

# BUSINESS DATA MANAGEMENT

## BANA279

### Blinkit Sales Trends

Team 5A

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# Business Background

## Core Problems :

- Inconvenience in Grocery Shopping
- Limited Access to Fresh Products
- Inefficient Delivery Systems
- Lack of Transparency in Pricing and Stock Availability



# Blinkit Business Overview

- **Company Name:** Blinkit (formerly known as Grofers)
- **Founded:** 2013
- **Headquarters:** Gurugram, Haryana, India
- **Industry:** E-commerce, Online Grocery Delivery
- **IPO:** Listed on the Indian Stock Exchange in 2021
- **Key Services:**
  - On-demand grocery delivery in as little as 10-30 minutes
  - Product listings, reviews, and customer feedback mechanisms
  - Marketing campaigns and advertising services for businesses



# Entities

Entity	Definition	Examples
BLINKIT_CUSTOMER	Contains information, location, and segmentation, helping in understanding customer demographics and behavior.	CustomerID : 24696
BLINKIT_PRODUCTS	Contains information about various products available for sale, including their categorization, brand association, pricing details, and stock management parameters. It helps in inventory tracking and product analysis.	ProductName : Onions
BLINKIT_ORDERS	Represents purchases made by customers, linking them to payment methods, transaction amounts, and delivery logistics. It is crucial for tracking sales, understanding order trends, and managing fulfillment.	OrderID : 57384637949567
BLINKIT_ORDER_ITEMS	Captures details of items within each order, specifying the products purchased, their quantities, and pricing. This data is useful for sales analytics and understanding product demand at an individual order level.	Quantity : 2
BLINKIT_INVENTORY	Maintains stock availability and movement, tracking new stock received and damaged items. It supports warehouse management and ensures products are available for order fulfillment.	Date : 3/1/2023
BLINKIT_CUSTOMER_FEEDBACK	Stores customer opinions and satisfaction levels regarding their orders. It includes textual feedback, ratings, sentiment analysis, and categorized issues, aiding in service improvement and customer experience analysis.	Rating : 5
BLINKIT_DELIVERY_PERFORMANCE	Monitors the efficiency of the delivery process, comparing promised vs. actual delivery times, travel distances, and potential delays. This data is key to optimizing logistics and improving delivery reliability.	Distance_km : 2.3

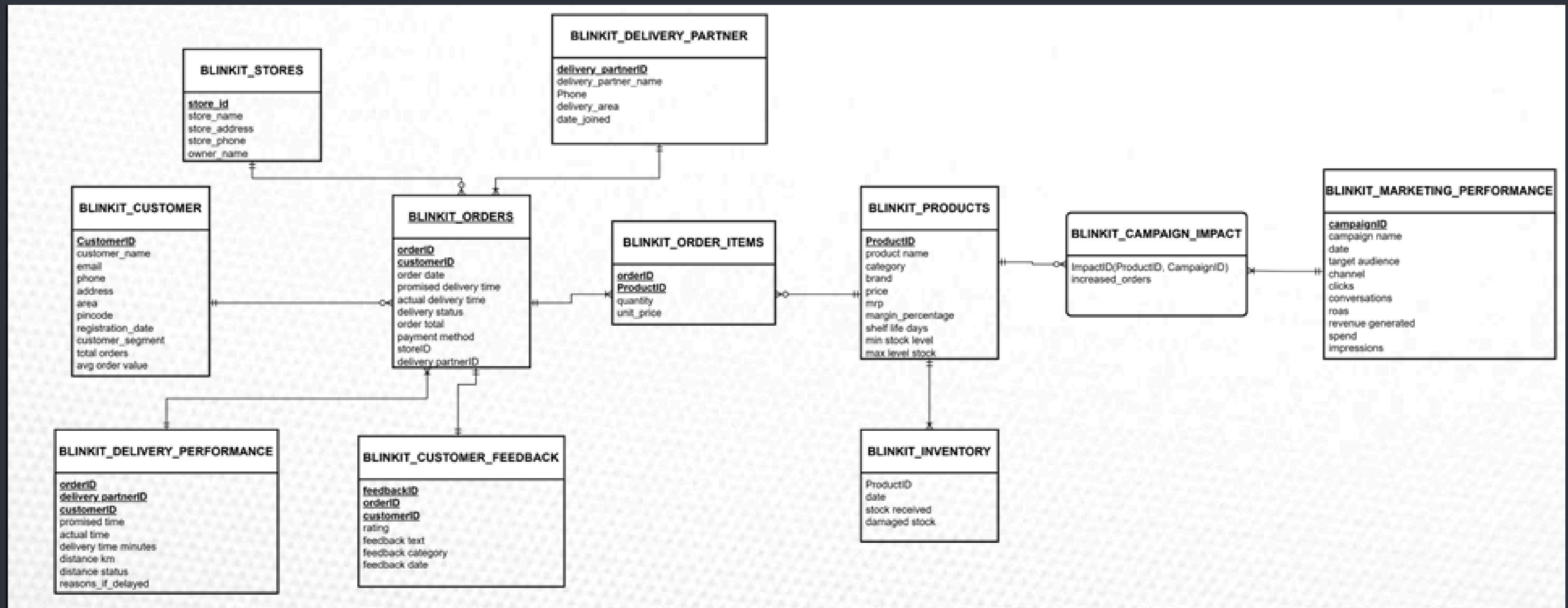
# Metadata

Name	variables	Type	Minimum	Maximum	Definition
BLINKIT_CUSTOMER	Customer_id (Primary Key)	Integer	31813	99893898	A unique identifier assigned to each customer.
	customer_name	Alphanumeric			The full name of the customer.
	Email	Alphanumeric			The email address associated with the customer.
	Phone	Integer	910013225561	919998768162	The phone number of the customer.
	Address	Alphanumeric			The residential address of the customer.
	Area	Alphanumeric			The city or locality where the customer resides.
	Pincode	Integer	666	999631	The postal code corresponding to the customer's address.
	Registration_date	Date	3/16/2023	11/4/2024	The date when the customer registered on the platform.
	Customer_segment	Alphanumeric			The category/classification of the customer based on engagement or purchasing behavior
	Total_orders	Integer	1	20	The total number of orders placed by the customer.
BLINKIT_PRODUCTS	Avg_order_value	Float	200.43	1999.83	The average value of the customer's orders.
	Product_id (Primary Key)	Integer	4452	993331	A unique identifier assigned to each product.
	Product_name	Alphanumeric			The name of the product.
	Category	Alphanumeric			The classification or type of the product (e.g., Fruits & Vegetables, Dairy, etc.).
	Brand	Alphanumeric			The manufacturer or company associated with the product.
	Price	Float	12.32	995.98	The selling price of the product on the platform.
	Mrp	Float	17.6	1633.32	The Maximum Retail Price (MRP) of the product.
	Margin_percentage	Float	15	40	The percentage profit margin on the product.
	Shelf_life_days	Integer	3	365	The number of days the product remains fresh or usable before expiration.
	Min_stock_level	Integer	10	30	The minimum stock quantity required to be maintained for the product.
BLINKIT_ORDERS	Max_stock_level	Integer	50	100	The maximum stock quantity that can be held for the product.
	Order_id (Primary Key)	Integer	60465	9998297778	A unique identifier assigned to each order.
	Customer_id	Integer	31813	99893898	The unique identifier of the customer who placed the order.
	Order_date	Date	3/16/23 8:10	11/4/24 20:29	The timestamp when the order was placed.
	Promised_delivery_time	Date	3/16/23 8:27	11/4/24 20:43	The expected delivery time as committed to the customer
	Actual_delivery_time	Date	3/16/23 8:24	11/4/24 20:47	The actual timestamp when the order was delivered.
	Delivery_status	Alphanumeric			The status of the order delivery (e.g., "On Time", "Delayed")
	Order_total	Float	13.25	6721.46	The total monetary value of the order.
	Payment_method	Alphanumeric			The method used by the customer to pay for the order (e.g., Cash, Card, UPI).
	store_id	Integer	1	9995	The unique identifier of the store from which the order was processed.
	Delivery_partner_id	Integer	43	99968	The unique identifier of the delivery agent assigned to fulfill the order.

# Metadata

<b>BLINKIT_ORDER_ITEMS</b>	Order_id (Primary Key)	Integer	60465	9998297778	A unique identifier linking the order item to the respective order.
	Product_id	Integer	4452	993331	The unique identifier of the product included in the order.
	Quantity	Integer	1	3	The number of units of the product purchased in the order.
	unit_price	Float	12.32	995.98	The price per unit of the product at the time of purchase.
<b>BLINKIT_INVENTORY</b>	Product_id (Primary Key)	Integer	4452	993331	The unique identifier of the product in inventory.
	Date	Date	3/1/2023	11/1/2024	The recorded month and year for inventory updates.
	Stock_received	Integer	1	4	The number of new stock units received for the product.
	damaged_stock	Alphanumeric	0	7	The number of stock units identified as damaged and unusable.
<b>BLINKIT_CUSTOMER_FEEDBACK</b>	Feedback_id (Primary Key)	Integer	947	9999293	A unique identifier for each customer feedback entry
	Order_id	Integer	60465	9998297778	The unique identifier linking the feedback to the respective order.
	Customer_id	Integer	31813	99893898	The unique identifier of the customer providing the feedback.
	Rating	Float	1	5	A numerical rating provided by the customer (e.g., out of 5).
	Feedback_text	Alphanumeric			The written feedback provided by the customer.
	Feedback_category	Alphanumeric			The category of the feedback (e.g., Delivery, App Experience).
	Sentiment	Alphanumeric			The sentiment classification of the feedback (e.g., Positive, Neutral, Negative).
<b>BLINKIT_DELIVERY_PERFORMANCE</b>	feedback_date	Date	3/16/2023	11/4/2024	The date when the feedback was submitted.
	Order_id	Integer	60465	9998297778	A unique identifier linking the delivery record to the respective order.
	Delivery_partner_id (Primary Key)	Integer	43	99968	The unique identifier of the delivery agent responsible for fulfilling the order.
	Promised_time	Date	3/16/23 8:27	11/4/24 20:43	The expected delivery time committed to the customer.
	Actual_time	Date	3/16/23 8:24	11/4/24 20:47	The actual timestamp when the order was delivered.
	Delivery_time_minutes	Integer	-5	30	The total time (in minutes) taken to deliver the order.
	Distance_km	Float	0.5	5	The distance (in kilometers) covered by the delivery agent.
	Distance_status	Alphanumeric			The status of the delivery (e.g., On Time, Delayed).
	reasons_if_delayed	Alphanumeric			The reason for the delay in delivery, if applicable (e.g., Traffic).

# Entity Relationship Diagram



# Entity Relationship

BLINKIT_CUSTOMER - BLINKIT_ORDERS	A customer can submit 0 or more number of orders
	Every order must be submitted by exactly one customer
BLINKIT_ORDER_ITEMS - BLINKIT_PRODUCTS	One BLINKIT_PRODUCT.product can appear in 0 or more BLINKIT_ORDER_ITEMS.product
	Each BLINKIT_ORDER_ITEMS.product belongs to exactly one BLINKIT_PRODUCT.product
BLINKIT_ORDERS - BLINKIT_ORDER_ITEMS	An order must have one or more items
	One or more items can belong to one order
BLINKIT_INVENTORY - BLINKIT_PRODUCTS	A BLINKIT_INVENTORY.product has exactly 1 BLINKIT_PRODUCT.product
	Every inventory receives 1 or more products
BLINKIT_DELIVERY_PERFORMANCE - BLINKIT_ORDERS	A delivery partner can deliver 1 or more orders
	Every order has exactly 1 delivery partner
BLINKIT_CUSTOMER_FEEDBACK - BLINKIT_ORDER	Every order can have exactly 1 customer feedback
	Every customer feedback is about exactly 1 order item
BLINKIT_MARKETING_PERFORMANCE - BLINKIT_PRODUCTS	Each product can have 0 or more campaigns
	Every campaign is about 1 or more products

# Entity Relationship Diagram

Business rules that is reflected in the above relationships.

01 Customer & Orders

02 Delivery & Performance

03 Inventory & Products

04 Marketing & Campaigns

05 Customer Feedback & Insights

# Entity Relationship Diagram

Business rules that is reflected in the above relationships.

01 Customer & Orders

1. **Customer Uniqueness:** Each customer is uniquely identified by CustomerID and must have a valid email and phone number.

02 Delivery & Performance

2. **Order Processing:** Orders must have a valid customerID, storeID, and delivery\_partnerID to be processed.

03 Inventory & Products

3. **Order Status Tracking:** Each order has a promised delivery time and an actual delivery time, and its status must be tracked.

04 Marketing & Campaigns

4. **Payment Completion:** An order cannot be marked as delivered unless the payment has been successfully processed.

05 Customer Feedback & Insights

5. **Customer Segmentation:** Customers are classified into segments based on total orders and average order value for marketing and promotions.

# Entity Relationship Diagram

Business rules that is reflected in the above relationships.

01 Customer & Orders

02 Delivery & Performance

03 Inventory & Products

04 Marketing & Campaigns

05 Customer Feedback & Insights

- 
1. **Delivery Partner Assignment:** Each order must be assigned to an available delivery partner (delivery\_partnerID).
  2. **Delivery Time Tracking:** The actual delivery time must be recorded, and if delayed, a reason must be provided in reasons\_if\_delayed.
  3. **Distance Impact:** Orders with longer distances (distance km) may have higher delivery time and impact delivery performance scores.
  4. **Service Level Agreement (SLA):** If an order is delayed beyond the promised time, a compensation or penalty may be applied.

# Entity Relationship Diagram

Business rules that is reflected in the above relationships.

01 Customer & Orders

02 Delivery & Performance

03 Inventory & Products

04 Marketing & Campaigns

05 Customer Feedback & Insights

1. **Stock Levels:** Products must have a minimum and maximum stock level to avoid stockouts or overstocking.
2. **Shelf Life Management:** Products with an expiry date must be managed to prevent delivery of expired goods.
3. **Inventory Updates:** Stock received and damaged stock must be updated in the BLINKIT\_INVENTORY table.
4. **Product Pricing & Margin:** Each product has a margin percentage, which determines the profitability per sale.

# Entity Relationship Diagram

Business rules that is reflected in the above relationships.

01 Customer & Orders

02 Delivery & Performance

03 Inventory & Products

04 Marketing & Campaigns

05 Customer Feedback & Insights

1. **Campaign Performance Tracking:** Each campaign must track key metrics like clicks, impressions, conversions, revenue, and ROAS (Return on Ad Spend).
2. **Targeted Promotions:** Marketing campaigns should be customer-segment specific to optimize engagement and conversion.
3. **Campaign Impact Analysis:** The **BLINKIT\_CAMPAIGN\_IMPACT** table must measure how campaigns influence increased orders for specific products.

# Entity Relationship Diagram

Business rules that is reflected in the above relationships.

01 Customer & Orders

02 Delivery & Performance

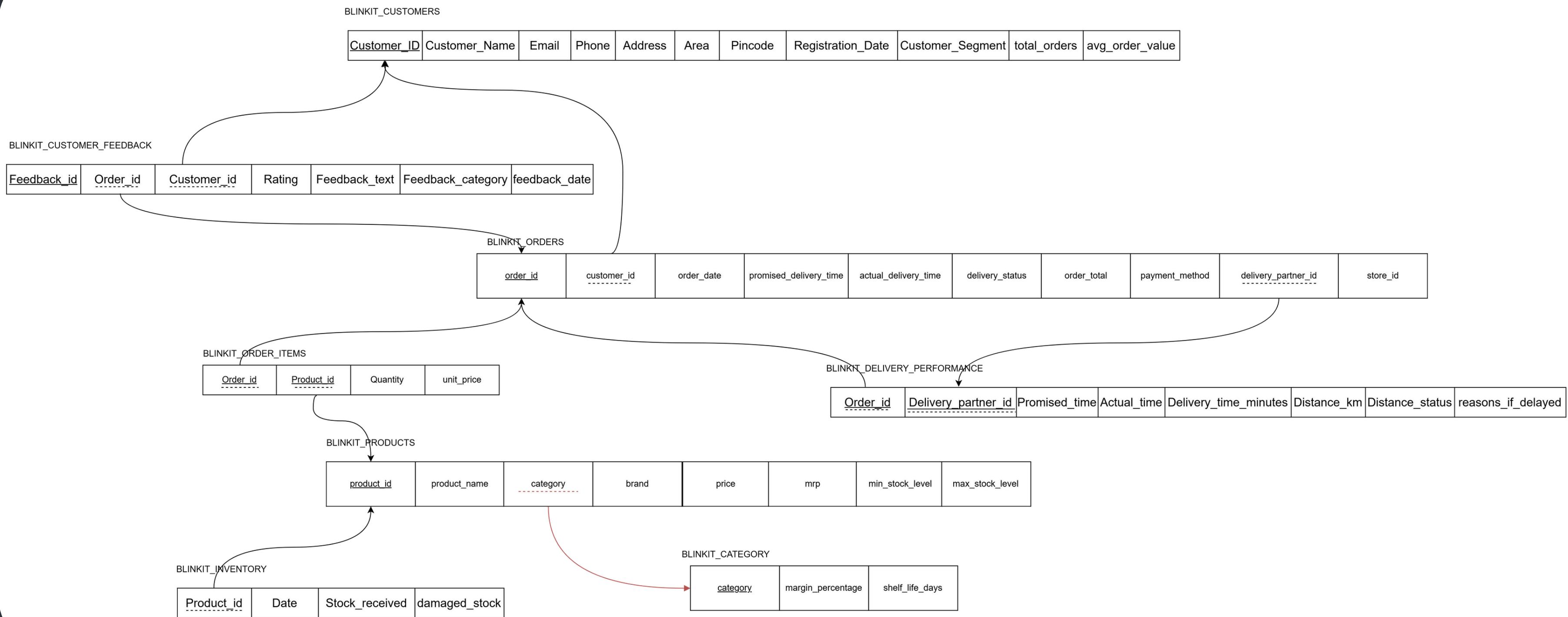
03 Inventory & Products

04 Marketing & Campaigns

05 Customer Feedback & Insights

1. **Feedback Collection:** Every order allows customers to submit feedback (rating, feedback text, feedback category).
2. **Service Improvement:** Repeated negative feedback (low ratings) should trigger service improvement actions.
3. **Customer Loyalty Metrics:** Customers with consistent high order values should be considered for loyalty programs.

# Relational Data Model



# As-Is Diagram

BLINKIT_CUSTOMER_FEEDBACK						
Full dependency						
<u>Feedback_id</u>	Order_id	Customer_id	Rating	Feedback_text	Feedback_category	feedback_date

The BLINKIT\_CUSTOMER\_FEEDBACK table shows the full dependency of feedback data, where Feedback\_ID is the primary key, and Customer\_ID and Order\_ID define the relationship between feedback, customer, and order details.

BLINKIT_CUSTOMERS										
Full dependency										
<u>Customer_ID</u>	Customer_Name	Email	Phone	Address	Area	Pincode	Registration_Date	Customer_Segment	total_orders	avg_order_value

The BLINKIT\_CUSTOMERS table displays the full dependency for customer data, where Customer\_ID is the primary key, and attributes like Customer\_Name, Email, Address, and Avg\_Order\_Value provide a complete profile of each customer.

# As-Is Diagram

BLINKIT_DELIVERY_PERFORMANCE							
Full dependency							
Order_id	Delivery_partner_id	Promised_time	Actual_time	Delivery_time_minutes	Distance_km	Distance_status	reasons_if_delayed

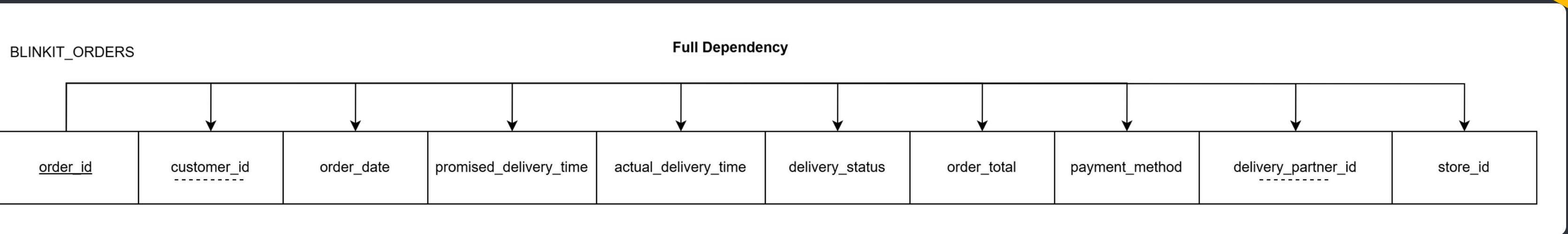
The BLINKIT\_DELIVERY\_PERFORMANCE table shows the full dependency of delivery data, where OrderID is the primary key, and Delivery\_partner\_id, Promised\_time, Actual\_time, and other time-related fields define the performance of each delivery. This structure ensures all performance-related data is tied to the respective order and delivery partner, enabling efficient tracking of delivery timelines and delays.

BLINKIT_INVENTORY			
Full dependency			
Product_id	Date	Stock_received	damaged_stock

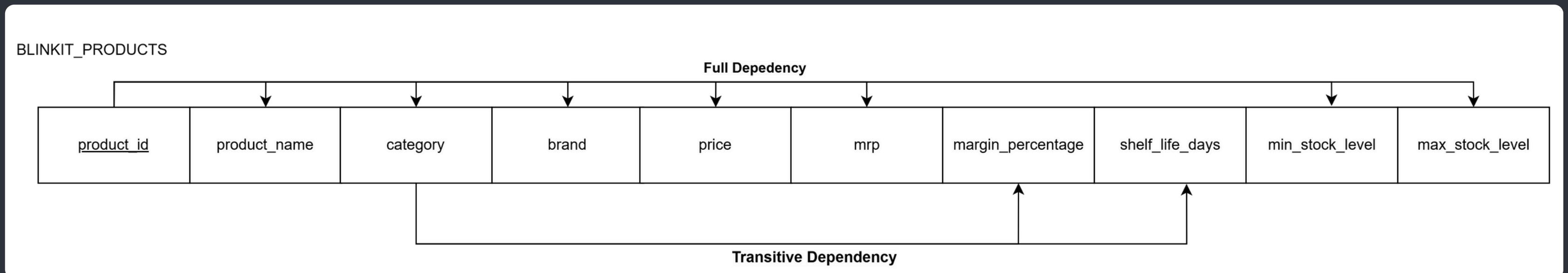
BLINKIT_ORDER_ITEMS			
Full Dependency			
Order_id	Product_id	Quantity	unit_price

The BLINKIT\_INVENTORY and BLINKIT\_ORDER\_ITEMS tables depict the full dependency of inventory and order data, where ProductID and OrderID are the primary keys. The tables manage product stock and order details such as quantities and pricing, enabling real-time inventory management and precise tracking of products associated with each order.

# As-Is Diagram

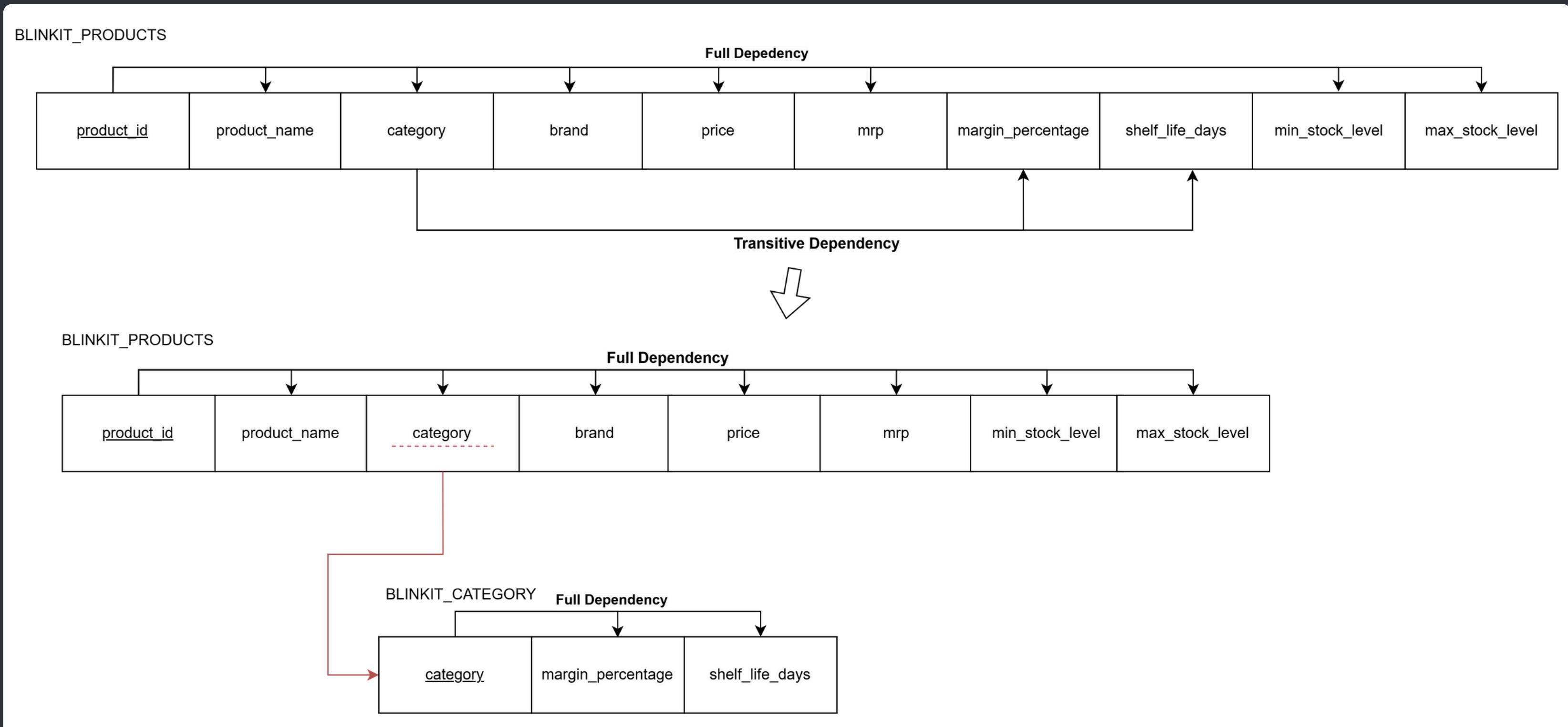


The BLINKIT\_ORDER\_ITEMS table represents normalized data for sales transactions, where OrderID and ProductID are primary keys. This structure eliminates redundancy by maintaining accurate and non-repetitive details for each product within a specific order.



The BLINKIT\_PRODUCTS table shows normalized data for product details, where ProductID is the primary key, and attributes like category, brand, and price are stored with full dependency, ensuring there is no redundancy and that each piece of information is uniquely identified.

# Normalized Tables (3NF)



# Data Tables in 3 NF

**BLINKIT\_PRODUCT**

product_id	Product_name	Category	Brand	Price	Mrp	Min_stock_level	Max_stock_le
4452	Baby Wipes	Baby Care	Morar-Mistry	170	243	27	100
6405	Baby Food	Baby Care	Kashyap-Reddy	237	338	11	81
9436	Toothpaste	Personal Care	Naidu PLC	88	136	19	76
11422	Potatoes	Fruits & Vegetables	Ramaswamy-Tata	127	170	20	65
14145	Spinach	Fruits & Vegetables	Thakur, Shah and Pingle	631	841	14	53
15314	Cheese	Dairy & Breakfast	Banik-Ratta	579	724	30	91
18035	Dish Soap	Household Care	Ramesh Inc	969	1292	12	87
26060	Vitamins	Pharmacy	Shah and Sons	343	429	25	57
33797	Pain Reliever	Pharmacy	Gaba LLC	888	1110	12	51
33955	Frozen Pizza	Instant & Frozen Food	Baral Group	186	310	29	84
34186	Mangoes	Fruits & Vegetables	Mandal-Kar	926	1234	27	74
34200	Lotion	Personal Care	Munshi-Grewal	320	492	19	75
36412	Dish Soap	Household Care	Muni-Shankar	398	530	27	92
39154	Mangoes	Fruits & Vegetables	Suresh, Bose and Bajwa	947	1262	21	84

**BLINKIT\_CATEGORY**

	Category	Margin_percentage	Shelf_life_days
►	Baby Care	30	365
	Personal Care	35	365
	Fruits & Vegetables	25	3
	Dairy & Breakfast	20	7
	Household Care	25	365
	Pharmacy	20	365
	Instant & Frozen Food	40	180
	Pet Care	35	365
	Grocery & Staples	15	365
	Cold Drinks & Juices	30	180
	Snacks & Munchies	35	90

# QUERY 1

The screenshot shows a MySQL query editor interface. At the top, there are various icons for file operations, search, and preferences. The title bar says "Don't Limit". Below the title bar is the SQL query:

```
1 •  use blinkit;
2 •  SELECT c.customer_ID, c.Customer_Name, c.total_orders, c.avg_order_value
3     FROM blinkit_customers c
4   WHERE c.total_orders > (
5       SELECT AVG(total_orders) FROM blinkit_customers
6   )
7   AND c.avg_order_value > (
8       SELECT AVG(avg_order_value) FROM blinkit_customers
9   )
10  ORDER BY c.total_orders DESC, c.avg_order_value DESC
11  LIMIT 10;
```

Below the query is a "Result Grid" table with columns: customer\_ID, Customer\_Name, total\_orders, and avg\_order\_value. The table contains 10 rows of data:

	customer_ID	Customer_Name	total_orders	avg_order_value
▶	75732571	Garima Behl	20	1982
	35237846	Bakhshi Varkey	20	1969
	90666073	Pratyush Dhar	20	1969
	25221501	Pratyush De	20	1936
	82374625	Ronith Sami	20	1924
	49769532	Yashawini Barman	20	1923
	3893903	Bimala Sura	20	1923
	72415263	Dakshesh Varughese	20	1914
	42366724	Quincy Kari	20	1896
	1342184	Girish Sem	20	1894

At the bottom, there is an "Output" section titled "Action Output" showing two log entries:

#	Time	Action	Message
32	01:47:46	SELECT c.customer_ID, c.Customer_Name, c.total_orders, c.avg_order_value FROM blinkit_...	10 row(s) returned
33	01:48:10	SELECT c.customer_ID, c.Customer_Name, c.total_orders, c.avg_order_value FROM blinkit_...	10 row(s) returned

## Purpose:

Identify top customers based on total orders and average order value to target them for loyalty programs.

## Insights

Helps in loyalty program targeting and personalized promotions.

# QUERY 2

```
14 •  SELECT d.order_ID, d.delivery_partner_ID, d.promised_time,
15      d.actual_time, d.delivery_time_minutes, d.reasons_if_delayed
16  FROM blinkit_delivery_performance d
17 WHERE d.actual_time > d.promised_time;
18
```

Result Grid | Filter Rows: Export: Wrap Cell Content: Fetch rows:

order_ID	delivery_partner_ID	promised_time	actual_time	delivery_time_minutes	reasons_if_delayed
60465	58998	2024-10-23 05:34:29	2024-10-23 05:39:29	5	Traffic
2237858	97945	2023-04-02 04:00:11	2023-04-02 04:03:11	3	Traffic
3101265	20246	2024-05-23 03:37:47	2024-05-23 03:40:47	3	Traffic
5120698	48582	2023-06-09 12:25:20	2023-06-09 12:40:20	15	Traffic
5512907	44545	2023-04-30 21:11:21	2023-04-30 21:26:21	15	Traffic
8701796	41266	2024-08-19 19:14:44	2024-08-19 19:23:44	9	Traffic
10161194	58293	2023-12-24 23:28:35	2023-12-24 23:31:35	3	Traffic
10448052	47308	2023-08-05 10:21:05	2023-08-05 10:26:05	5	Traffic
11467999	1908	2023-04-23 18:57:26	2023-04-23 19:11:26	14	Traffic
14103943	25400	2023-11-24 09:07:35	2023-11-24 09:18:35	11	Traffic

blinkit\_delivery\_performance7 x

Action Output

#	Time	Action	Message
86	02:14:02	SELECT * FROM blinkit.blinkit_delivery_performance	5000 row(s) returned
87	02:17:27	SELECT d.order_ID, d.delivery_partner_ID, d.promised_time, d.actual_time, d.delivery_time... d.actual_time, d.delivery_time... d.actual_time, d.delivery_time...	3098 row(s) returned
88	02:17:43	SELECT d.order_ID, d.delivery_partner_ID, d.promised_time, d.actual_time, d.delivery_time... d.actual_time, d.delivery_time... d.actual_time, d.delivery_time...	3098 row(s) returned

**Purpose:**  
**Identify delayed orders and their reasons to improve delivery efficiency.**

**Insight:**  
**Helps in analyzing delayed deliveries, their reasons, and potential process improvements.**

# QUERY 3

```
22 •   SELECT p.product_ID, p.product_name, p.category,
23           SUM(oi.quantity * oi.unit_price) AS total_revenue
24   FROM blinkit_order_items oi
25   INNER JOIN blinkit_products p ON oi.product_ID = p.product_ID
26   GROUP BY p.product_ID, p.product_name, p.category
27   ORDER BY total_revenue DESC
28   LIMIT 10;
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	product_ID	product_name	category	total_revenue
▶	51036	Baby Food	Baby Care	65240
	34186	Mangoes	Fruits & Vegetables	56486
	880510	Bread	Dairy & Breakfast	55158
	557908	Vitamins	Pharmacy	51810
	264803	Vitamins	Pharmacy	51792
	739534	Toilet Cleaner	Household Care	48755
	18035	Dish Soap	Household Care	46512
	883013	Eggs	Dairy & Breakfast	45540
	349294	Onions	Fruits & Vegetables	44880
	112390	Toothpaste	Personal Care	43900

Result 3 ×

Output

Action Output

#	Time	Action	Message
✗	37 01:50:15	SELECT p.product_ID, p.product_name, p.category, SUM(oi.quantity * oi.unit_price) AS tota...	Error Code: 1054. Unknown column 'tota...' in 'field list'
✓	38 01:50:27	SELECT p.product_ID, p.product_name, p.category, SUM(oi.quantity * oi.unit_price) AS tota...	10 row(s) returned

Purpose:

Purpose: Identify the top-selling products based on revenue.

Insight:

Helps in inventory optimization and marketing campaign planning for high-performing products.

# QUERY 4

```
31
32 •  SELECT p.product_ID, p.product_name, p.category,
33      COUNT(DISTINCT oi.order_ID) AS total_orders,
34      SUM(oi.quantity) AS total_quantity_sold
35  FROM blinkit_order_items oi
36  INNER JOIN blinkit_products p ON oi.product_ID = p.product_ID
37  GROUP BY p.product_ID, p.product_name, p.category
38  ORDER BY total_orders DESC, total_quantity_sold DESC
39  LIMIT 10;
40
41
```

Result Grid | Filter Rows: \_\_\_\_\_ | Export: | Wrap Cell Content:

product_ID	product_name	category	total_orders	total_quantity_sold
51036	Baby Food	Baby Care	34	70
820973	Baby Wipes	Baby Care	33	68
34186	Mangoes	Fruits & Vegetables	29	61
992178	Pain Reliever	Pharmacy	29	60
880510	Bread	Dairy & Breakfast	29	58
131748	Dog Food	Pet Care	29	49
604184	Toilet Cleaner	Household Care	28	62
89084	Milk	Dairy & Breakfast	28	56
654623	Chips	Snacks & Munchies	28	55
123983	Cough Syrup	Pharmacy	27	55

Result 9 x

Output

Action Output

#	Time	Action	Message
91	02:57:03	SELECT p.product_ID, p.product_name, p.category, COUNT(DISTINCT oi.order_ID) AS t...	10 row(s) returned
92	02:57:47	SELECT p.product_ID, p.product_name, p.category, COUNT(DISTINCT oi.order_ID) AS t...	10 row(s) returned

**Purpose:**

**Identify the most frequently ordered products based on the number of orders and total quantity sold.**

**Insight:**

**Identifying the most frequently ordered products helps prioritize inventory stocking, marketing focus, and promotions on high-demand items.**

# QUERY 5

```
53 • SELECT f.feedback_category, COUNT(f.feedback_ID) AS feedback_count  
54   FROM blinkit_customer_feedback f  
55   GROUP BY f.feedback_category  
56   ORDER BY feedback_count DESC  
57   LIMIT 10;
```

Result Grid | Filter Rows: \_\_\_\_\_ | Export: \_\_\_\_\_ | Wrap Cell Content: \_\_\_\_\_

feedback_category	feedback_count
Delivery	1271
Customer Service	1266
Product Quality	1250
App Experience	1213

result 3 ×  
output :::::::  
Action Output

#	Time	Action	Message
8	22:33:20	SELECT f.feedback_category, COUNT(f.feedback_ID) AS feedback_count FROM blinkit_cus...	4 row(s) returned
9	22:33:36	SELECT f.feedback_category, COUNT(f.feedback_ID) AS feedback_count FROM blinkit_cus...	4 row(s) returned

**Purpose:**

Analyze the most common reasons for customer dissatisfaction based on feedback.

**Insight:**

Identifies key areas of customer dissatisfaction, such as product issues or service quality, which can help in improving customer service and product quality.

# Scope for Extension

## 1. Real-Time Data Analytics and Monitoring:

- Real-Time Dashboards: Develop real-time dashboards for tracking live order status, delivery times, customer interactions, and inventory levels.
- Predictive Analytics: Implement predictive models to forecast sales trends, demand fluctuations, and delivery delays, helping with proactive decision-making.

## 2. Advanced Customer Segmentation and Personalization:

- AI-Powered Segmentation: Use machine learning algorithms to segment customers based on purchasing behavior, demographics, and preferences, allowing for more precise targeting.
- Personalized Recommendations: Integrate product recommendation engines to suggest products to customers based on their purchase history and browsing behavior.

## 3. Integration with External Data Sources:

- Social Media Analysis: Integrate social media data to assess customer sentiment about products, stores, and delivery experiences. This would help correlate online sentiment with actual sales and delivery performance.
- Supply Chain Data: Integrate external supplier data to analyze the impact of stockouts or delays from suppliers on overall performance.



**Thank  
You!**