



HungerBox

Made in India



SARTHAK KAPOOR

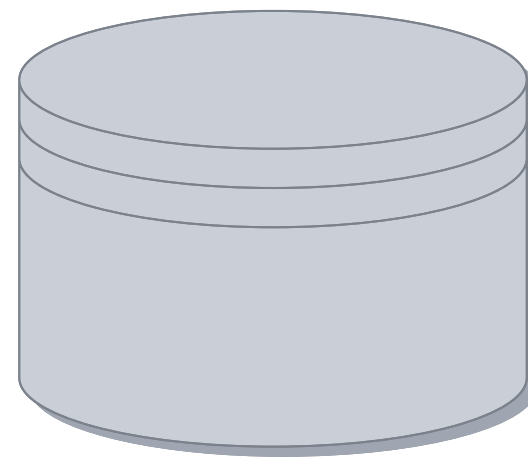
[LINKEDIN](#)

PROBLEM STATEMENT

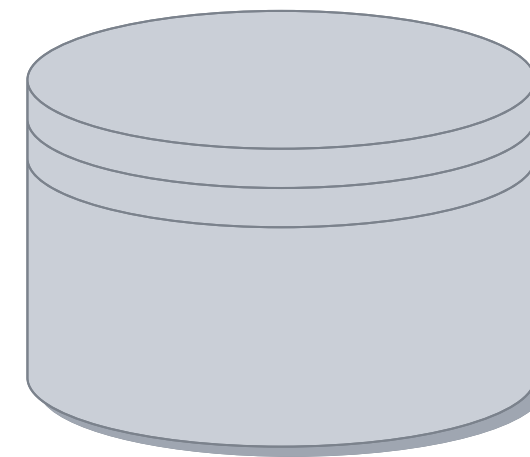


For this case study, I was provided with 2 data sets for a leading **food ordering platform**. With the help of the data, I was asked to find some **actionable insights**, **areas of improvement**, and **areas of opportunity** for these restaurants. Also, provide the method of analysis and steps applied to the data to get the insights and mention the insights gathered to draw a conclusion to **reduce cancellation rates**

Data sets----->



PRODUCT_DETAILS



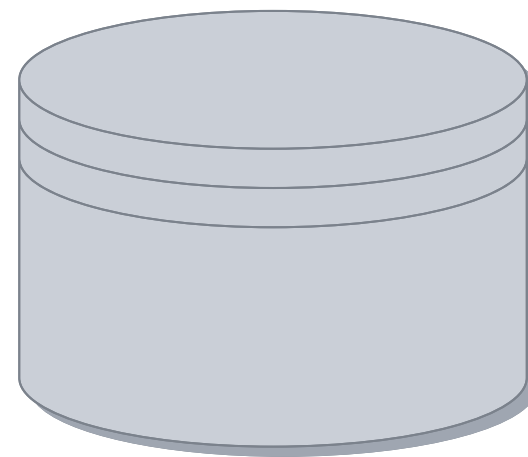
CANCELLED_ORDERS

QUESTIONS

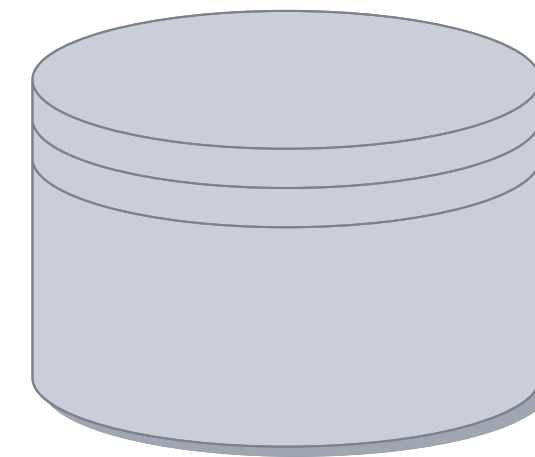


- I THOUGHT ABOUT HOW TO USE SPECIFIC PARAMETERS TO DRAW A CONCLUSION ?
- DEPENDENCE OF VARIOUS FACTORS ON THE CANCELLATION RATE.

Data sets----->



PRODUCT_DETAILS



CANCELLED_ORDERS

SETTING UP DATABASE



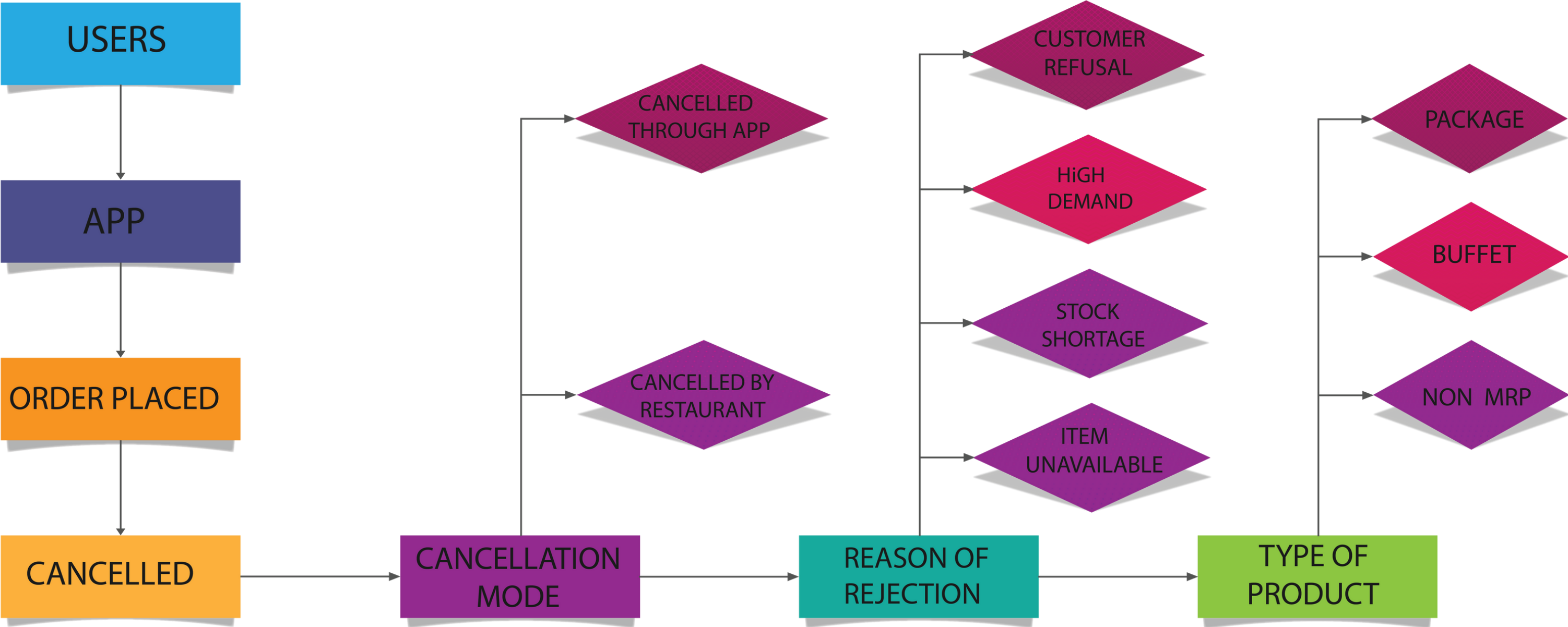
- Excel workbook exported to 2 .csv files
- Imported .csv to MYSQL workbench

2 Data sets----->

Order Date	Order Time	Restaurant ID	Order ID	Quantities Ordered	Cancellation Mode	Reason of Rejection
2023-07-06	12:09:55 PM	1135	291028054	2	Cancelled by Restaurant	Customer Refusal
2023-07-06	12:20:54 PM	1117	291035864	1	Cancelled by Restaurant	Stock Shortage
2023-07-06	12:21:41 PM	1002	291036417	1	Order cancelled through app	Customer Refusal
2023-07-06	12:23:01 PM	1162	291037285	1	Order cancelled through app	Customer Refusal
2023-07-06	12:30:04 PM	1214	291042883	1	Order cancelled through app	Customer Refusal

Product ID	Product Name	Product Price	Quantity Ordered	Total Value	Is Packaged Item?	Is Buffet Item?
68759	Veg Soft Noodles	165	1	165	No	No
68829	Watermelon Juice	49	1	49	No	No
68838	Pomegranate Juice	99	2	198	No	No
68838	Pomegranate Juice	99	2	198	No	No
69028	Chicken Club Sandwich	185	1	185	No	No

CANCELLATION FLOW



APPROACH 1



- Initially, considering product types for analysis was considered. However, utilizing the 'DISTINCT' function revealed over 50 unique items, indicating potential vagueness in the analysis based solely on types. Thus, a more comprehensive approach was adopted.
- Order cancellations might often be linked to a common factor like ETA (Estimated Time of Arrival). Unfortunately, due to limited data access, this aspect couldn't be explored in this analysis and A/B testing could have been performed between two platforms.

APPROACH 2



INTUITION-

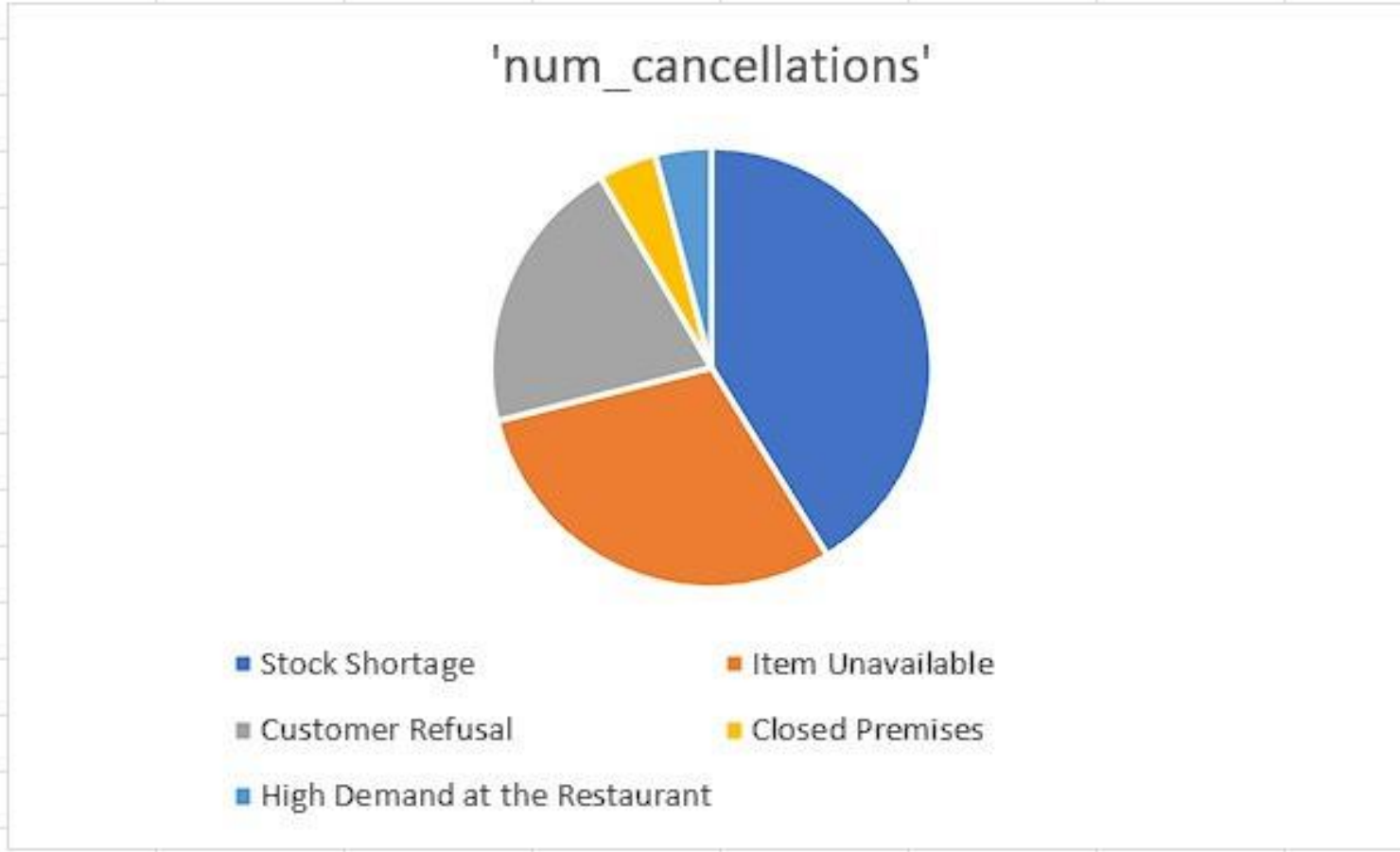
SO , FIRST WE WILL ANALYSE THE DIFFERENT CATEGORIES UNDER 1 COLUMN AND TRY TO PLOT THEIR TAKE ON THE CANCELLATION RATE SO THAT WE CAN CONCLUDE A BETTER DECISION

APPROACH 2



- First, we calculated the cancellation rate of all categories based on reason of calculation

Result Grid		
Filter Rows: <input type="text"/>		
Export: <input type="button" value="Export"/>		
Wrap Cell Content: <input type="button" value="Wrap"/>		
	Reason of Rejection	num_cancellations
▶	Stock Shortage	858
	Item Unavailable	697
	Customer Refusal	391
	Closed Premises	133
	High Demand at the Restaurant	105



APPROACH 2



- Then we calculated the cancellation rate by restaurant and customer

CANCELLATION RATE BY RESTAURANT

Result Grid Filter Rows: Export: Wrap Cell Content:			
	total_orders	total_cancellations	cancellation_rate
▶	10077	2184	21.67

CANCELLATION RATE BY CUSTOMER

Result Grid Filter Rows: Export: Wrap Cell Content:			
	total_orders	total_cancellations	cancellation_rate
▶	10077	7893	78.33

APPROACH 2



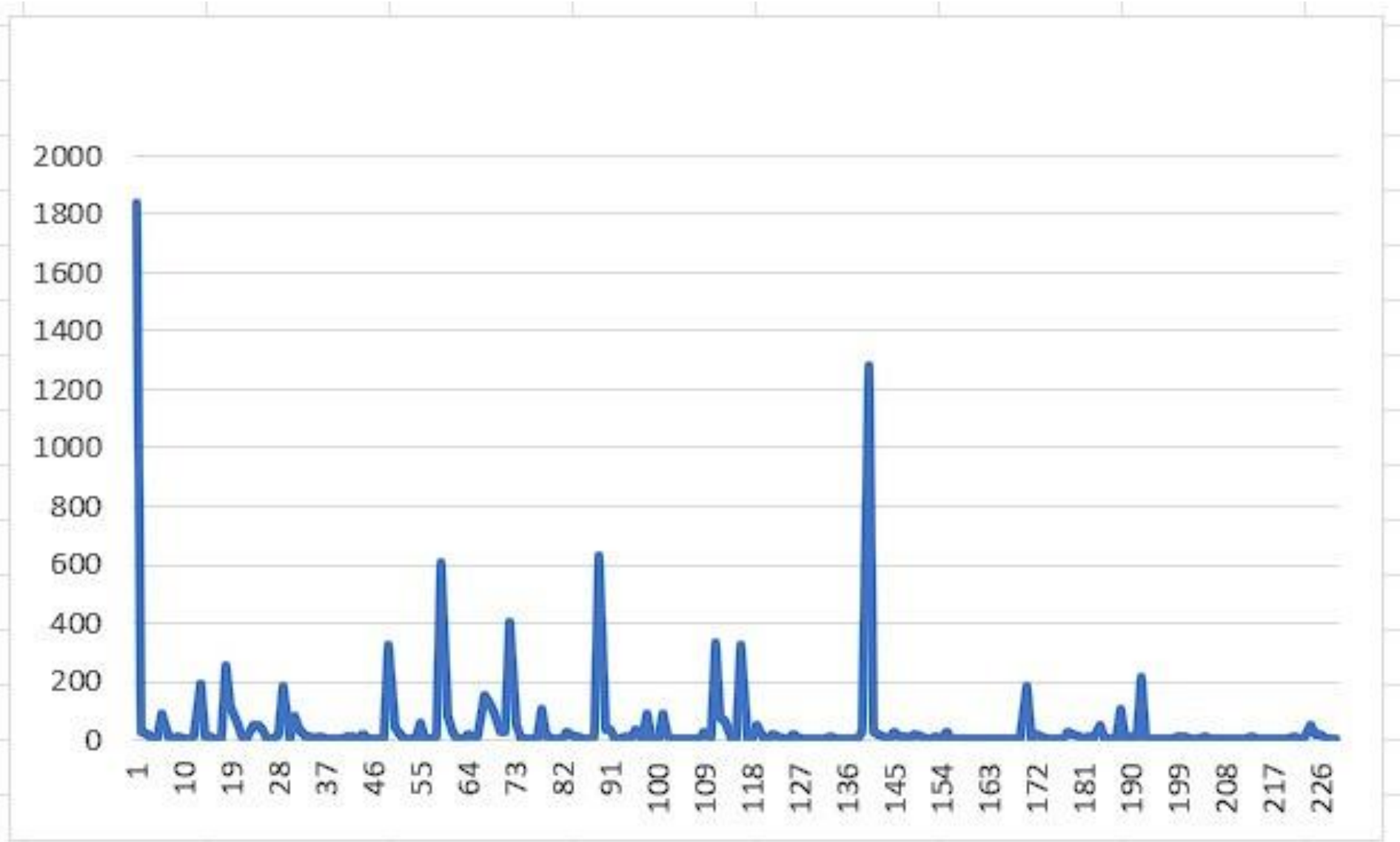
- THE BELOW DATA SHOWS THE CANCELLATION BY RESTAURANT FOR DIFFERENT TYPE OF FOOD.

Result Grid Filter Rows: <input type="text"/> Export: Wrap Cell Content:					
	IsPackaged	IsBuffet	total_orders	total_cancellations	cancellation_rate
▶	No	No	3208	1973	61.50
	Yes	Yes	435	64	14.71
	No	Yes	6531	521	7.98

APPROACH 2



- THEN I CALCULATED THE MAXIMUM ORDER CANCELLATION RATE IN REFERENCE TO RFID.



AREAS OF IMPROVEMENT



- FIRST OF ALL RESTAURANTS SHOULD BE GIVEN WARNING BASED ON STOCK SHORTAGE/ MAKE THE DISH UNAVAILABLE BASED ON NUMBER OF CANCELLATIONS BY THAT RESTAURANT ID.
- NOW, WHY IS THE CUSTOMER CANCELLING THE ORDER CAN BE SEEN BY HAVING AN ADDITIONAL DATA OF REVIEW AND FEEDBACK TO REDUCE THE CANCELLATION ORDER THERE , BECAUSE THAT CONSTITUTES ABOUT 78%OF DATA.

AREAS OF OPPORTUNITY



- ETA IS A BIG OPPORTUNITY TO MAKE THE RETENTION RATE OF CUSTOMER HIGH BY REDUCING CANCELLATION RATE OF ORDERS.
- BASED ON THE TOP SELLING ITEMS , RESTAURANTS CAN BE GIVING A PREDICTING ORDER FORECAST TO STOCK ACCORDING TO THE DATA . THIS WILL SIGNIFICATLY LOWER THE CANCELLATION RATE . COULD BE ACHIEVED BY INTEGRATING ML-MODELS ON THE DATABASE.
- NOTHING BEATS THE GOOD OLD FEEDBACK/RATING SYSTEM TO ANALYZE THE DATA MORE EFFICIENTLY.
 - ALL THESE CAN BE ACHIEVED BY BY ENSURING USER SATISFACTION.

MODIFICATIONS IN EXISTING CANCELLATION FLOW



- CANCELLATION FEES CAN BE APPLIED TO HIGH CANCELLATION RID'S BY THE RESTAURANT END.
 - CUSTOMERS CAN BE GIVEN A TIME BOUND CANCELLATION CYCLE.
- CUSTOMERS CAN ALSO BE GIVEN THE CYCLE OF THEIR ORDER i.e FROM ORDER->PREPARING->DISPATCHED->OUT FOR DELIVERY . THIS WILL BE PSHYCHOLOGICAL WAY TO CLEAR UNCERTAINTY OF ORDER.

THANK YOU!