Transformation Query

```
CREATE VIEW transformed sales view AS
SELECT
  order id,
  item_name,
  item type,
  item_price,
  quantity,
  transaction_amount,
  -- Standardize date and extract day and month names
  TO CHAR(TO DATE(date, 'MM-DD-YY'), 'YYYY-MM-DD') AS standardized date,
  UPPER(SUBSTRING(TO_CHAR(TO_DATE(date, 'MM-DD-YY'), 'Day'), 1, 3)) AS day_name,
      UPPER(SUBSTRING(TO_CHAR(TO_DATE(date, 'MM-DD-YY'), 'Month'), 1, 3)) AS
month name,
  -- Transform gender
  CASE
    WHEN received by = 'Mr.' THEN 'Male'
    WHEN received_by = 'Mrs.' THEN 'Female'
  END AS gender,
  -- Fill missing transaction types
  COALESCE(transaction type, 'Not Available') AS transaction type filled,
  -- Transform time of sale
  CASE time_of_sale
    WHEN 'Morning' THEN '08:00'
    WHEN 'Afternoon' THEN '13:00'
    WHEN 'Evening' THEN '18:00'
    WHEN 'Night'
                  THEN '21:00'
    WHEN 'Midnight' THEN '00:00'
    ELSE time of sale
  END AS time_of_sale_transformed
FROM sales;
```

arder_id bigint	ô	item_name character varying (5	item_type character varying (5D)	item_price numeric (10,2)	quantity bigint	transaction_amount numeric (10,2)	standardized_da text	day_name text	month_name text	gender text	transaction_type_filled character varying	time_of_sale_transformed character varying
		Aalopuri	Fastfood	20.00		260.00	2022-07-03	SUN	JUL	Male	Not Available	21:00
		Vadapav	Fastfood	20.00		300.00	2022-08-23	TUE	AUG	Male	Cash	13:00
		Vadapav	Fastfood	20.00		20.00	2022-11-20	SUN	NOV	Male	Cash	13:00
		Sugarca ne juice	Beverages	25.00		150.00	2023-02-03	FRI	FEB	Male	Online	21:00
		Sugarca ne juice	Beverages	25.00		200.00	2022-10-02	SUN	ост	Male	Online	18:00
		Vadapav	Fastfood	20.00		200.00	2022-11-14	MON	NOV	Male	Cash	18:00

KPI's Requirements Queries

1. Create table

```
CREATE TABLE sales (
    order_id int8 PRIMARY KEY,
    date VARCHAR(50),
    item_name VARCHAR(50),
    item_type VARCHAR(50),
    item_price DECIMAL(10,2),
    quantity int8,
    transaction_amount DECIMAL(10,2),
    transaction_type VARCHAR(50),
    received_by VARCHAR(50),
    time_of_sale VARCHAR(50)
)
```

2. Total Revenue

SELECT SUM (item_price * quantity) AS total_revenue FROM sales;



3. Total Product Sold

SELECT SUM (quantity) AS total_product_sold FROM sales;



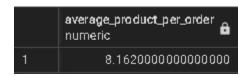
4. Total Orders

SELECT COUNT(order_id) AS total_orders FROM sales;



5. Average Product Per Order

SELECT SUM(quantity)/COUNT(order_id) AS average_product_per_order FROM sales;



6. Percentage of 'Not Available' transactions

SELECT COUNT(quantity)/1000.00 AS percentage_of_null_transactions FROM sales WHERE transaction type IS NULL;



7. Total amount of 'Not Available' transaction type

SELECT SUM(transaction_amount) AS total_amount_on_non_registered_transaction_type FROM sales WHERE transaction_type IS NULL;



1. Favorite Products By Gender

```
SELECT
CASE
      WHEN received_by = 'Mr.' THEN 'Male'
      WHEN received_by = 'Mrs.' THEN 'Female'
      ELSE received_by
 END AS gender_category,
      item_name,
  SUM(quantity) AS total_quantity
FROM
  sales
GROUP BY
  received_by,
 item_name
ORDER BY
  received_by,
 total_quantity DESC;
```

	gender_category character varying	Item_name character varying (50)	total_quantity numeric
1	Male	Panipuri	685
2	Male	Cold coffee	674
3	Male	Sandwich	636
4	Male	Sugarcane juice	616
5	Male	Aalopuri	583
6	Male	Vadapav	538
7	Male	Frankie.	536
8	Female	Cold coffee	687
9	Female	Sugarcane juice	662
10	Female	Frankie	614
11	Female	Panipuri	541
12	Female	Vadapav	468
13	Female	Aalopuri	461
14	Female	Sandwich	461

The following queries depend on the view defined above (transformed_sales_view).

11. Daily trend for total orders

SELECT day_name, COUNT(order_id)
FROM transformed_sales_view
GROUP BY day_name;



12. Monthly trend for total orders

SELECT month_name, COUNT(order_id)
FROM transformed_sales_view
GROUP BY month_name;

	month_name 6	count bigint a
1	DEC	90
2	JUN	68
3	MAY	100
4	JUL	79
5	ост	98
6	APR	66
7	FEB	83
8	SEP	73
9	JAN	90
1D	MAR	81
11	AUG	90
12	NOV	82

13. Hourly trend for total orders

SELECT time_of_sale_transformed, COUNT(order_id)
FROM transformed_sales_view
GROUP BY time_of_sale_transformed
ORDER BY time_of_sale_transformed;

	time_of_sale_transformed character varying	count bigint
1	DD:DD	199
2	D8:DD	190
3	13:00	205
4	18:00	201
5	21:00	205

14. Total of products sold by name

SELECT

item_name, sum(quantity) AS sum_of_quantity FROM transformed_sales_view GROUP BY item_name ORDER BY sum_of_quantity_DESC;

	item_name character varying (50)	sum_of_quantity numeric
1	Cald caffee	1361
2	Sugarca ne juice	1278
3	Panipuri	1226
4	Frankie	1150
5	Sandwich	1097
6	Aalopuri	1044
7	Vadapav	1006

15. Total of sales by product name

SELECT

item_name,
SUM(transaction_amount) AS total_of_sales_by_product_name
FROM transformed_sales_view
GROUP BY item_name
ORDER BY total_of_sales_by_product_name DESC;

	item_name character varying (50)	total_of_sales_by_product_name numeric
1	Sandwich	65820.00
2	Frankie	57 500.00
3	Cald caffee	54440.00
4	Sugarcanejuice	31950.00
5	Panipuri	24 520.00
6	Aalopuri	20880.00
7	Vadapav	20120.00