SQL Data Cleaning and Exploration Process

SQL Data Cleaning and Processing

```
USE pizza_db;

SELECT * FROM pizza_sales;

-- 1. Total Revenue:
SELECT SUM(total_price) AS Total_Revenue FROM pizza_sales;

-- 2. Average Order Value:
SELECT (SUM(total_price) / COUNT(DISTINCT order_id)) AS Avg_order_Value FROM pizza_sales;

-- 3. Total Pizzas Sold:
SELECT SUM(quantity) AS Total_pizza_sold FROM pizza_sales;

-- 4. Total Orders:
SELECT COUNT(DISTINCT order_id) AS Total_Orders FROM pizza_sales;

-- 5. Average Pizzas Per Order:
SELECT CAST(SUM(quantity) / COUNT(DISTINCT order_id) AS DECIMAL(10,2)) AS Avg_Pizzas_per_order
FROM pizza_sales;

-- A. Daily Trend for Total Orders:
SELECT DAYNAME(STR_TO_DATE(order_date, '%Y-%m-%d')) AS order_day,
       COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
GROUP    BY    WEEKDAY(STR_TO_DATE(order_date,    '%Y-%m-%d')),    DAYNAME(STR_TO_DATE(order_date,
'%Y-%m-%d'))
ORDER BY WEEKDAY(STR_TO_DATE(order_date, '%Y-%m-%d'));



-- B. Hourly Trend for Orders:
SELECT HOUR(order_time) AS order_hours, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
GROUP BY HOUR(order_time)
ORDER BY HOUR(order_time);

-- C. % of Sales by Pizza Category:
SELECT pizza_category, CAST(SUM(total_price) AS DECIMAL(10,2)) AS total_revenue,
```

```
CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) FROM pizza_sales) AS DECIMAL(10,2)) AS PCT
FROM pizza_sales
GROUP BY pizza_category;

-- D. % of Sales by Pizza Size:
SELECT pizza_size, CAST(SUM(total_price) AS DECIMAL(10,2)) AS total_revenue,
CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) FROM pizza_sales) AS DECIMAL(10,2)) AS PCT
FROM pizza_sales
GROUP BY pizza_size
ORDER BY pizza_size;

-- E. Total Pizzas Sold by Pizza Category (for February):
SELECT pizza_category, SUM(quantity) AS Total_Quantity_Sold
FROM pizza_sales
WHERE MONTH(STR_TO_DATE(order_date, '%Y-%m-%d')) = 2
GROUP BY pizza_category
ORDER BY Total_Quantity_Sold DESC;



-- F. Top 5 Best Sellers by Total Pizzas Sold:
SELECT pizza_name, SUM(quantity) AS Total_Pizza_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizza_Sold DESC
LIMIT 5;

-- G. Bottom 5 Best Sellers by Total Pizzas Sold:
SELECT pizza_name, SUM(quantity) AS Total_Pizza_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizza_Sold ASC
LIMIT 5;

-- Filtering by Month, Quarter, and Week:

-- Filter by Month (e.g., January):
SELECT DAYNAME(STR_TO_DATE(order_date, '%Y-%m-%d')) AS order_day,
       COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
WHERE MONTH(STR_TO_DATE(order_date, '%Y-%m-%d')) = 1
GROUP BY DAYNAME(STR_TO_DATE(order_date, '%Y-%m-%d'));
```

SQL Data Cleaning and Exploration Process

```
-- Filter by Quarter (e.g., Quarter 1):
SELECT DAYNAME(STR_TO_DATE(order_date, '%Y-%m-%d')) AS order_day,
       COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
WHERE QUARTER(STR_TO_DATE(order_date, '%Y-%m-%d')) = 1
GROUP BY DAYNAME(STR_TO_DATE(order_date, '%Y-%m-%d'));
```