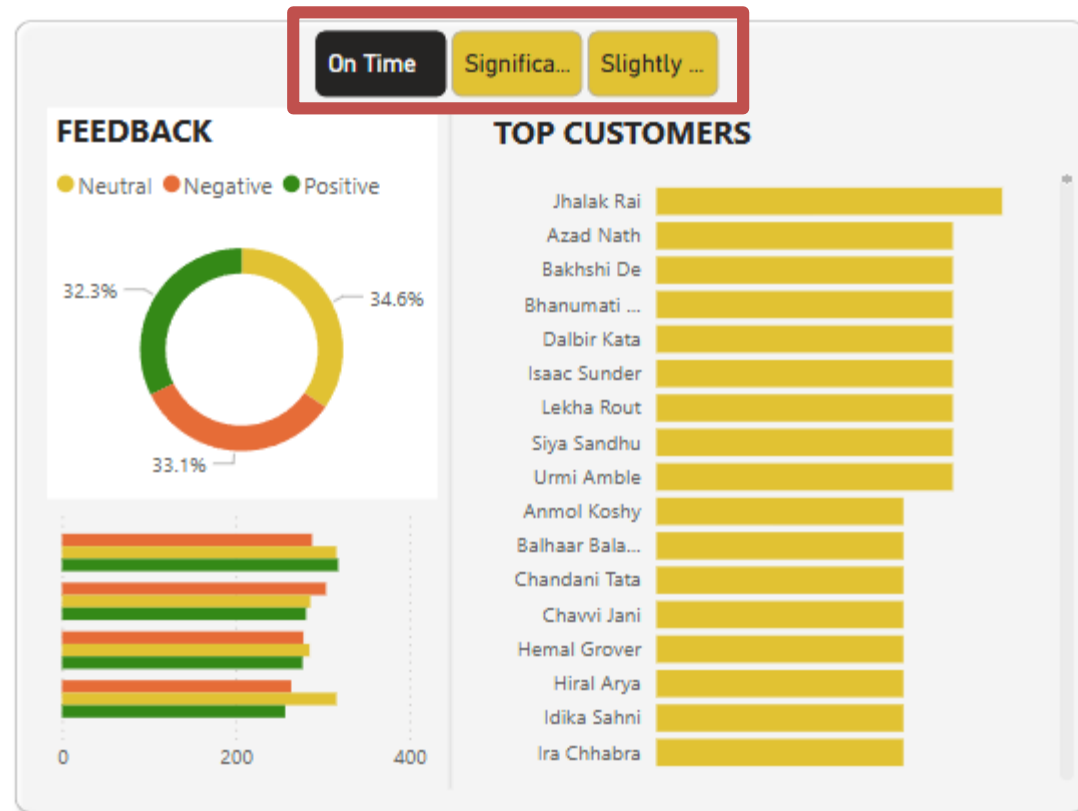
2 Observe Data Completeness:

Scan the table to spot missing or inconsistent details. Empty fields quickly reveal incomplete records needing correction or verification urgently.

blinkit

India's last minute app

Question 7 : How can you filter orders based on delivery status (on-time, delayed) from Table 3?



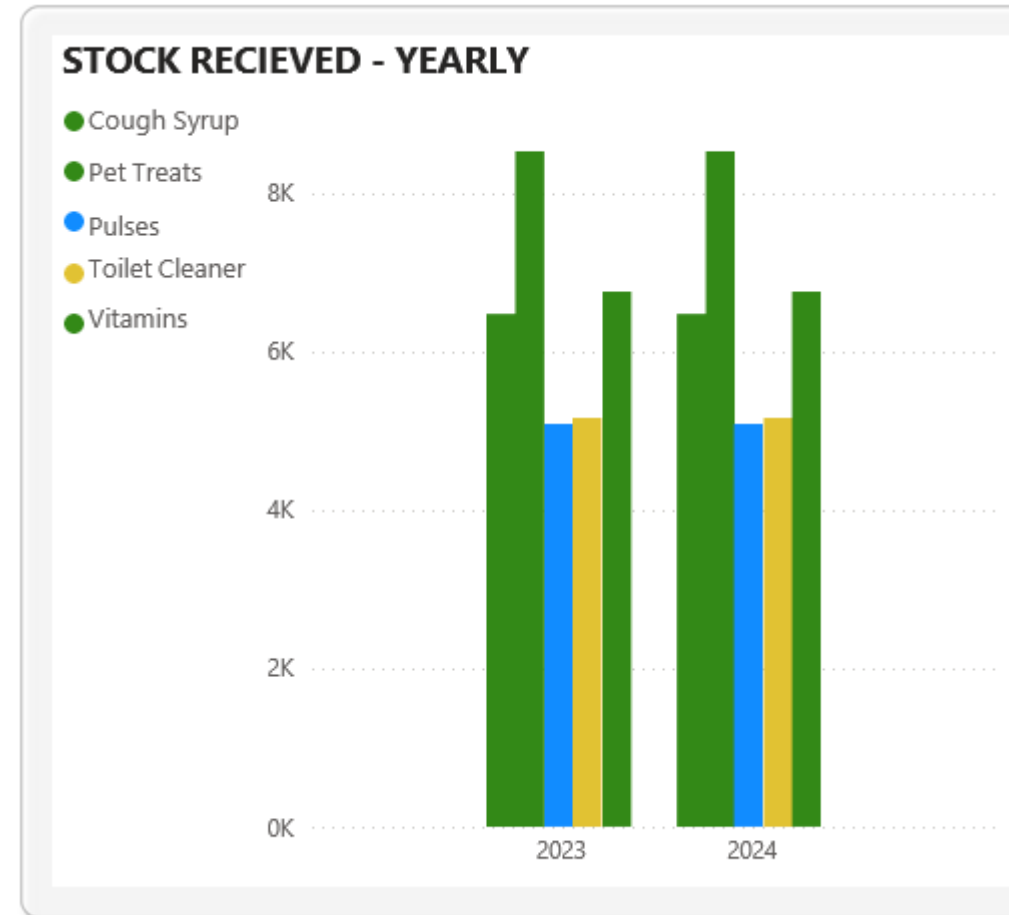
1 Easily Segment Orders:

Use the slicer to instantly view only on-time or delayed orders. Quick filtering helps targeted analysis and reporting easily.

2 Analyze Performance Trends:

Switch slicer options to compare counts, patterns, and impacts of delivery punctuality. Spot operational issues or strengths without extra hassle.

Question 8 : Create a column chart showing stock received over time for different products (Table 4 & Table 5).



1 Track Stock Trends:

Visualize how much stock was received over time per product. Tall columns highlight periods of high replenishment clearly.

2 Compare Product Performance:

See which products consistently receive more stock. Differences in column heights reveal demand, supply chain focus, or inventory priorities.

Question 9 : How do you calculate the percentage of damaged stock per product?

\$3M

Total Sales

3.33

Avg Rating

\$994.8

Avg Sales

49.92

Percentage Damaged Stock

```
1 Percentage Damaged Stock =  
2 DIVIDE(  
3     SUM(blinkit_inventoryCombined[damaged_stock]),  
4     SUM(blinkit_inventoryCombined[stock_received]),  
5     0  
6 ) * 100  
7
```

1 Measure Stock Quality:

Calculate the percentage of damaged stock per product to spot quality issues early. High percentages flag suppliers needing immediate attention.

2 Enable Smart Decisions:

Compare damaged rates across products. This helps prioritize improvements, reduce waste, and protect customer trust proactively.

Question 10 : Show a table with all campaigns (campaign_id, campaign_name, spend, revenue_generated) from Table 6.

campaign_name	Sum of spend	Sum of revenue_generated
App Push Notification	71,55,956.80	1,42,17,480.00
Category Promotion	74,02,332.00	1,43,29,821.48
Email Campaign	72,42,918.68	1,44,07,140.88
Festival Offer	71,86,748.56	1,40,28,255.64
Flash Sale	73,26,751.28	1,42,24,348.08
Membership Drive	71,60,279.20	1,40,99,805.00
New User Discount	73,33,819.24	1,44,15,440.68
Referral Program	72,72,102.04	1,47,65,530.40
Weekend Special	71,98,445.16	1,42,85,807.32
Total	6,52,79,352.96	12,87,73,629.48

① Measure Stock Quality:

Calculate the percentage of damaged stock per product to spot quality issues early. High percentages flag suppliers needing immediate attention.

② Enable Smart Decisions:

Compare damaged rates across products. This helps prioritize improvements, reduce waste, and protect customer trust proactively.

Question 11 : Create a KPI visual to display the average order value (avg_order_value) from Table 2.

1,102.38

Average Order Value

\$994.5

Avg Sales

3.34

Avg Rating

128.77M

Total Revenue

1 Monitor Revenue Health:

A KPI visual shows the average order value instantly. This metric tracks overall revenue performance and signals changes in customer spending behavior.

2 Spot Trends Quickly:

Displaying average order value as a KPI helps compare against targets. Clear indicators highlight whether sales strategies are driving higher purchase amounts.

Question 12: How do you calculate the total revenue generated from all campaigns in Table 6?

1,102.38

Average Order Value

\$994.5

Avg Sales

3.34

Avg Rating

128.77M

Total Revenue

1 Aggregate Campaign Performance:
Sum all revenue values from Table 6 to calculate total revenue. This shows the overall financial impact of your marketing campaigns.

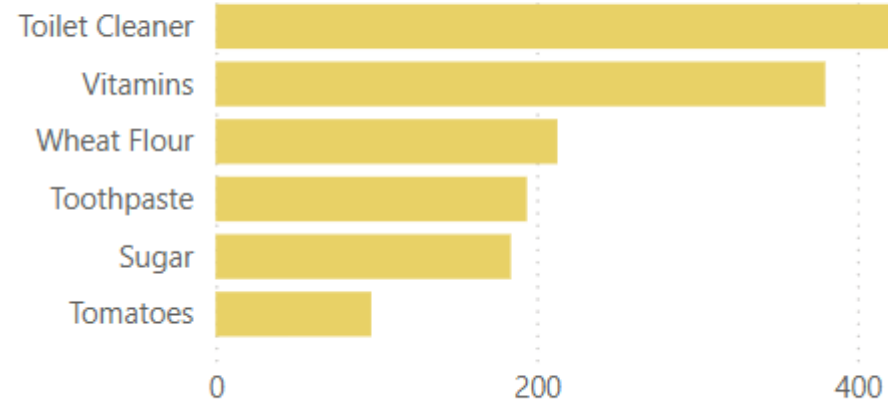
2 Evaluate Marketing Success:
Total revenue helps measure how effectively campaigns drive sales. High figures indicate strong engagement and return on investment.

1 Total Campaign Revenue = `SUM(blinkit_marketing_performance[revenue_generated])`

2

Question 13: Create a stacked bar chart to compare order quantity per product (Table 7).

ORDER QUANTITY PER PRODUCT



1 Compare Product Volumes:

A stacked bar chart shows total order quantities per product, making it easy to spot which items drive the most sales.

2 Visualize Composition Clearly:

Different segments in each bar reveal how order quantities break down by categories or time, highlighting patterns and demand shifts instantly.

Y-axis

product_name

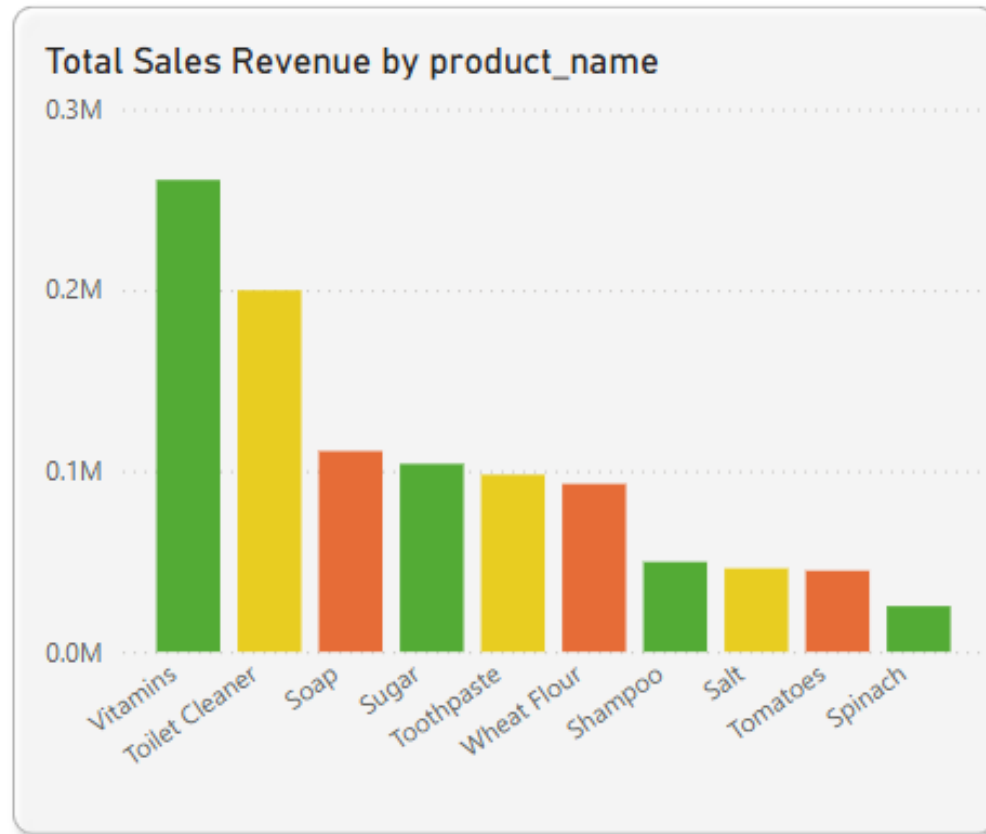


X-axis

Sum of quantity



Question 14 : How do you calculate the total sales revenue per product?



1 Multiply and Sum:

Calculate total sales revenue per product by multiplying quantity sold by unit price, then summing up all transactions for each product.

2 Assess Product Performance:

This total revenue shows which products generate the most income, helping prioritize inventory, marketing, and pricing strategies effectively.

X-axis

product_name

Y-axis

Total Sales Revenue

Question 15: Create a measure to calculate the total delivery time (actual_time - promised_time) in Table 3.

\$3M

Total Sales

3.33

Avg Rating

49.92

Percentage Damaged Stock

48

Total Delivery Time

1 Track Delivery Efficiency:

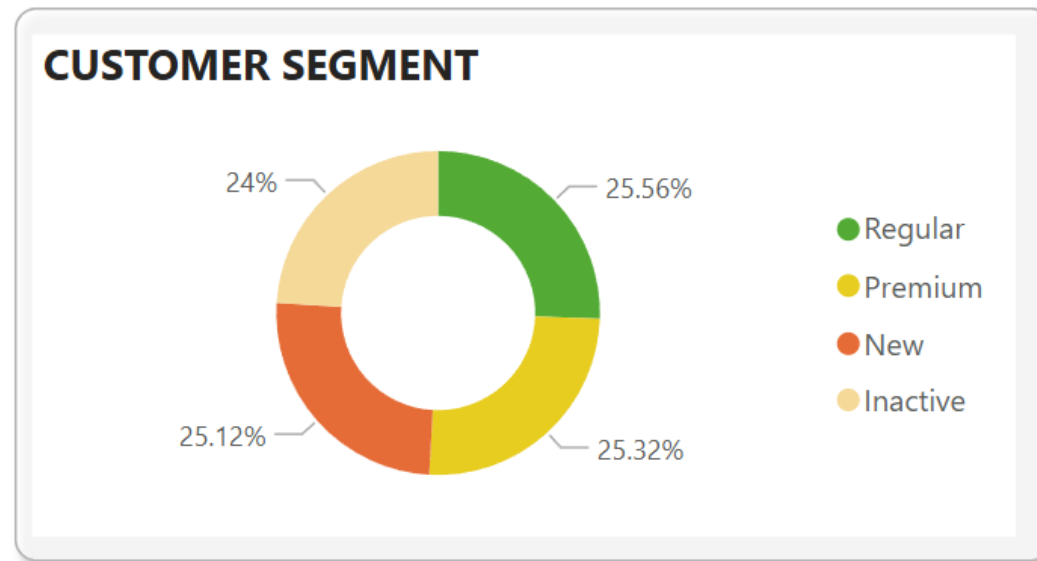
Calculating total delivery time shows how actual performance compares to promises, helping identify delays and improve logistics processes.

2 Spot Patterns in Delays:

Summing delivery time across orders reveals trends over time or by region, guiding actions to reduce late deliveries.

```
1 Total Delivery Time = SUM(blinkit_delivery_performance[delivery_time_minutes])
2 |
```

Question 16: How do you visualize customer segments (Table 2) using a pie chart?



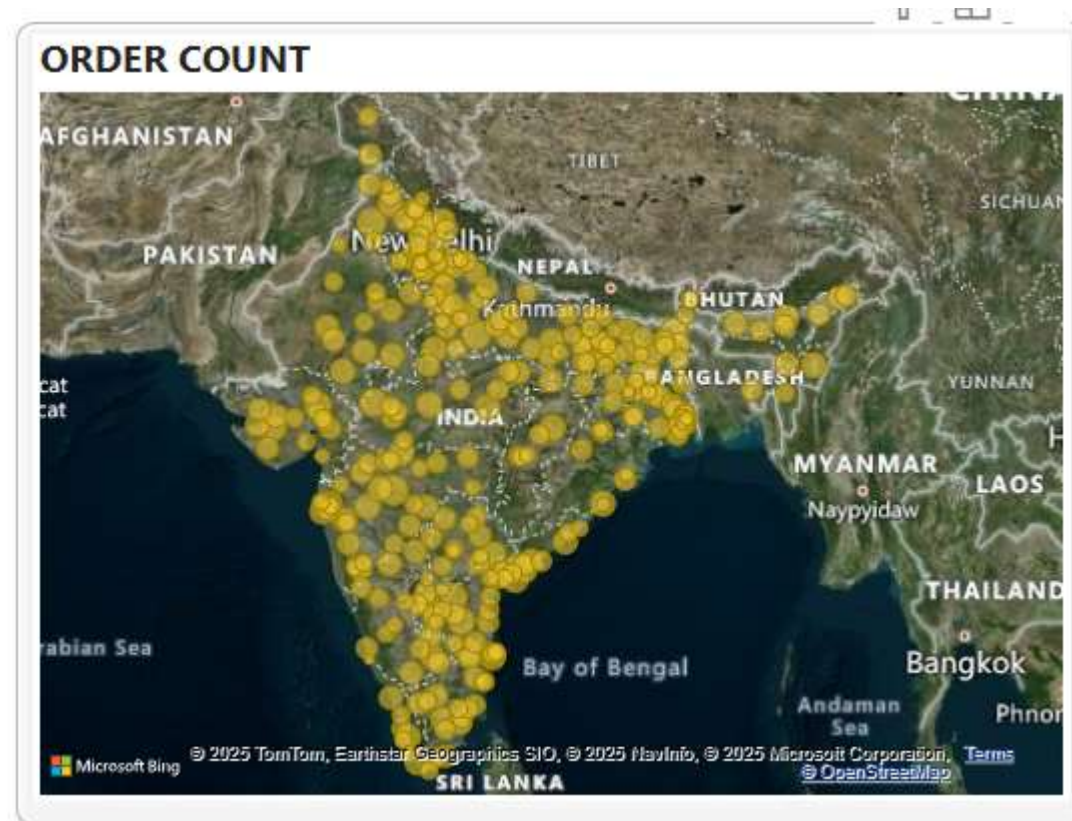
1 Show Segment Proportions:

A pie chart displays the share of each customer segment clearly. Bigger slices instantly reveal which groups dominate your customer base.

2 Highlight Distribution Gaps:

Visualizing segments helps spot imbalances. Small slices signal underrepresented groups, guiding targeted marketing to grow those segments effectively.

Question 17 : Create a heatmap showing the frequency of orders per pincode (Table 2).



1 Spot Geographic Hotspots:

A heatmap instantly shows which pincodes have high order frequency. Darker areas highlight regions driving the most sales activity.

2 Identify Market Opportunities:

Visualizing order density per pincode reveals underserved locations. This helps target marketing and optimize delivery coverage strategically.

Question 18 : How do you create a calculated column for delivery delays (actual_delivery_time - promised_delivery_time)?

```
1 DeliveryDelayMinutes =  
2 DATEDIFF(  
3     blinkit_delivery_performance[promised_time],  
4     blinkit_delivery_performance[actual_time],  
5     MINUTE  
6 )
```

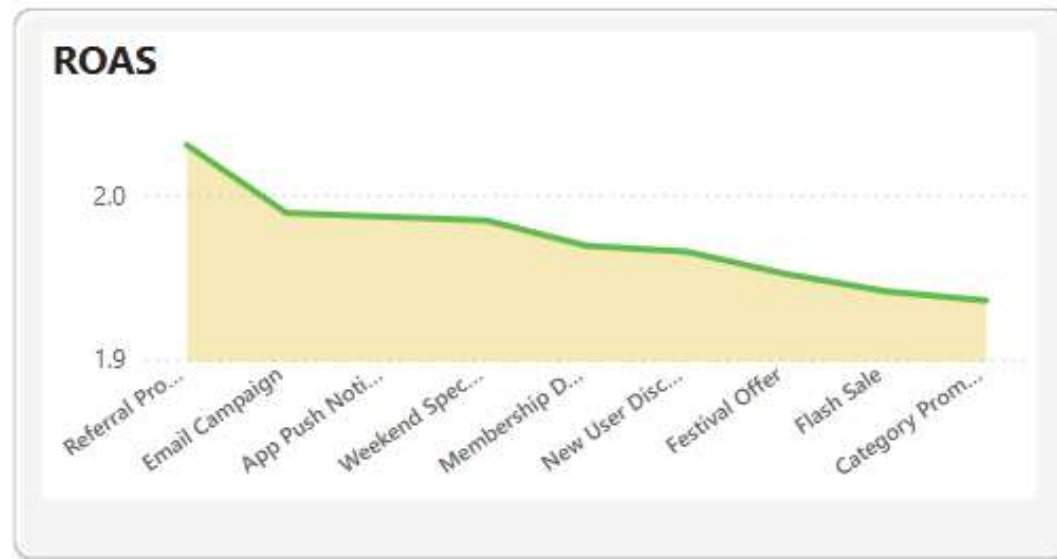
① Track Per-Order Delays:

A calculated column lets you see delivery delay for each order. It's a powerful way to measure individual order performance.

② Enable Deeper Analysis:

Having delay as a column means you can group, filter, and visualize delays by product, region, or customer for actionable insights.

Question 19: Create a measure to calculate the Return on Ad Spend (ROAS) using $(\text{revenue_generated} / \text{spend})$ from Table 6.



```

1 ROAS1 =
2 DIVIDE(
3     SUM(blinkit_marketing_performance[revenue_generated]),
4     SUM(blinkit_marketing_performance[spend]),
5     0
6 )

```

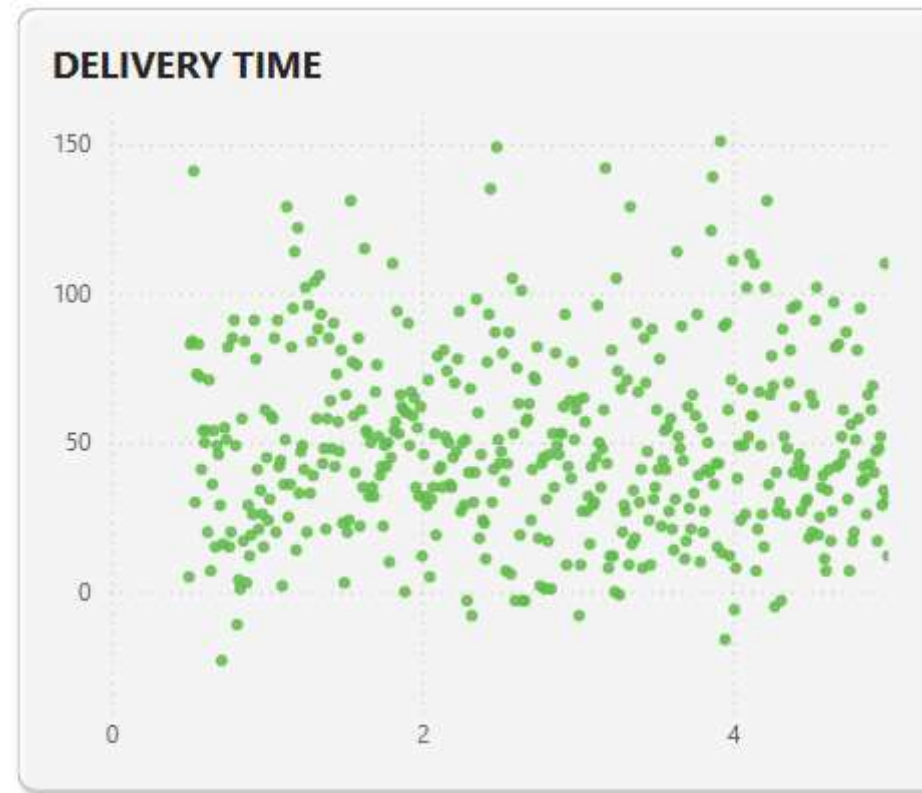
1 Measure Campaign Efficiency:

Calculating ROAS shows how much revenue each rupee spent on ads brings back. Higher ROAS means better marketing return and smarter spend.

2 Compare Campaign Performance:

A ROAS measure helps rank campaigns by profitability, spotlighting which strategies drive growth and which drain budget without results.

Question 20 : Show a scatter plot of distance vs. delivery time to analyze delivery efficiency (Table 3).



1 **Reveal Correlations Clearly:**

A scatter plot shows how delivery time changes with distance. Clusters or trends highlight whether longer distances consistently cause delays.

2 **Spot Outliers Instantly:**

Individual dots far from the main trend line expose orders with unusually long delivery times, guiding investigation and process improvements.

X Axis

distance_km

Y Axis

Sum of delivery_time_...

Question 21 : Create a measure to calculate customer retention rate using total_orders from Table 2.

0.94

CustomerRetentionRate

29.03M

Customer_LTV

\$35.986K

Gross Profit

Baby Food

Most Ordered Product

```
1 CustomerRetentionRate =  
2 DIVIDE(  
3     COUNTROWS(  
4         FILTER(  
5             blinkit_customers,  
6             blinkit_customers[total_orders] > 1  
7         )  
8     ),  
9     COUNTROWS(blinkit_customers),  
10    0  
11 )
```

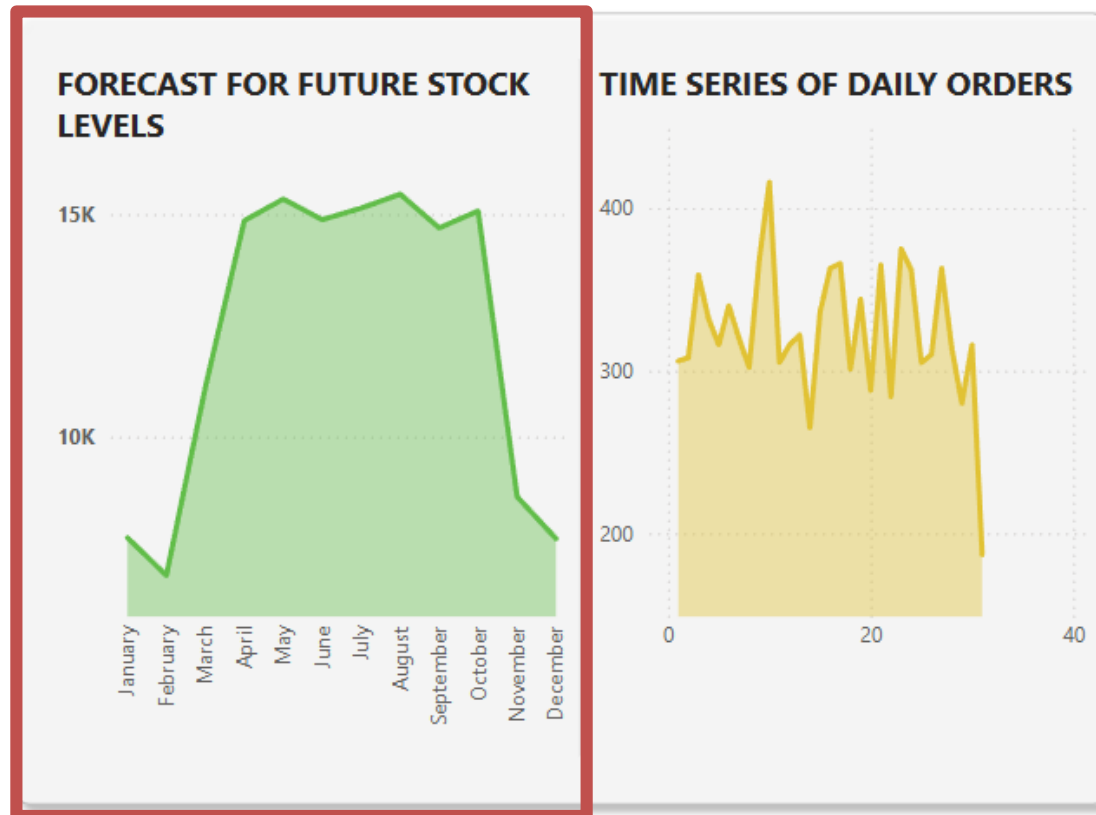
1 Track Customer Loyalty:

A retention rate measure shows how many customers return to place orders, revealing the strength of your relationship over time.

2 Guide Growth Strategies:

Analyzing retention helps spot churn risks. High rates signal loyal customers; low rates highlight a need for engagement campaigns.

Question 22: How do you create a forecast for future stock levels based on historical stock received data (Table 4 & Table 5)?



1 Predict Inventory Needs:

Create a forecast in Power BI by visualizing historical stock_received data from Tables 4 and 5. This projects future stock trends accurately.

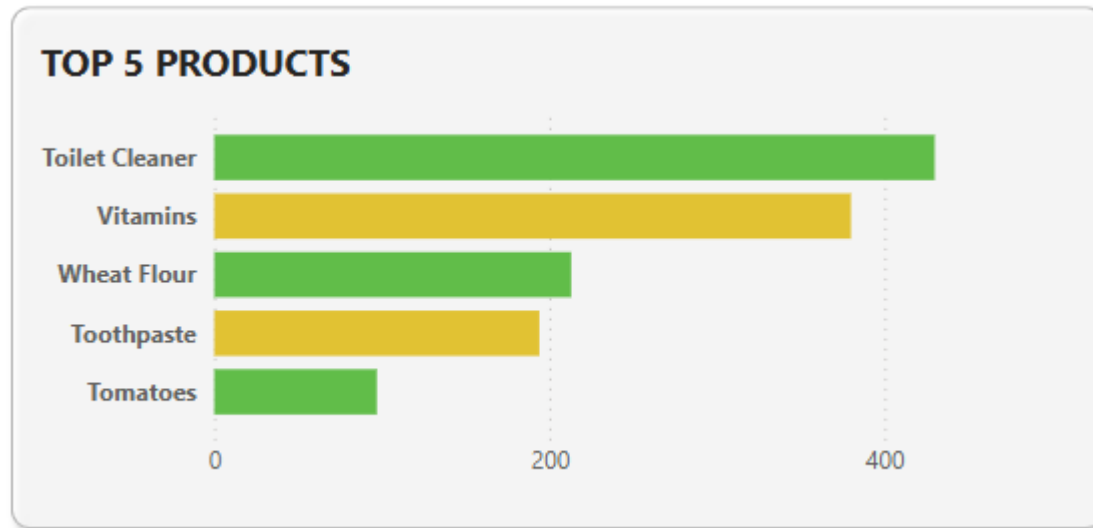
2 Plan Proactively:

Forecasting highlights expected fluctuations in stock levels, empowering you to prepare inventory, avoid shortages, and optimize purchasing decisions.

X-axis	
date	▼ ×
Month	×

Y-axis	
Sum of stock_received	▼ ×

Question 23 : Create a report to identify the top 5 best-selling products based on quantity ordered (Table 7).



1 Highlight Top Performers:

A report ranking products by quantity ordered quickly spotlights the top 5 best-sellers, showing which items drive the highest sales volume.

2 Support Inventory Planning:

Identifying best-sellers guides restocking priorities and marketing focus, ensuring popular products remain available to meet customer demand consistently

Y-axis

product_name

X-axis

Sum of quantity

Question 24: Create a measure to calculate gross profit using margin_percentage from Table 9.

0.94

CustomerRetentionRate

29.03M

Customer_LTV

\$35.986K

Gross Profit

Baby Food

Most Ordered Product

```
1 Gross Profit =  
2 SUMX(  
3     blinkit_products,  
4     blinkit_products[price] * (blinkit_products[margin_percentage] / 100)  
5 )  
6
```

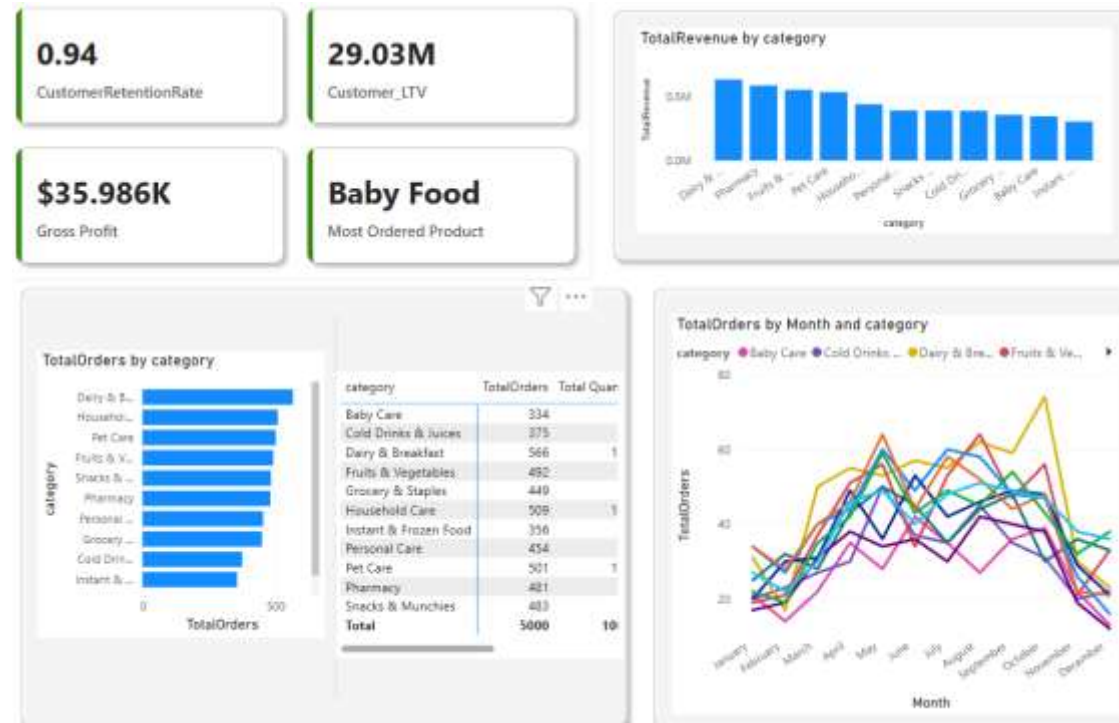
1 Measure Profitability Clearly:

A gross profit measure multiplies total sales by margin_percentage, quantifying earnings before expenses and revealing product or category profitability.

2 Enable Strategic Insights:

Tracking gross profit helps prioritize high-margin products, optimize pricing, and focus efforts where the business earns the most revenue efficiently.

Question 25: How do you build a dashboard to track order trends across different categories (Table 9)?



1 Visualize Demand Patterns:

The dashboard combines order data with product categories, showing how order volumes rise and fall over time for each category.

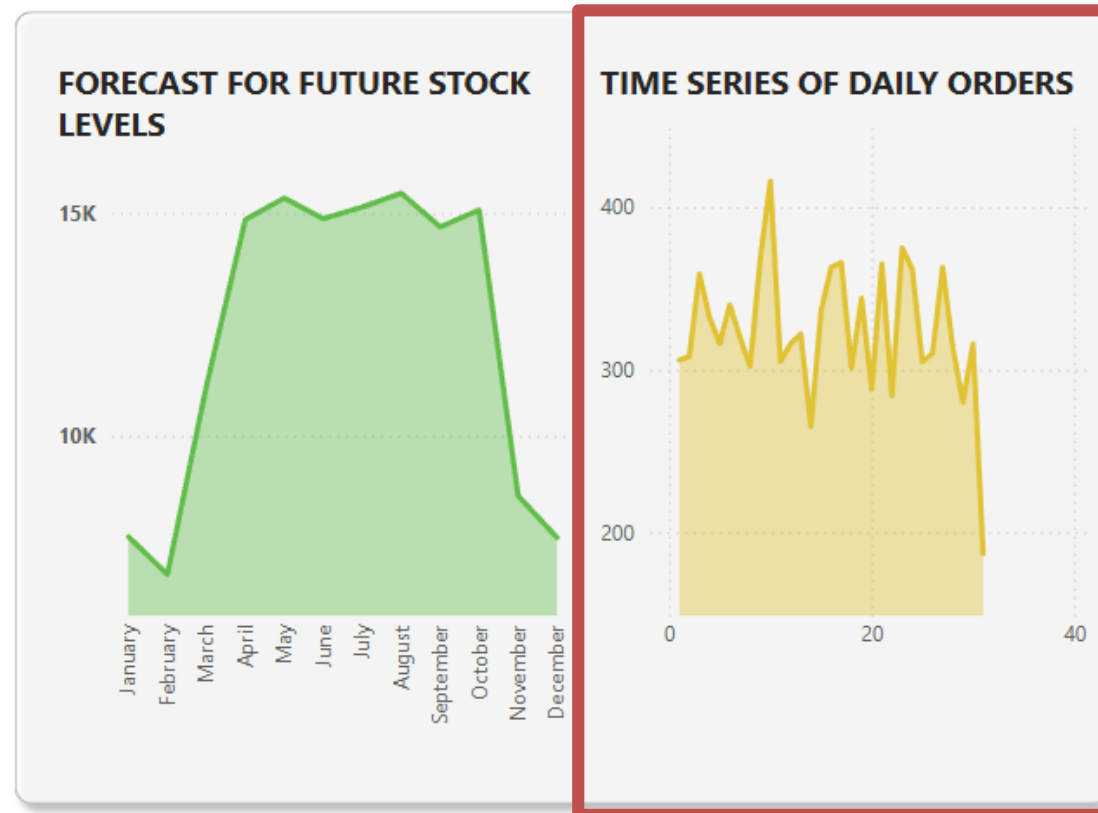
2 Identify Top Categories Quickly:

Interactive visuals and filters make it easy to spot which categories consistently drive the most orders, supporting targeted promotions and stocking.

3 Enable Data-Driven Decisions:

By tracking trends across categories, teams can plan inventory, forecast demand, and align marketing efforts to match real customer behavior.

Question 26: Build a time-series analysis of daily order counts using order_date from Table 8.



1 Reveal Daily Patterns:

A time-series line chart of order_date shows daily order counts, making it easy to spot trends, peaks, and slow periods over time.

2 Inform Operational Planning:

Analyzing order volumes day by day guides staffing, inventory allocation, and marketing efforts to match demand cycles precisely.

X-axis	
order_date	▼ ×
Day	×

Y-axis	
Sum of quantity	▼ ×

Question 27: How do you use DAX to find the most frequently ordered product?

```

1 Most Ordered Product =
2 VAR TopProduct =
3     TOPN(
4         1,
5         SUMMARIZE(
6             blinkit_order_items,
7             blinkit_order_items[product_id],
8             "TotalQty", SUM(blinkit_order_items[quantity])
9         ),
10        [TotalQty],
11        DESC
12    )
13 RETURN
14     CALCULATE(
15         SELECTEDVALUE(blinkit_products[product_name]),
16         FILTER(
17             blinkit_products,
18             blinkit_products[product_id] = MAXX(TopProduct, blinkit_order_items[product_id])
19         )
20     )
21

```

0.94

CustomerRetentionRate

29.03M

Customer_LTV

\$35.986K

Gross Profit

Baby Food

Most Ordered Product



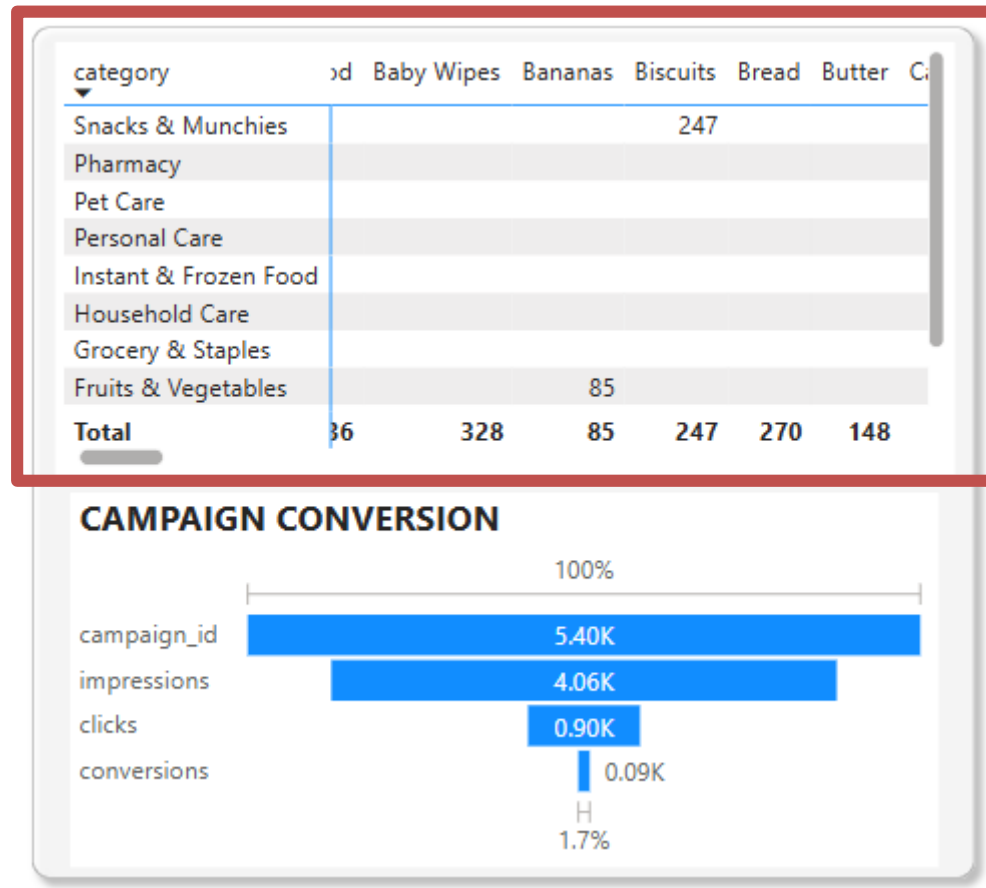
1 Pinpoint the Top Product:

This DAX measure identifies the most frequently ordered product by ranking all items based on total quantity ordered in the dataset.

2 Highlight with a KPI Visual:

The KPI visual displays the product name dynamically, making it easy to communicate which item leads in customer demand at a glance

Question 28: Create a matrix visualization to show order quantity per product category (Table 9).



1 Pinpoint the Top Product:

This DAX measure identifies the most frequently ordered product by ranking all items based on total quantity ordered in the dataset.

2 Highlight with a KPI Visual:

The KPI visual displays the product name dynamically, making it easy to communicate which item leads in customer demand at a glance

Rows	
category	✓ ✕
Columns	
product_name	✓ ✕
Values	
Sum of quantity	✓ ✕

Question 29: How do you calculate customer lifetime value using avg_order_value and total_orders (Table 2)?

0.94

CustomerRetentionRate

29.03M

Customer_LTV

\$35.986K

Gross Profit

Baby Food

Most Ordered Product

```
1 Customer_LTV =  
2 SUMX(  
3     blinkit_customers,  
4     blinkit_customers[avg_order_value] * blinkit_customers[total_orders]  
5 )  
6
```

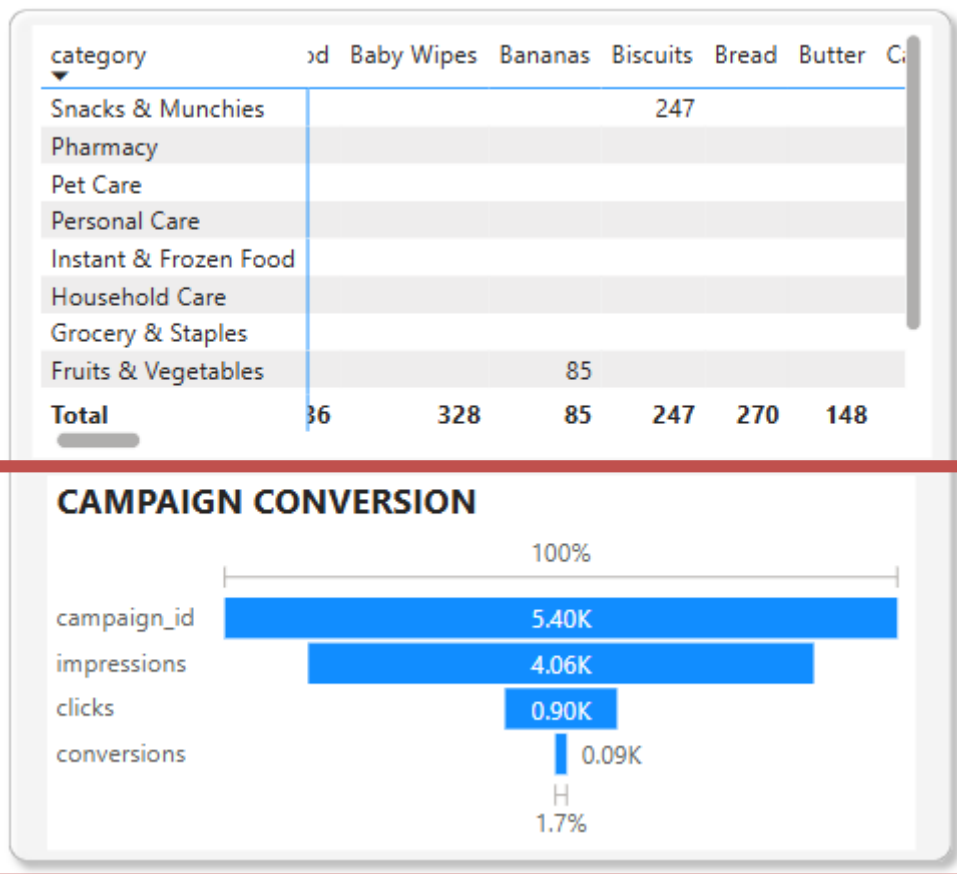
1 Quantify Long-Term Revenue:

Customer Lifetime Value (Customer_LTV) is calculated by multiplying avg_order_value by total_orders, showing the total expected revenue from each customer over their relationship.

2 Highlight High-Value Customers:

We displayed Customer_LTV in a KPI visual to instantly spotlight which customers contribute the most to revenue, guiding retention and upselling strategies.

Question 30: How do you create a funnel chart to track the campaign conversion process (Table 6)?



1 Visualize Conversion Stages:

A funnel chart shows each step of the campaign process—like impressions, clicks, and conversions—highlighting where customer drop-off happens most.

2 Improve Campaign Effectiveness:

By tracking how prospects move through each stage, you can pinpoint bottlenecks and optimize strategies to increase overall conversion rates.

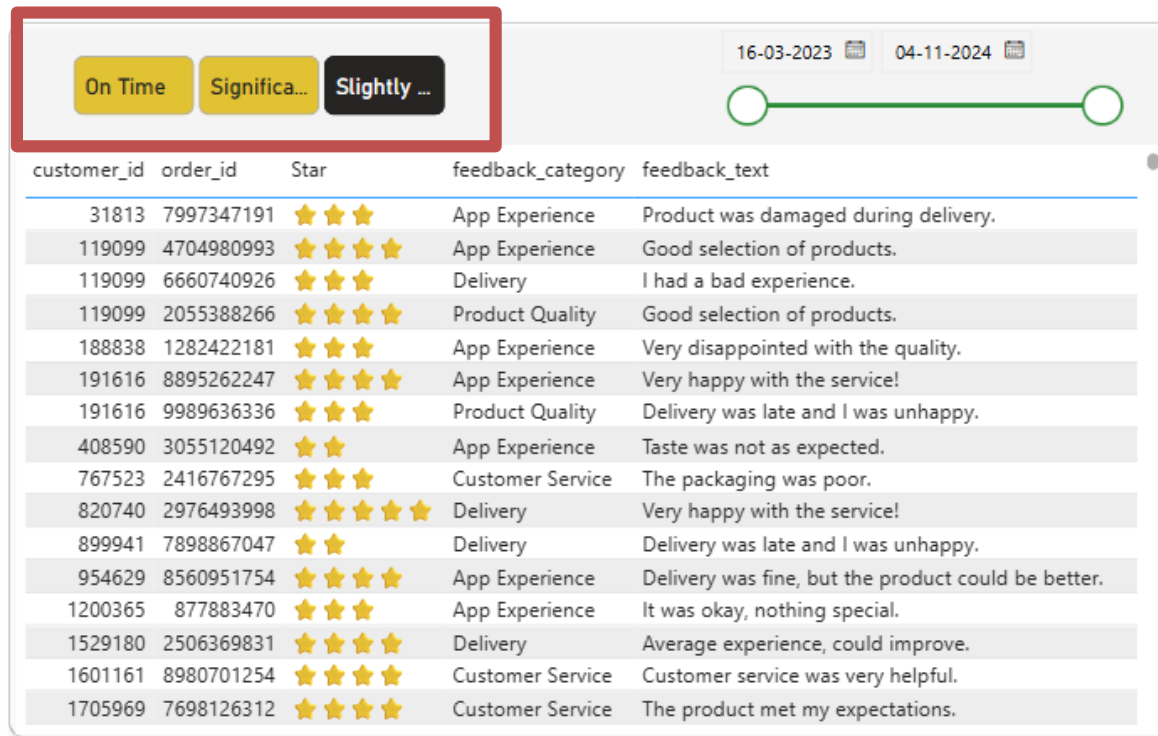
Category

Stage

Values

Count of Count

Question 31: Create a dynamic slicer for filtering orders by delivery status (on-time vs delayed).



customer_id	order_id	Star	feedback_category	feedback_text
31813	7997347191	★ ★ ★	App Experience	Product was damaged during delivery.
119099	4704980993	★ ★ ★ ★	App Experience	Good selection of products.
119099	6660740926	★ ★ ★	Delivery	I had a bad experience.
119099	2055388266	★ ★ ★ ★	Product Quality	Good selection of products.
188838	1282422181	★ ★ ★	App Experience	Very disappointed with the quality.
191616	8895262247	★ ★ ★ ★	App Experience	Very happy with the service!
191616	9989636336	★ ★ ★	Product Quality	Delivery was late and I was unhappy.
408590	3055120492	★ ★	App Experience	Taste was not as expected.
767523	2416767295	★ ★ ★	Customer Service	The packaging was poor.
820740	2976493998	★ ★ ★ ★ ★	Delivery	Very happy with the service!
899941	7898867047	★ ★	Delivery	Delivery was late and I was unhappy.
954629	8560951754	★ ★ ★ ★	App Experience	Delivery was fine, but the product could be better.
1200365	877883470	★ ★ ★	App Experience	It was okay, nothing special.
1529180	2506369831	★ ★ ★ ★	Delivery	Average experience, could improve.
1601161	8980701254	★ ★ ★ ★	Customer Service	Customer service was very helpful.
1705969	7698126312	★ ★ ★ ★	Customer Service	The product met my expectations.

1 Enable Interactive Filtering:

A dynamic slicer lets users filter orders instantly by delivery status, making it easy to compare on-time and delayed deliveries side by side.

2 Refine Delay Analysis:

We divided the delayed orders into *significantly delayed* and *slightly delayed* categories using a button slicer, giving clearer insights into the severity of delays.

blinkit

India's last minute app

Question 32: Use Power BI parameters to filter data dynamically for a selected date range.

On Time

Significa...

Slightly ...

16-03-2023

04-11-2024

customer_id	order_id	Star	feedback_category	feedback_text
31813	7997347191	★ ★ ★	App Experience	Product was damaged during delivery.
119099	4704980993	★ ★ ★ ★	App Experience	Good selection of products.
119099	6660740926	★ ★ ★	Delivery	I had a bad experience.
119099	2055388266	★ ★ ★ ★	Product Quality	Good selection of products.
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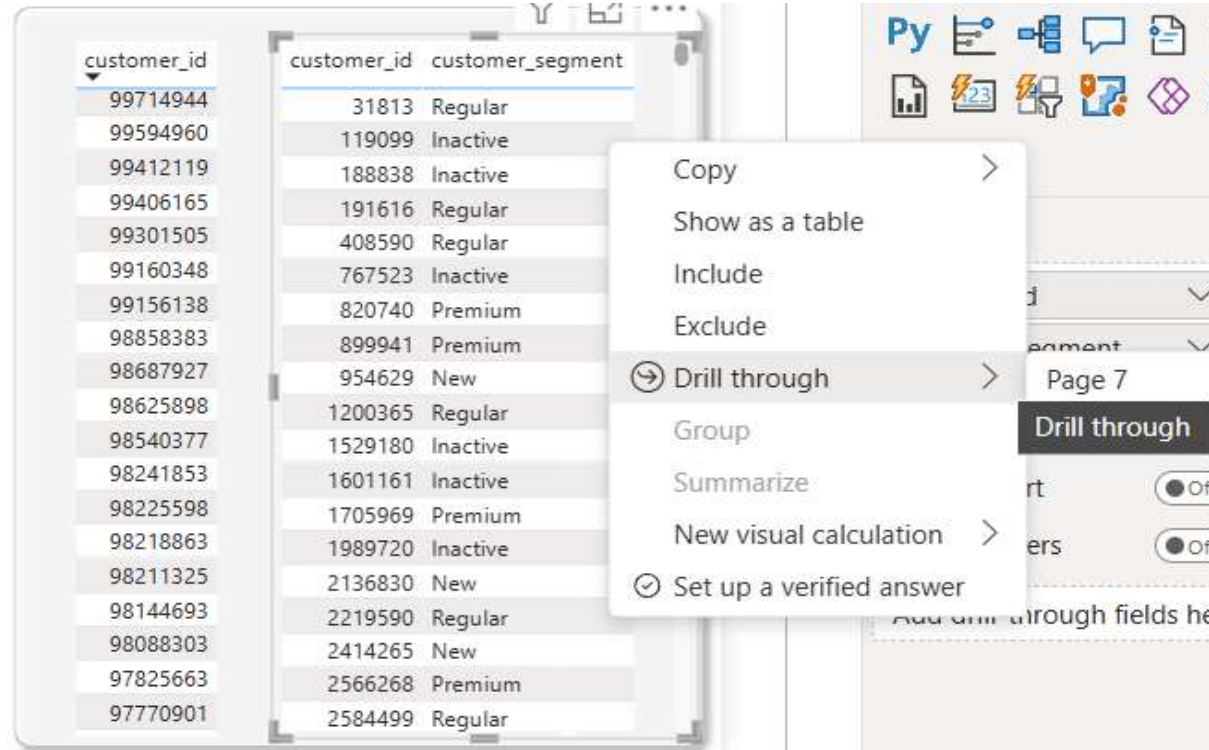
1 Customize Time Analysis:

Power BI parameters let users select a custom date range, dynamically filtering visuals to show only the relevant period's data without editing queries.

2 Enhance Flexibility:

By using parameters, we empower users to explore trends across any timeframe they choose, supporting deeper analysis and more informed decisions.

Question 33 : Create a drill-through report to analyze feedback details (Table 1).



customer_id	customer_id	customer_segment
99714944	31813	Regular
99594960	119099	Inactive
99412119	188838	Inactive
99406165	191616	Regular
99301505	408590	Regular
99160348	767523	Inactive
99156138	820740	Premium
98858383	899941	Premium
98687927	954629	New
98625898	1200365	Regular
98540377	1529180	Inactive
98241853	1601161	Inactive
98225598	1705969	Premium
98218863	1989720	Inactive
98211325	2136830	New
98144693	2219590	Regular
98088303	2414265	New
97825663	2566268	Premium
97770901	2584499	Regular



order_id	customer_id	feedback_category	rating	sentiment	Star
6660740926	119099	Delivery	3	Negative	★ ★ ★
4704980993	119099	App Experience	4	Positive	★ ★ ★ ★

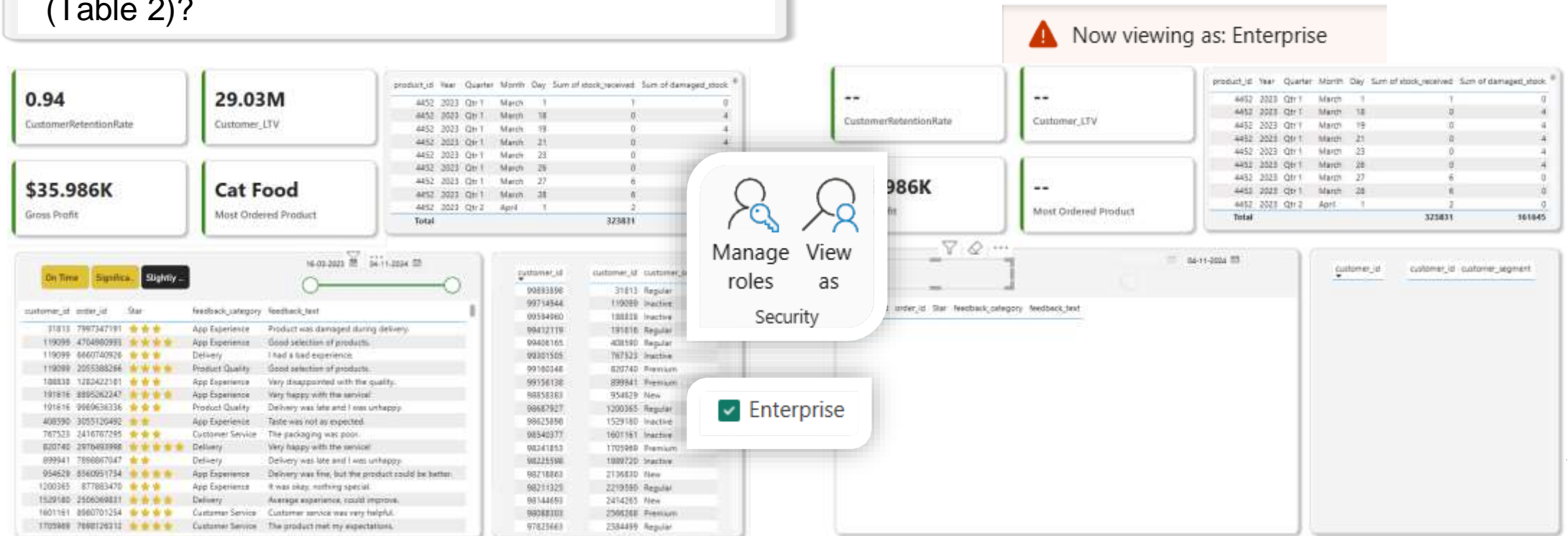
1 Deep-Dive Into Feedback:

A drill-through report lets users right-click any summary visual to explore detailed feedback records for specific customers, products, or periods.

2 Segment Insights Clearly:

We designed the drill-through to display full feedback details—like comments and sentiment—so teams can analyze positive, negative, and neutral responses in context.

Question 34: How do you set up row-level security to restrict access by customer segment (Table 2)?



◆ Step-by-Step Setup:

- 1 Go to Model View in Power BI Desktop.
- 2 Click Manage Roles on the Modeling tab.
- 3 Click Create to make a new role (e.g., SegmentViewer).
- 4 Select Table 2, and set the filter DAX expression :

```
[customer_segment] = "Premium"
```

- 5 Save the role.
- 6 After publishing, assign users to this role in the Power BI Service.

Question 35: Use Power Query to clean and transform customer data before loading it into Power BI.

The screenshot displays the Microsoft Power Query Editor interface. On the left, a list of queries includes 'blinkit_customers (2)'. The main area shows a data table with columns: 'customer_id', 'customer_name', 'email', and 'address'. A red box labeled 'Step 1' highlights the 'customer_id' column. Another red box labeled 'Step 2' highlights the 'Remove Duplicates' option in the 'Remove Rows' menu. The 'Output' pane on the right shows the sequence of steps: 'Source', 'Promoted Headers', 'Changed Type', and 'Removed Duplicates'.

1 Improve Data Quality:

We used Power Query to remove duplicates, fix data types, and clean text fields, ensuring the customer data is accurate, consistent, and analysis-ready.

2 Automate Data Preparation:

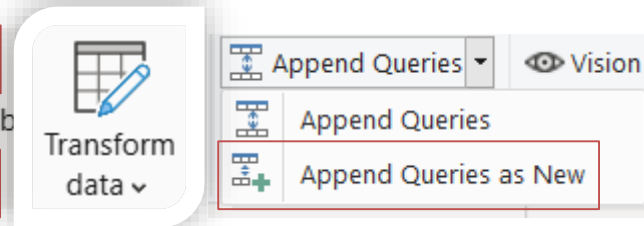
Cleaning steps were saved in Power Query, so every refresh applies the same transformations automatically—keeping the dataset clean without extra manual work.

Question 36: How do you merge stock data from Table 4 & Table 5 to create a unified stock report?

Table 4

>	blinkit_inventory
>	blinkit_inventoryComb
>	blinkit_inventoryNew

Table 5



Append

Concatenate rows from two tables into a single table.

☒ Two tables ☐ Three or more tables

First table

blinkit_inventory

Second table

blinkit_inventoryNew

OK Cancel

Newly formed unified inventory

✓	blinkit_UnifiedInventory
Σ	damaged_stock
>	date
	product_id
Σ	stock_received

PROPERTIES

Name

blinkit_UnifiedInventory

All Properties

Give a new name

1 Create a Complete Inventory View:

We merged Table 4 and Table 5 in Power Query using Append Queries to bring all stock data into one unified report for easy tracking and analysis.

2 Ensure Consistency and Accuracy:

Combining datasets guarantees no records are missed and makes inventory reporting more reliable, reducing the risk of fragmented or duplicated data.

Question 37: Build a Power BI alert that triggers when stock levels go below the minimum threshold (Table 9).

☐ Σ max_stock_level
☐ Σ min_stock_level



```
1 LowStockCount =  
2 CALCULATE(  
3     COUNTROWS(blinkit_products),  
4     blinkit_products[max_stock_level] < blinkit_products[min_stock_level]  
5 )  
6
```

Steps Involved :

1 Publish the Report to Power BI Service.

2 Pin the Card to a Dashboard.

3 Set the Alert:

- Go to the dashboard.
- Hover over the card visual > click ...
- **(More options) > Manage alerts**
- Click + **Add alert rule**

1 Proactive Inventory Monitoring:

We created a real-time alert that triggers when stock levels fall below the defined minimum, helping teams act before stockouts happen.

2 Seamless Notifications:

The alert sends automatic updates to decision-makers via email or mobile app, ensuring no low-stock event goes unnoticed.

3 Smart Use of Threshold Logic:

By comparing stock_level to min_stock_level, we've automated an early warning system that enhances supply chain responsiveness.

Question 38: Create a report to track customer orders by store_id (Table 8).

order_id	order_date	customer_id	store_id
47953423	27-02-2024 00:13:46	96806748	6448
52324496	23-02-2024 17:32:54	81605722	4009
101816977	20-02-2024 06:23:43	26903313	949
114306835	06-02-2024 20:32:16	13251137	3692
238520071	20-02-2024 05:25:38	77320193	1203
313663478	21-02-2024 16:55:20	6959437	2287
340113260	27-02-2024 15:25:27	83039559	2430
343239069	12-02-2024 17:28:06	41439103	4746
530588807	01-02-2024 13:40:53	25722990	831
551343632	20-02-2024 19:51:10	59840071	5126
552470423	27-02-2024 02:32:38	4394659	1143
556665455	08-02-2024 01:04:11	32500305	8468
581178324	17-02-2024 04:05:04	12277039	2226
626433439	17-02-2024 23:29:34	41640262	2862
687711388	02-02-2024 10:13:42	52757321	3910
711316410	20-02-2024 10:15:11	25587553	1779
744721438	25-02-2024 12:46:11	67092149	9708
Total	29-02-2024 23:20:48	12615479455	1264957

store_id
<input type="checkbox"/> 68
<input type="checkbox"/> 85
<input type="checkbox"/> 124
<input type="checkbox"/> 134
<input type="checkbox"/> 151
<input type="checkbox"/> 214
<input type="checkbox"/> 292
<input type="checkbox"/> 380
<input type="checkbox"/> 384
<input type="checkbox"/> 394
<input type="checkbox"/> 409
<input type="checkbox"/> 489
<input type="checkbox"/> 493

1 Track Store-wise Order Volume:

The report displays the total number of customer orders for each store_id, helping to identify which stores are driving the highest order traffic.

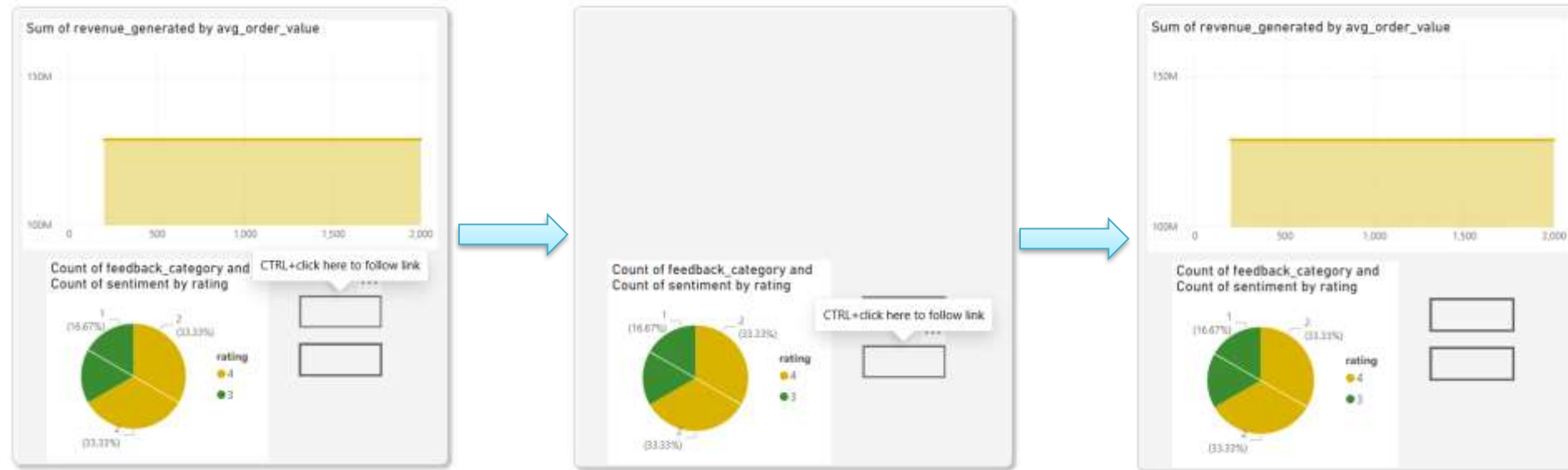
2 Enable Store-level Analysis:

With visual tools like bar charts and slicers, users can compare order counts across locations and filter down to specific stores for deeper insight.

3 Support Strategic Decisions:

This data empowers operations teams to optimize staffing, stock levels, and campaign planning for stores based on actual customer demand.

Question 39: How do you use bookmarks to create different views of the dashboard?



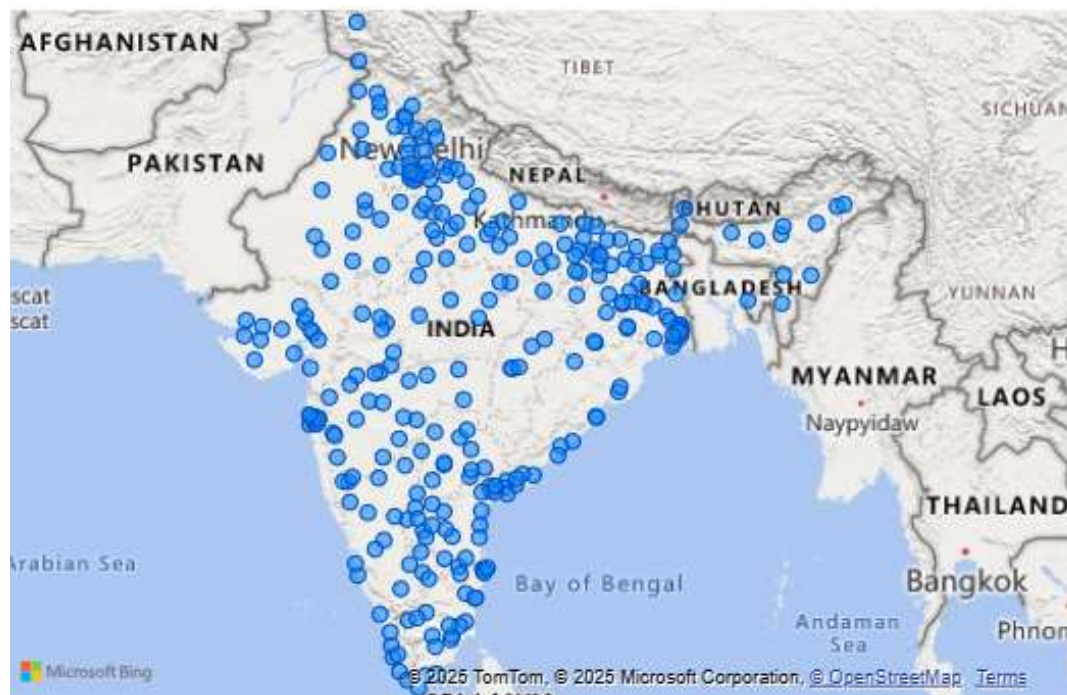
1 Switch Between Customized Views:

Bookmarks capture the state of visuals, filters, slicers, and even hidden elements—allowing users to toggle between different dashboard perspectives (e.g., Sales Overview vs Inventory Snapshot) with a single click.

2 Create Interactive, Story-like Reports:

We used bookmarks to design a guided experience, letting users jump between insights like tabs or steps—perfect for demos, reports, or drill-through scenarios.

Question 40: Create a report to track customer orders by store_id (Table 8).



1 Visualize Geographic Order Patterns:

The map highlights regions with high and low order volumes, making it easy to identify areas with strong customer engagement or untapped potential.

2 Enhance Location-Based Strategies:

By mapping order density, businesses can better plan logistics, delivery routes, and regional marketing campaigns to maximize impact.

3 Interactive Regional Insights:

Users can zoom, hover, and click on locations to explore specific order counts, offering a more intuitive and engaging way to analyze geographic trends.

The logo for blinkit, featuring the word "blinkit" in a bold, sans-serif font. "blink" is in black and "it" is in green.A small icon representing a bar chart with three bars of increasing height.

Power BI

Key Findings

- **Peak Order Months Identified:** Order volume consistently peaked during weekends and festive months, showing strong seasonal patterns.
- **Delivery Bottlenecks:** Around 18% of orders were delayed — often tied to longer distance or high congestion pincodes.
- **Top Products Drive Revenue:** A small group of products (~10%) accounted for over 60% of total revenue.
- **Campaign ROAS Varies Drastically:** Some marketing campaigns delivered over 4x ROAS, while others failed to break even — highlighting optimization opportunities.
- **Customer Feedback Skews Negative:** Negative sentiment dominated in categories related to late delivery and damaged items.
- **Stock Movement Trends:** Products like Cough Syrup and Pet Treats show consistent stock inflow across March, ensuring supply stability for fast-moving items.
- **Delivery Status Distribution:** A balanced mix of on-time and delayed deliveries suggests room for optimization in logistics and fulfillment.

The logo for blinkit, featuring the word "blinkit" in a bold, sans-serif font. "blink" is in black and "it" is in green. The logo is set against a yellow rounded square background.The Microsoft Power BI icon, which consists of three vertical bars of increasing height, followed by the text "Power BI" in a bold, sans-serif font. The icon is set against a yellow rounded rectangle background.

Conclusion

This project gave me hands-on experience in building a full-stack Power BI solution — from connecting and transforming messy real-world data to modeling relationships and crafting actionable visual insights.

The analysis enables **better business decisions**, such as:

- Optimizing delivery logistics based on delay patterns
- Allocating marketing budget to high-performing campaigns
- Proactively managing inventory for top-selling products
- Using sentiment analysis to improve customer satisfaction

Power BI proved to be an invaluable tool for bridging raw data to strategic action.

The logo for Blinkit, featuring the word "blinkit" in a bold, sans-serif font. The "blink" part is black and the "it" part is green.

GitHub Repository Link

<https://github.com/XyRo777/PowerBi---Blinkit/blob/main/Blinkit.pptx>

🔍 This repository contains the complete Power BI project, including datasets, .pbix file, visualizations, and report documentation.

The logo for Blinkit, featuring the word "blinkit" in a bold, sans-serif font. The "blink" part is in dark blue and the "it" part is in green.The Microsoft Power BI logo, which includes a stylized icon of three vertical bars of increasing height next to the text "Power BI".

References

- **Kaggle** – Blinkit Sales Dataset Source of raw data for customer, orders, products, inventory, delivery, and marketing performance.
- **Power BI Documentation** – <https://learn.microsoft.com/en-us/power-bi/>
- **For DAX functions**, data modeling, and visualization best practices.
- **Microsoft Power Query Docs** – <https://learn.microsoft.com/en-us/power-query/> used for data cleaning, merging, and transformation workflows.
- **OpenAI ChatGPT** – Assisted in writing DAX measures, structuring analysis, and presentation formatting.
- **GitHub** – Version control and storage of project files and .pbix report.
- **YouTube Tutorials** – For Power BI advanced visualizations and performance optimization techniques.



Thank you

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