# Tech Saksham

## Case Study Report

# DATA ANALYTICS WITH POWER BI

# “360-degree Business Analysis of Online Delivery Apps”

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# ABSTRACT

In this digital landscape, businesses operating in the online delivery sector require robust analytical tools to gain insights into their operations, customer behavior, and market dynamics.This paper presents a 360-degree analysis of online delivery apps using Power BI, aiming to provide actionable insights for stakeholders in the rapidly evolving digital delivery market.This study conducts a comprehensive analysis of online delivery apps utilizing Power BI, a powerful business intelligence tool. By examining various facets including customer behavior, market trends, operational efficiency, and financial performance, this analysis provides a holistic view of the online delivery app landscape.This project examines market penetration,user demographics, popular delivery categories, and emerging market trends. Furthermore, it delves into the operational models, revenue streams, and profitability metrics of leading delivery platforms. This project offers strategic recommendations for stakeholders, including app developers, businesses, investors, policymakers, and consumers.These insights can inform decision-making processes, foster innovation, and drive sustainable growth in the online delivery app sector.

# INDEX

# CHAPTER 1

# INTRODUCTION

## 1.1 Problem Statement

Online delivery apps have become ubiquitous in today's fast-paced world, offering convenience and efficiency in delivering various products and services to consumers' doorsteps. However, the landscape of online delivery apps is constantly evolving, presenting both opportunities and challenges for businesses operating within this space. Ultimately, the goal of this project is to equip businesses with the means to unlock the full potential of their data, driving efficiency, innovation, and growth in the increasingly competitive landscape of online delivery services.The key objective is to provide businesses with actionable insights into various facets of their operations, including but not limited to customer behavior, order fulfillment, delivery efficiency, revenue generation, and market trends.

## 1.2 Proposed Solution

To conduct a 360-degree business analysis of online delivery apps, we'll need to consider various aspects including market analysis, competitive landscape, technological infrastructure, business model, marketing strategy, operational efficiency, customer experience, and regulatory considerations. The dashboard will integrate data from various sources such as customer behavior including preferences, purchasing habits, and feedback analysis.. It will provide a comprehensive view of customer behavior, preferences, and trends, enabling businesses to make informed decisions. The dashboard will be interactive, user-friendly, and customizable, allowing businesses to tailor it to their specific needs. business analysis of online delivery apps, we need to consider various aspects

such as market analysis, business model, technology stack, user experience, competition, and risks.

## 1.3Feature

- **Real-Time Analysis**: Assess the capability of online delivery apps to gather and process real-time data on orders, deliveries, customer feedback, and market trends.
- **Understanding the Market Landscape** : Analyze factors such as market size, growth potential, regulatory landscape, and competitive positioning to inform strategic decision-making.
- **Trend Analysis**: Utilize historical data and predictive analytics to identify patterns and trends in consumer behavior, market dynamics, and industry innovations
- **Predictive Analysis**: Assess the accuracy and reliability of predictive models in minimizing risks, maximizing efficiency, and enhancing the overall customer experience.

## 1.4 Advantages

- **Data-Driven Decisions**: Utilizes data analytics to make informed decisions, ranging from pricing strategies to marketing campaigns.
- **Enhanced Customer Experience**: Identifies areas for enhancing user experiences, leading to higher retention rates and increased loyality.
- **Comprehensive Understanding**: It provides a holistic view of the business, encompassing all aspects from user experience to backend operations.

## 1.5 Scope

The scope of this project to understanding the current market trends, competitor landscape and potential growth opportunities. The project analyzes the efficiency of delivery operations, including route optimization, delivery times, and customer feedback on delivery experiences. The project also analyzes revenue streams, cost structures, profitability, and overall financial health of the business. Furthermore, the project conducts a comprehensive analysis across these dimensions, stakeholders can gain

valuable insights into the strengths, weaknesses, opportunities, and threats facing online delivery apps, enabling them to make informed decisions and drive business growth.

# CHAPTER 2

# SERVICES AND TOOLS REQUIRED

## 2.1 Services Used

- **Data Collection and Storage Services**: Companies need to collect and store customer data in real time. This could be achieved through services like Azure Data Factory, Azure Event Hubs, or AWS Kinesis for real time data collection, and Azure SQL Database or AWS RDS for data storage.

- **Data Processing Services**: Services like Azure Stream Analytics or AWS Kinesis Data Analytics can be used to process the real time data.

- **Machine Learning Services**: Azure Machine Learning or AWS SageMaker can be used to build predictive models based on historical data.

## 2.2 Tools and Software used

**Tools**:

- **PowerBI**: The main tool for this project is PowerBI, which will be used to create interactive dashboards for 360-degree business analysis of online delivery apps data visualization.

- **Power Query**: This is a data connection technology that enables you to discover, connect, combine, and refine data across a wide variety of sources.

**Software Requirements**:

- **PowerBI Desktop**: This is a Windows application that you can use to create reports and publish them to PowerBI.

- **PowerBI Service**: This is an online SaaS (Software as a Service) service that you use to publish reports, create new dashboards, and share insights.

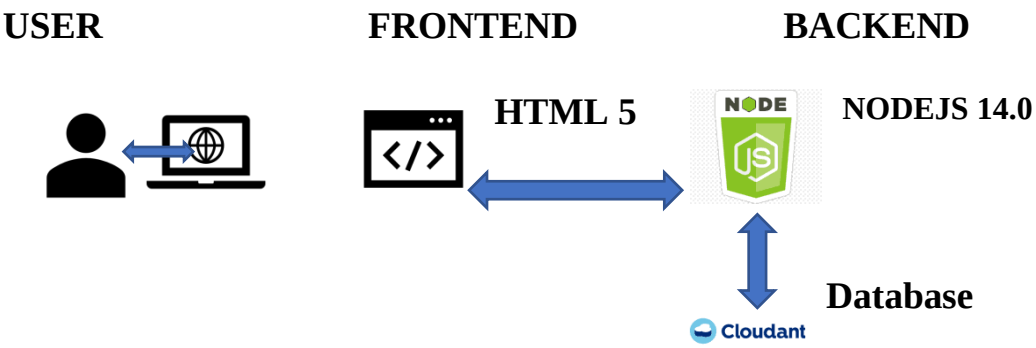
- **PowerBI Mobile**: This is a mobile application that you can use to access your reports and dashboards on the go.

# CHAPTER 3

# PROJECT ARCHITECTURE

## 3.1 Architecture




Here's a high-level architecture for the project:

1. **Data Collection**: The data of online delivery apps is collected from companies , customers feedback, etc. This could be achieved using services like Azure Event Hubs or AWS Kinesis.
2. **Data Storage**: The collected data is stored in a database for processing. Azure SQL Database or AWS RDS can be used for this purpose.
3. **Data Processing**: The stored data is processed in real-time using services like Azure Stream Analytics or AWS Kinesis Data Analytics.
4. **Machine Learning**: Predictive models are built based on processed data using Azure Machine Learning or AWS SageMaker. These models can help in predicting customer behavior, detecting fraud, etc.
5. **Data Visualization**: The processed data and the results from the predictive models are visualized in real-time using PowerBI. PowerBI allows you to create interactive dashboards that can provide valuable insights into the data.
6. **Data Access**: The dashboards created in PowerBI can be accessed through PowerBI Desktop, PowerBI Service (online), and PowerBI Mobile.

This architecture provides a comprehensive solution for 360-degree business analysis of online delivery apps. It is also important to ensure that all tools and services comply with relevant data privacy and security regulations.

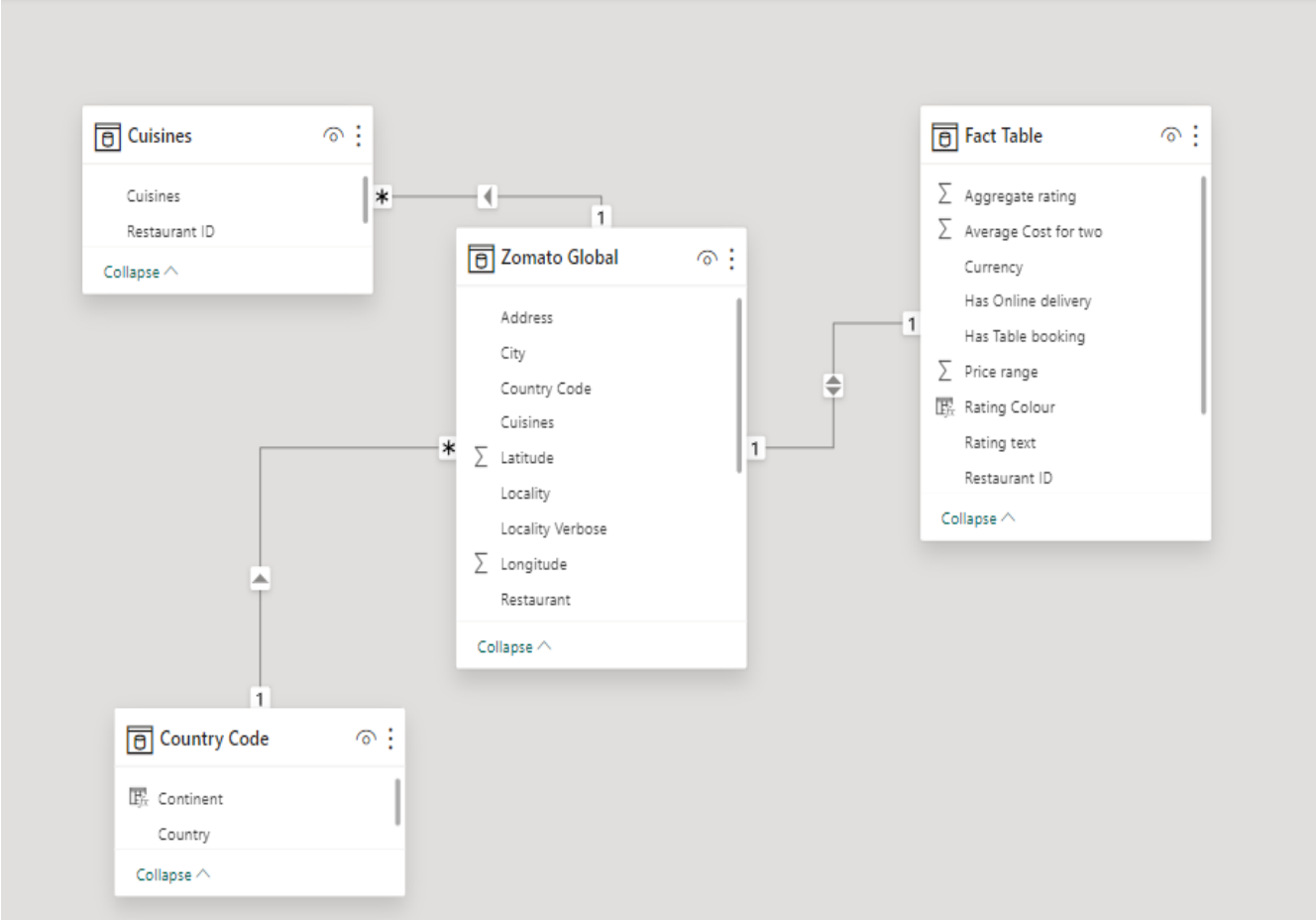
 

# CHAPTER 4

# MODELING AND RESULT

## Manage relationship

The “Zomato Global” file will be used as the main connector as it contains most key identifier (Country Code,Fact Table) which can be used to relate the 2 data files together. The “Fact Table” file is used to link the “Cuisines File” geographically with “Restaurant ID”



## Manage relationships

| Active | From: Table (Column) | To: Table (Column) |
|---|---|---|
| ☑ | Cuisines (Restaurant ID) | Zomato Global (Restaurant ID) |
| ☑ | Zomato Global (Country Code) | Country Code (Country Code) |
| ☑ | Zomato Global (Restaurant ID) | Fact Table (Restaurant ID) |

## Edit relationship

Select tables and columns that are related.

Cuisines

| Restaurant ID | Cuisines |
|---|---|
| 5702418 | North Indian |
| 5702615 | North Indian |
| 5703500 | North Indian |

Zomato Global

| Restaurant ID | Country Code | City | Restaurant | Address | Restaurant Name,Address.3 |
|---|---|---|---|---|---|
| 306531 | 1 | New Delhi | PM 2 AM Food Bank | 1st Floor | Alaknanda Market |
| 3326 | 1 | New Delhi | The Mirch Masala | DDA Murga Market | Near Deep Cinema |
| 18375413 | 1 | New Delhi | Rama Desi Ghee Meat Wala | IA | Block 10 C |

Cardinality: Many to one (*:1)

Cross filter direction: Single

☑ Make this relationship active

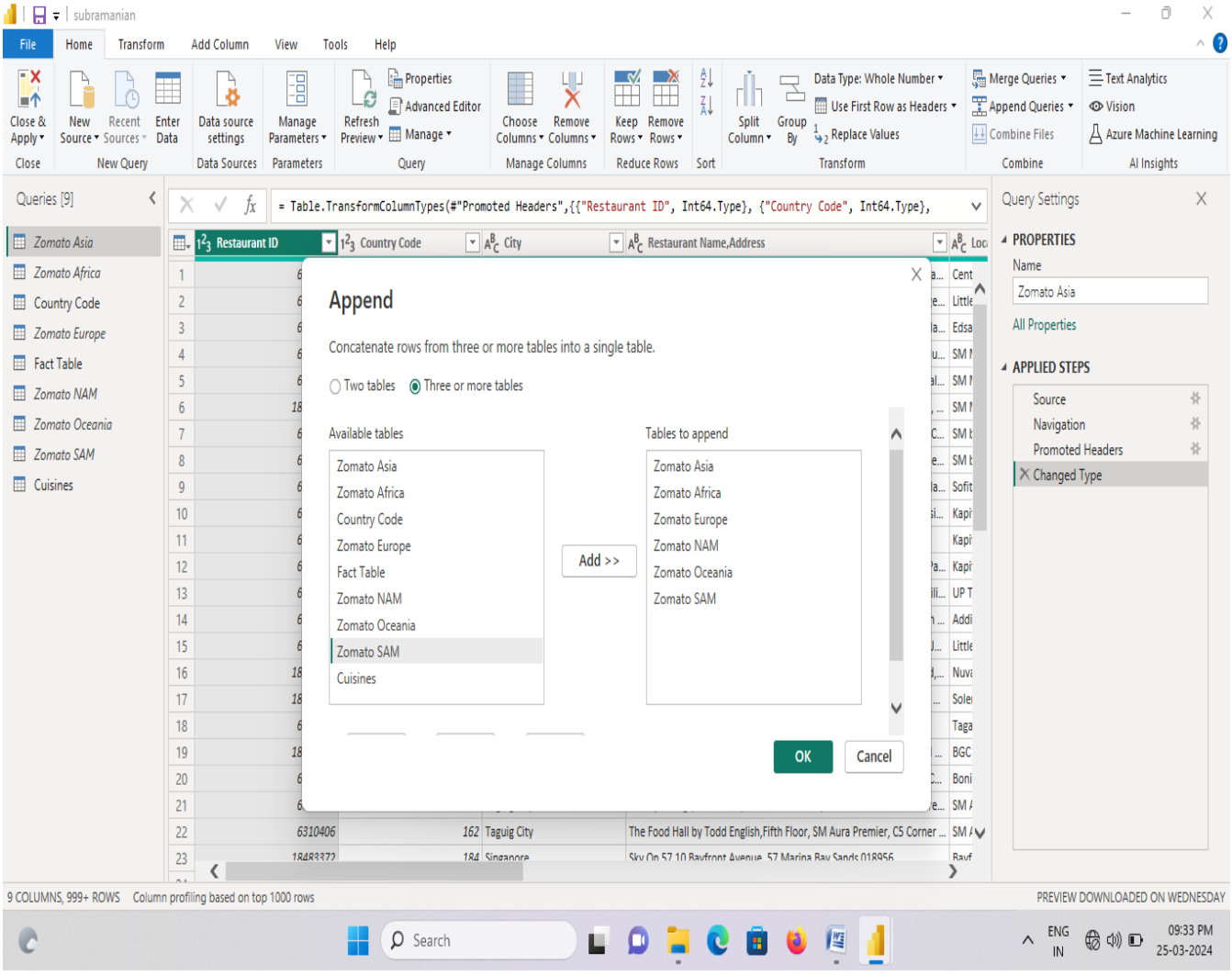
☐ Assume referential integrity

☐ Apply security filter in both directions

## Making of the New Query “Zomato Global”

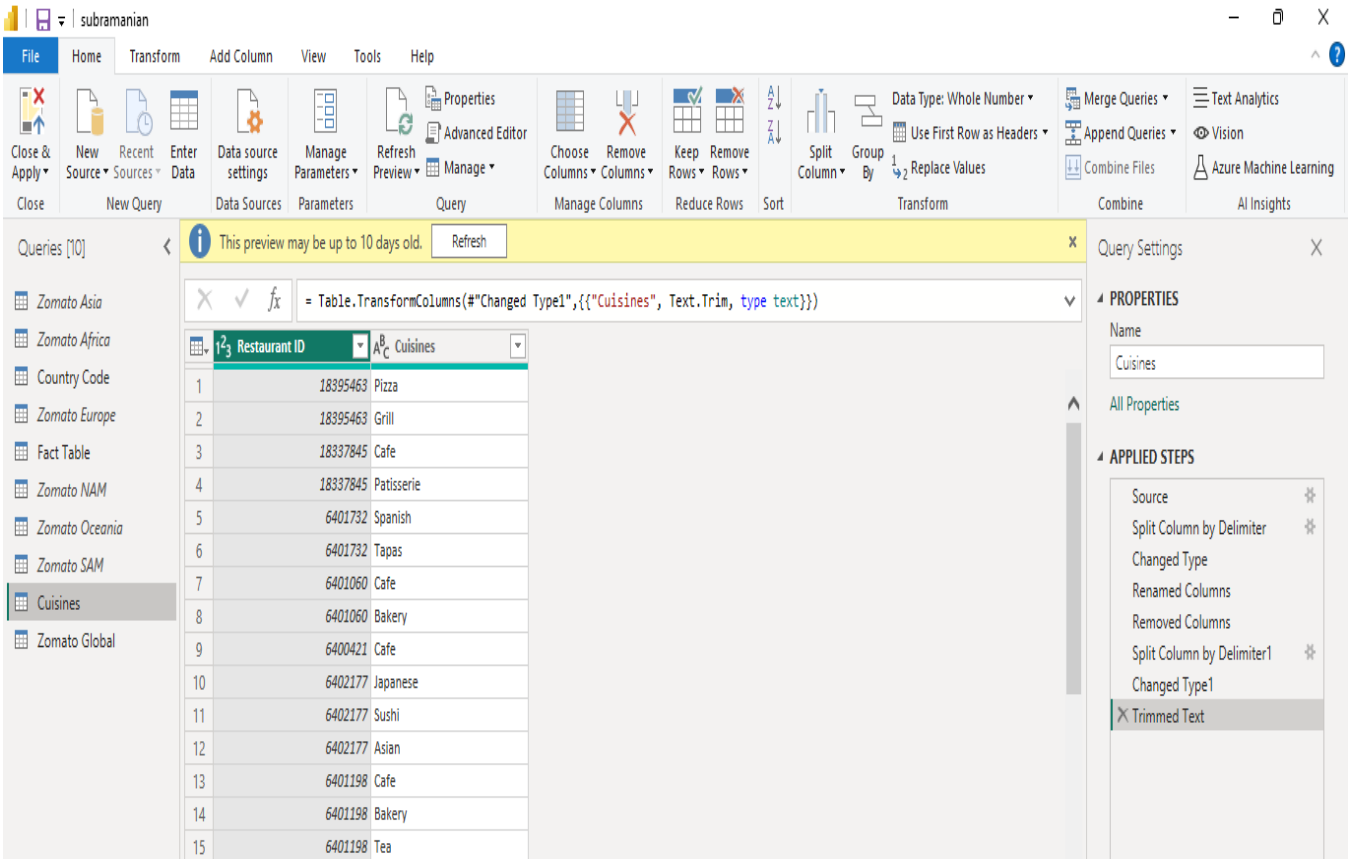
Notice that all the dates of the different continent are given in separate query. These can be merged into a single query by “append queries as new” option.



## Switch Functions For Continent

From the query “Zomato Global “ we take a duplicate of it to create another query called as “Cuisines” which contains only Restaurant ID and Cuisines of different Continents.

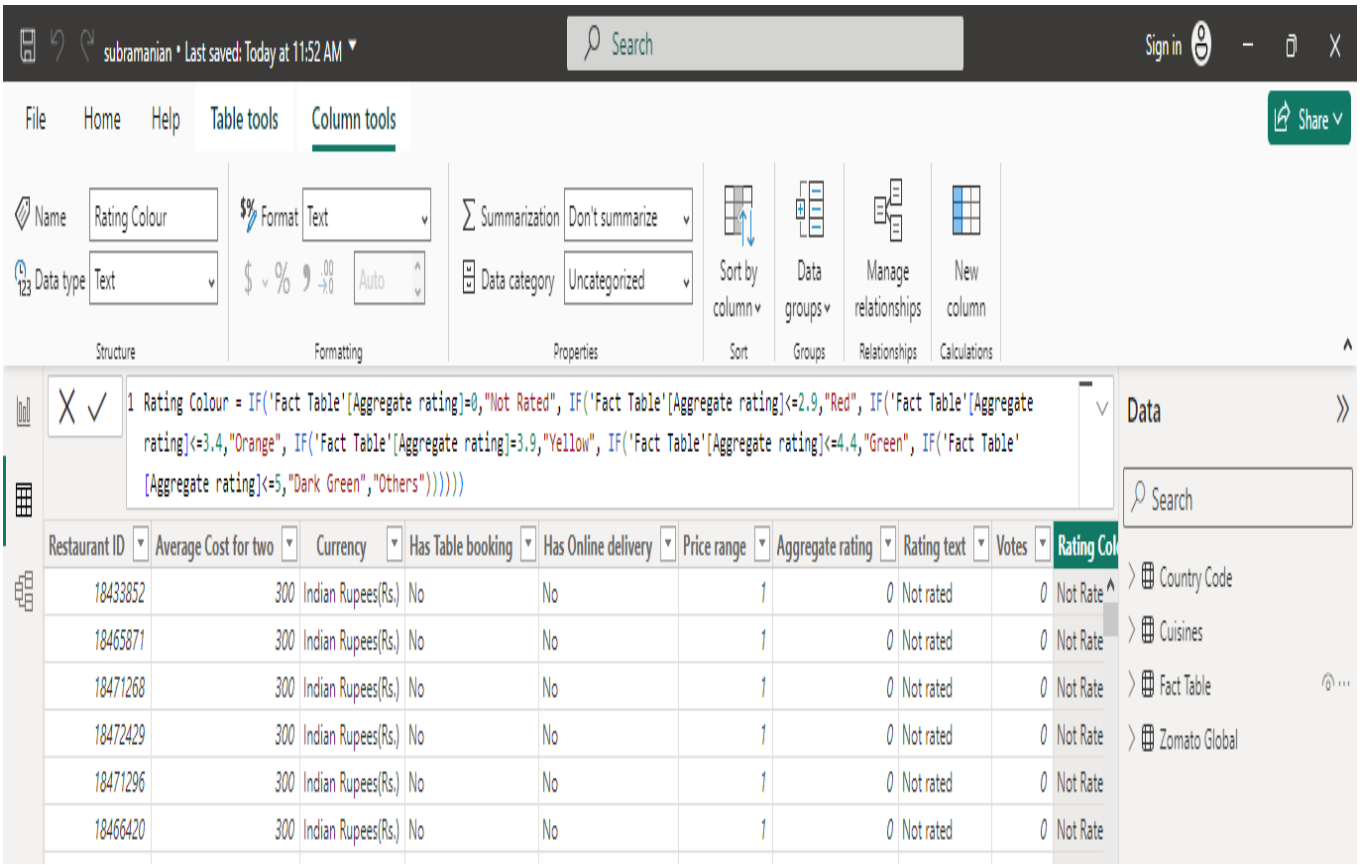


## Aggregate Rating and Rating Text

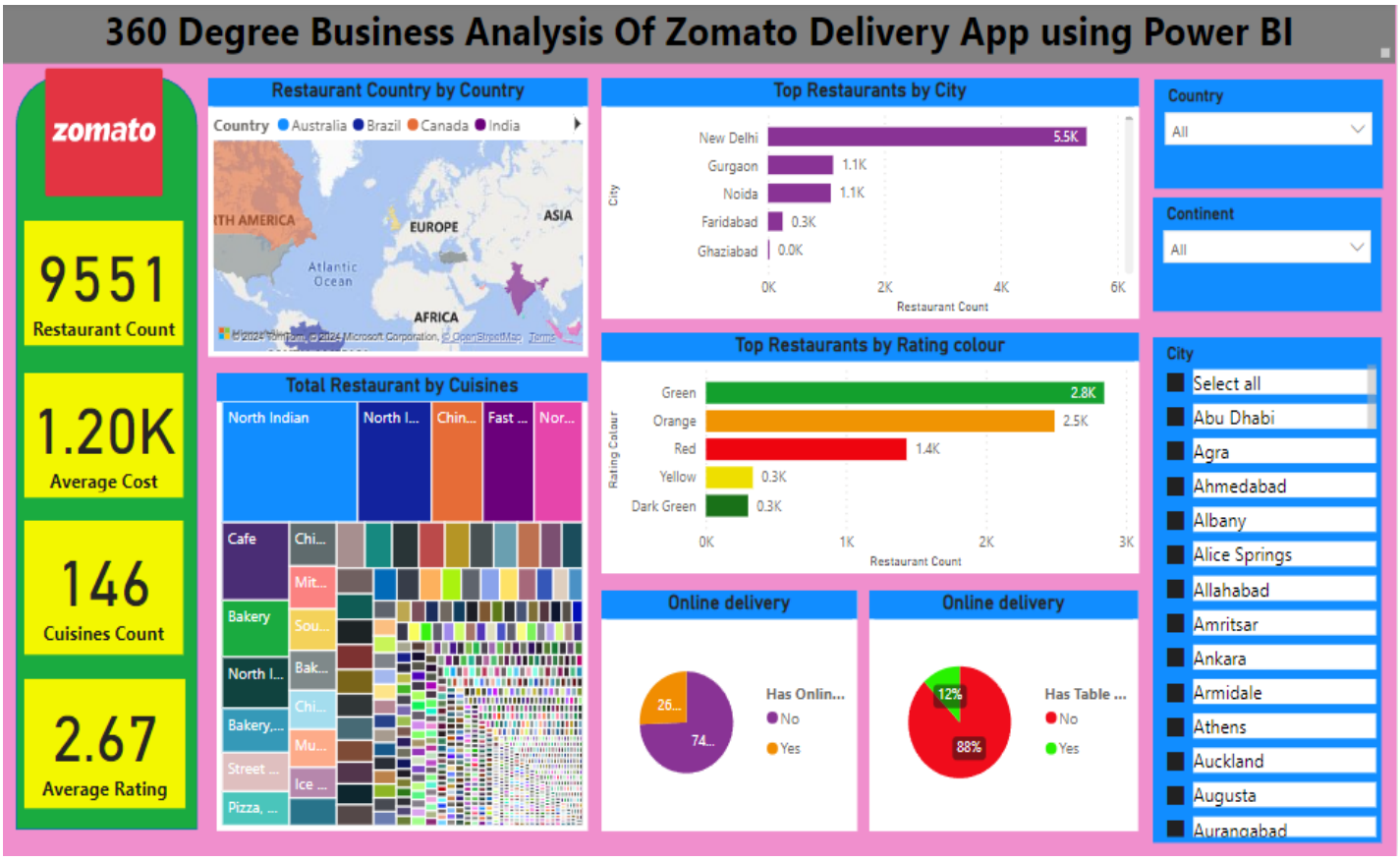
As the Aggregate Rating takes values from 0 to 4.9 which are not reader friendly. We can add a column to represent what it stands for, we also simplify the classification of those with different colours, refer to the table below for details on the new columns added.

| Aggregate Rating | Rating Text | Rating Colour |
|---|---|---|
| 0 | Not Rated | No Colour |
| 0 - 2.9 | Poor | Red |
| 3 - 3.4 | Average | Orange |
| 3.5 – 3.9 | Good | Yellow |
| 4 – 4.4 | Very Good | Green |
| 4.5 - 5 | Excellent | Dark Green |



# Dashboard



# CONCLUSION

The project “360-degree Business Analysis of Online Delivery Apps” using PowerBI has successfully demonstrated the potential of data analytics in the online delivery apps. The Zomata online delivery app analysis of customer data has provided valuable insights into customer behavior, preferences, and trends, thereby facilitating informed decision-making. The interactive dashboards and reports have offered a comprehensive view of customer data, enabling the identification of patterns and correlations. This has not only improved the efficiency of data analysis but also enhanced the online delivery Zomato app’s ability to provide personalized services to its customers. The project has also highlighted the importance of data visualization in making complex data more understandable and accessible. The use of PowerBI has made it possible to present data in a visually appealing and easy-to-understand format, thereby aiding in better decision-making.

# FUTURE SCOPE

The future scope of this project is vast. With the advent of advanced analytics and machine learning, PowerBI can be leveraged to predict future trends based on historical data. Integrating these predictive analytics into the project could enable the online delivery apps like Zomato to anticipate customer needs and proactively offer solutions. Furthermore, PowerBI's capability to integrate with various data sources opens up the possibility of incorporating more diverse datasets for a more holistic view of customers. As data privacy and security become increasingly important, future iterations of this project should focus on implementing robust data governance strategies. This would ensure the secure handling of sensitive customer data while complying with data protection regulations. Additionally, the project could explore the integration of Zomato apps data streams to provide even more timely and relevant insights. This could potentially transform the way online delivery apps interact with their customers, leading to improved customer satisfaction and loyalty.

# REFERENCES


- https://www.youtube.com/watch?v=x1ge5UM2ypE
- https://iide.co/blog/swot-analysis-of-zomato/

# LINK

https://github.com/gs1906/Zomato-Online-delivery