Product Analysis & Improvising Strategy

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Product Introduction

"**Food Ordering Platform** : Transforming the Way We Dine"

- These platforms have seamlessly integrated technology with culinary experiences, reshaping the restaurant industry and consumer behaviour.

- Their convenience, variety, and efficiency have propelled them into the mainstream, creating a win-win situation for consumers and restaurants alike.

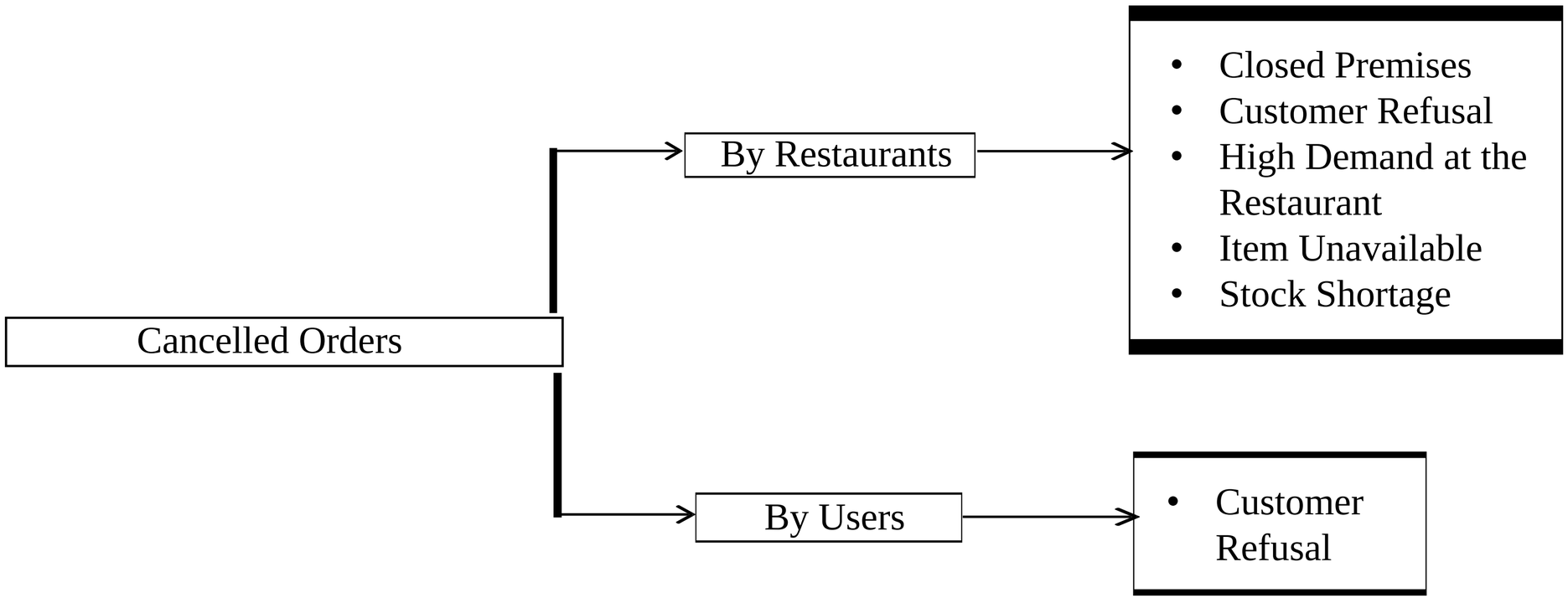
Goals

1. How can we minimize the order cancellation while ensuring the user satisfaction.

2. Suggesting actionable insights, areas of improvement and areas of opportunity.

GOAL SETTING

Problem Identification



Restaurants are encountering 1% cancellation of total orders processed which is a significant loss of money and resources for the restaurant and the platform!

Items Category

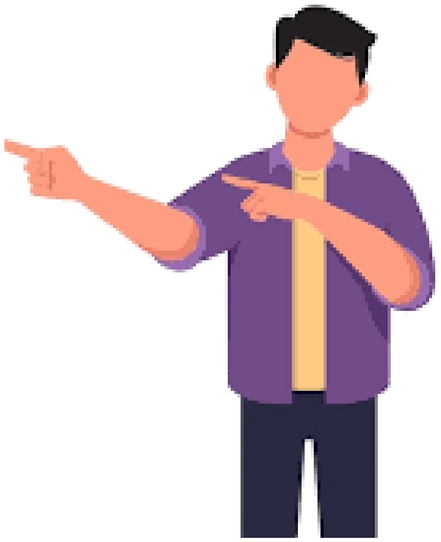
- Packaged
- Buffet
- Non-MRP

Solution Mapping

Method used to reach the Solution

We are using the "**CIRCLES Method**" to make a thorough and thoughtful response.

- **C**omprehending the situation (Identifying the goal)
- Identifying the target user
- Cut through prioritization
- Listing Solutions
- Evaluating Tradeoff
- Summarizing

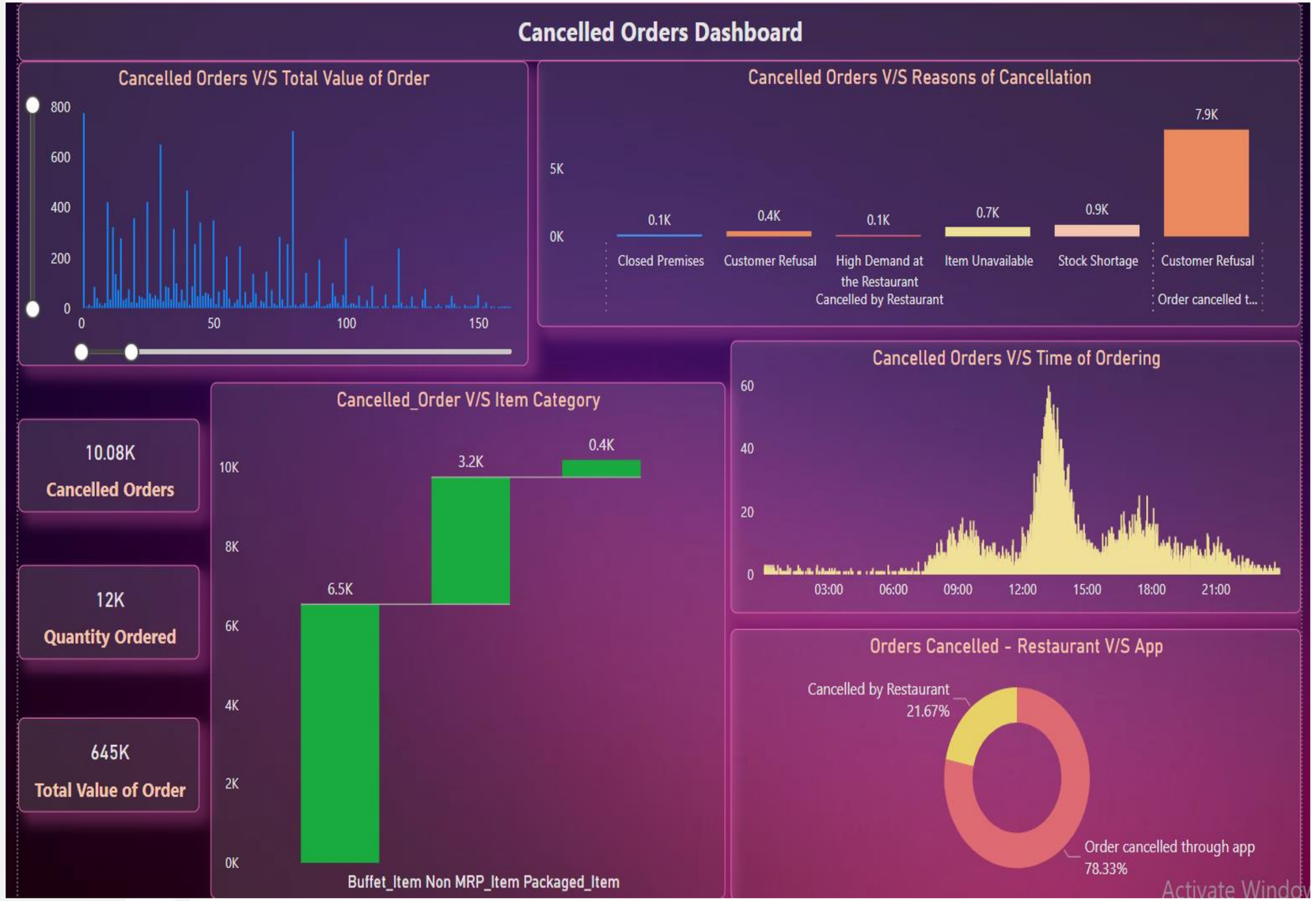


Tools Used for Analysis

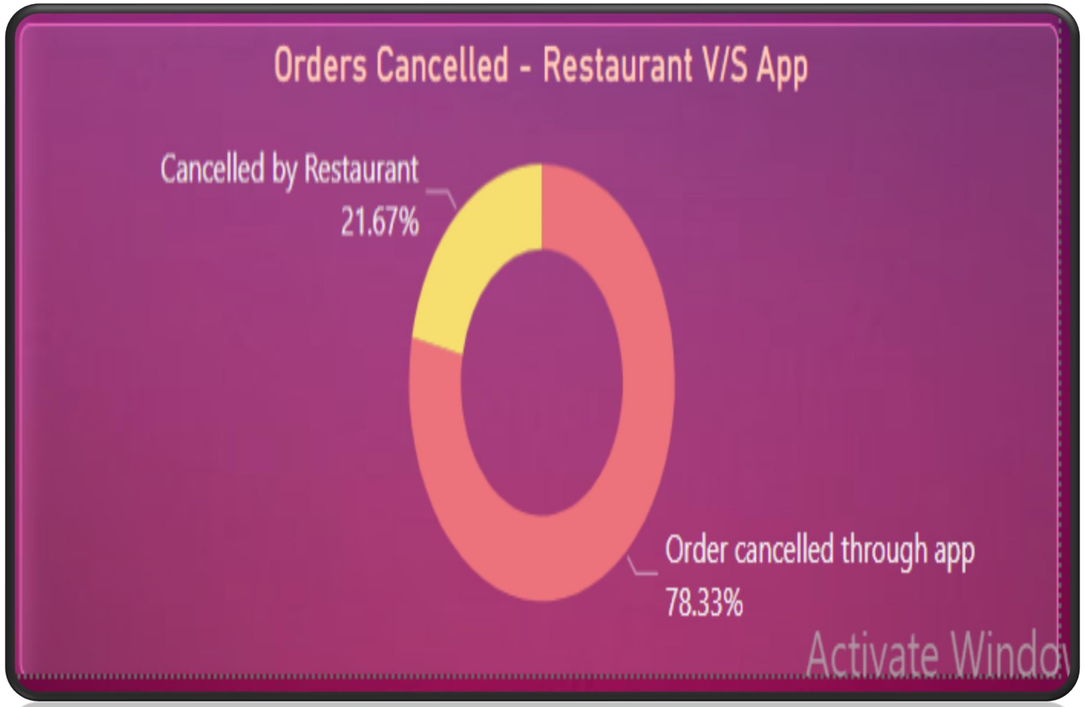
- **MySQL** : Used here to join the tables and draw meaningful insights by grouping the results based on various parameters.
- **Microsoft Power BI** : Used extensively here to visualize the data and to create interactive and dynamic dashboard containing visual inputs (Graphs) between various parameters.
- **Microsoft Excel** : Used mainly for the data cleaning and processing.

Dashboard

- Made “Fully Interactive Dashboard” by using “Power BI”.
- Various types of plots used to effectively visualize the data.
- Use of cards to showcase more important information at first glance.
- Link: https://github.com/Djain1105/Product_Analysis/blob/main/HungerBox_Project.pbix



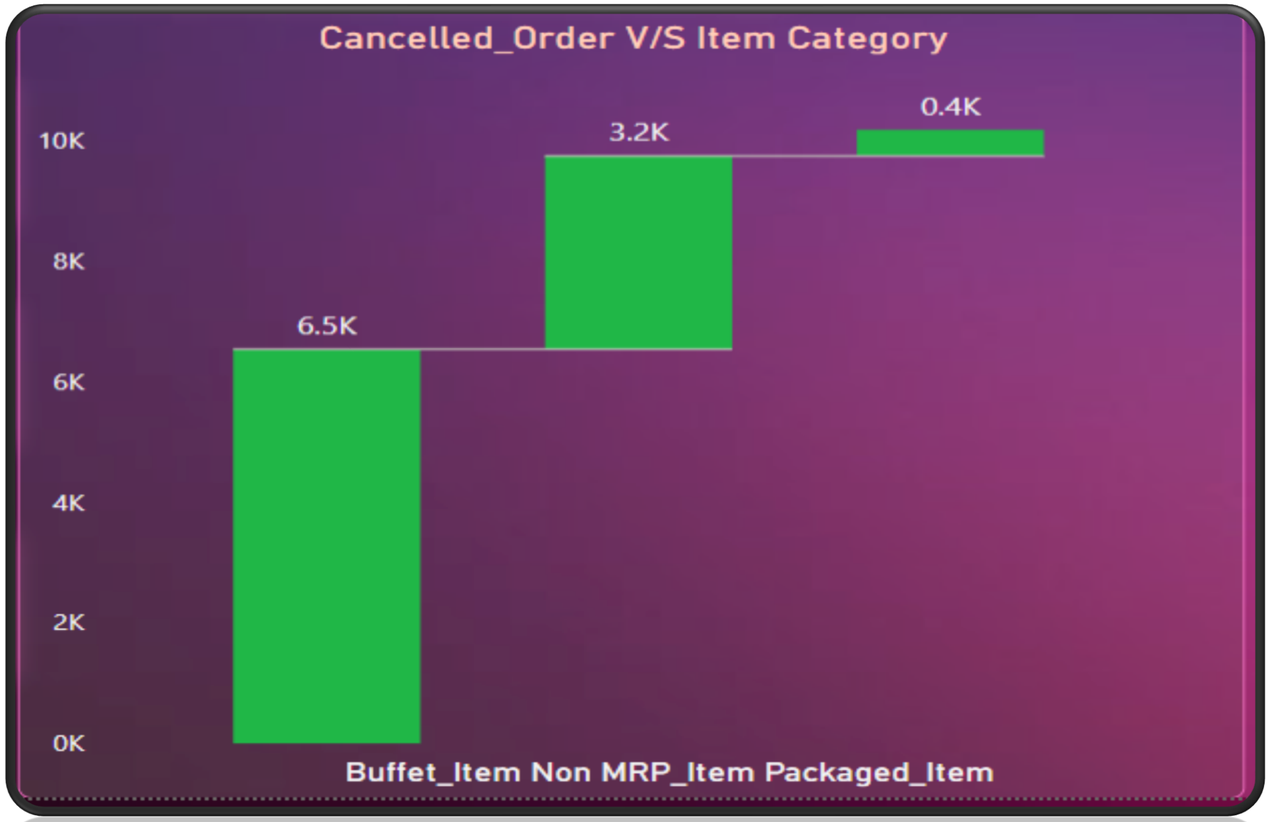
Insight 1



Takeaway Points

- Orders are cancelled more at the user end as compared to that by restaurant.
- Main Reason for cancellation at user end is “Customer Refusal”
- Main Reasons for cancellation at restaurant end are “Stock Shortage” and “Item Unavailable”

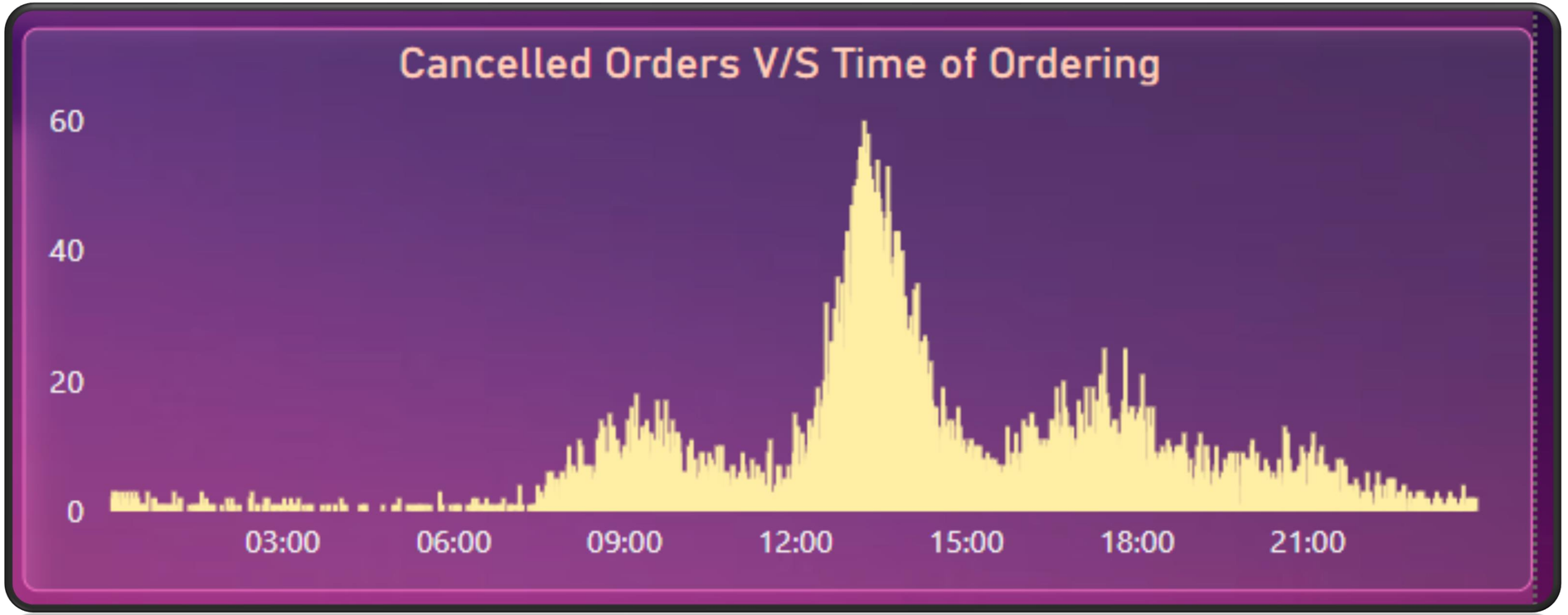
Insight 2



Takeaway Points

- “Buffet Items” are cancelled the most in all categories available
- “Packaged Items” are least cancelled in all categories available

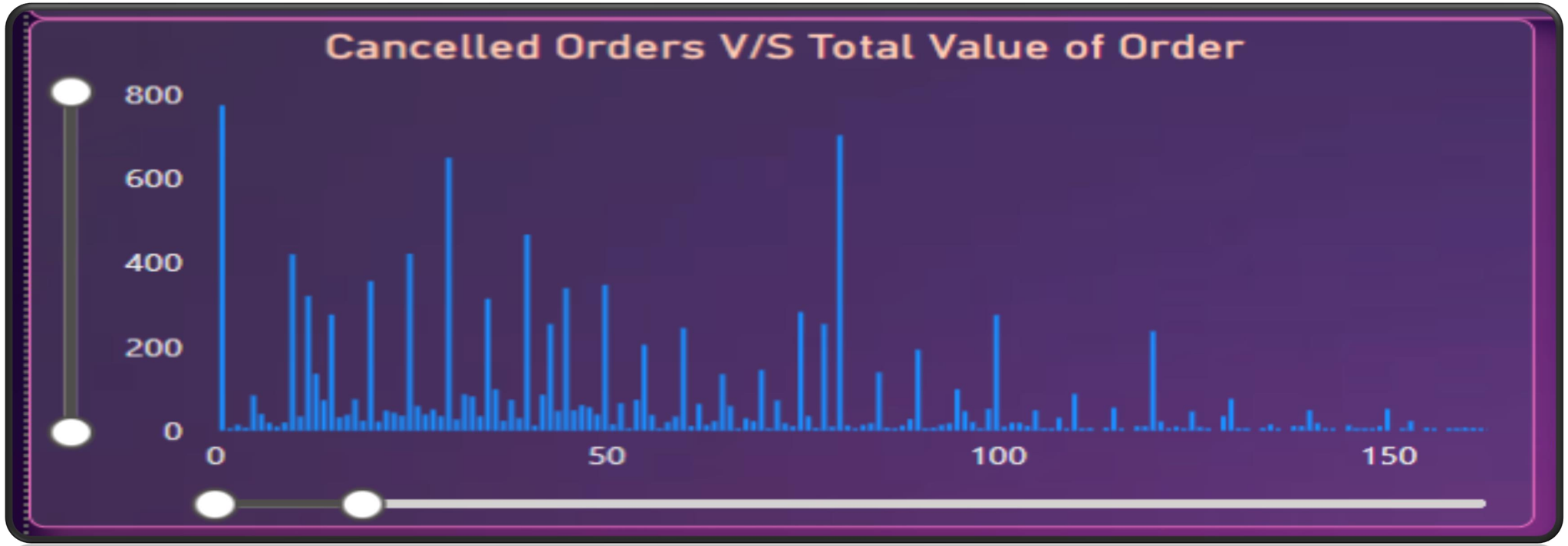
Insight 3



Takeaway Points

- “Maximum cancellation of orders” occurs between 12:00 PM to 3:00PM
- There is also a good number of orders cancelled between 4:00 PM to 7:00 PM
- “Least Orders are cancelled” in between 12:00 AM to 6:00 AM

Insight 4



Takeaway Points

- Orders with total value between 10 to 100 are the most to be cancelled with the peak occurring between 70 to 90.
- Some orders are also placed with 0 Value (Thus gets cancelled).

Insight 5 (Using MySQL)

```sql
SELECT Restaurant_ID, COUNT(*) as cancelled_orders
FROM joined_table
GROUP BY Restaurant_ID
ORDER BY cancelled_orders DESC;
```

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

Restaurant_ID	cancelled_orders
1002	2085
1302	1633
1129	869
1200	776
1282	544
1135	513
1084	510
1145	487
1117	462
1284	372
1074	256
1395	224
1346	215
1094	201
1091	197
1104	174

Takeaway Points

- Restaurants with the ID's "1002" & "1302" are having the maximum cancelled orders.

```sql
SELECT Product_ID, Product_Name, COUNT(*) as cancelled_orders
FROM joined_table
GROUP BY Product_ID, Product_Name
ORDER BY cancelled_orders DESC;
```

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

Product_ID	Product_Name	cancelled_orders
501401	Veg Lunch	69
732375	Breakfast	52
481258	Non-Veg Lunch	49
556725	Breakfast	41
501499	Non Veg Lunch	41
732377	Lunch Combo 1	40
639420	North Lunch (Veg)	39
650362	Foodie Friday	39
501484	Veg Lunch	38
677221	Combo (Limited Meals)	38
867589	Avakaya Chicken Pul...	38
677227	Ginger Tea	36
501366	Breakfast	35
501406	Veg Lunch	35
715838	Ginger Masala Tea	34
723029	Flex Dinner Veg	32

Takeaway Points

- Products with ID's "501401", "732375" & "481258" are having maximum cancellation.

Actionable Insights & Improvising Strategies

- The Restaurants cancelling the orders because of “Stock Shortage” & “Item Unavailable” should be suggested to ‘Increase and manage their inventories’ effectively to serve as per the customer requirements.
- The Buffet Items and Non-MRP items should be reviewed on a regular basis to ensure that there is quality is well maintained and these products should also be customized according to the customer needs.
- The Restaurants should double check the orders coming between 12:00 PM to 3:00 PM to maintain the quality up to the mark and not diminishing the quality because of large number of orders.
- Restaurants should not compromise with the quality and service even if the total value of order is less. They should maintain their delivery standards to see positive outcomes.
- The Restaurants with ID’s “1002” & “1302” should be treated specifically to resolve their problems and thereby decreasing their count of cancelled orders.
- All Restaurants should work more to improve the standards of the Products with ID’s “501401”, “732375” & “481258” according to the consumer’s taste and requirements.
- For analysing the root cause of cancellation of orders at user end, more user-oriented data will be required like their age group, profession, gender, etc.

Summary

We analysed the data for a “Food Delivery Platform” using various tools like ‘Power BI’, ‘SQL’ & ‘Excel’.

We generated a dashboard (using Power BI) that enabled us to compare the count of cancelled orders against various parameters like reason of cancellation, total value of order, time of order, etc.
Also, we used SQL to gain insights for the restaurants and products with maximum order cancellation.

Finally, using these insights we generated a report which will help the platform to find and eliminate the causes of such cancellation.

Project Link:
https://github.com/Djain1105/Product_Analysis