



Tech Saksham

Case Study Report

Data Analytics with Power BI

“360-Degree Business Analysis of Online Delivery Apps”

“K.R. College of Arts & Science”

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ABSTRACT

Focusing on the logistics and operational aspects of online delivery apps, this abstract could outline findings from data analytics aimed at optimizing the supply chain, including route optimization for drivers, inventory management, and cost reduction strategies.

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

This problem statement could address the challenge of maintaining high levels of customer satisfaction and retention within the fiercely competitive online delivery app market, emphasizing the need to identify factors influencing customer loyalty through data analytics.

1.2 Proposed Solution

This proposed solution involves implementing predictive analytics models to forecast demand for online delivery apps accurately. By analyzing historical data, seasonal trends, and external factors, such as weather or events, the app can optimize inventory levels, staffing, and delivery routes to meet demand efficiently.

1.3 Feature

- **Real-Time Analysis:** The dashboard will provide real-time analysis of restaurants in data.
- **Customer Segmentation:** It will segment Restaurants based on various parameters.
- **Trend Analysis:** The dashboard will identify and display trends in restaurant behavior.
- **Predictive Analysis:** It will use historical data to predict future restaurant behavior.

1.4 Advantages

- **Data-Driven Decisions:** Online Delivery Apps can make informed decisions based on real-time data analysis.
- **Improved Customer Engagement:** Understanding customer behavior and trends can help Online Delivery Apps engage with their customers more effectively.
- **Increased Revenue:** By identifying opportunities for cross-selling and up-selling, Online Delivery Apps can increase their revenue.

1.5 Scope

The scope of this data analytics report could include analyzing market trends and consumer behavior within the online delivery app sector. It aims to provide insights into changing consumer preferences, emerging market segments, and potential growth opportunities.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

- **Data Collection and Storage Services:** Banks 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 real-time 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.

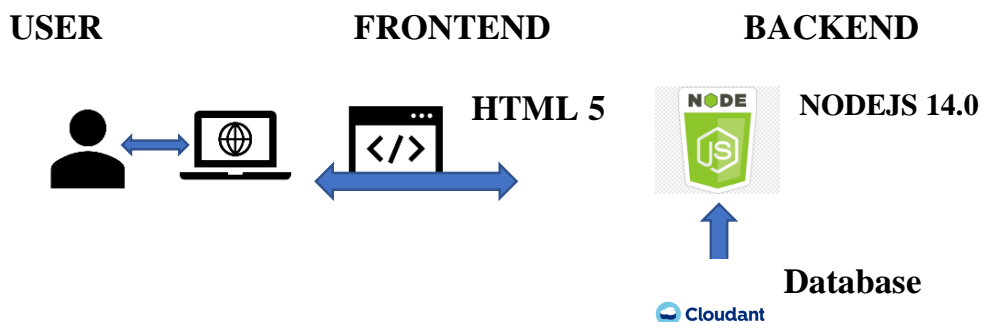
Software Requirements:

- **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:

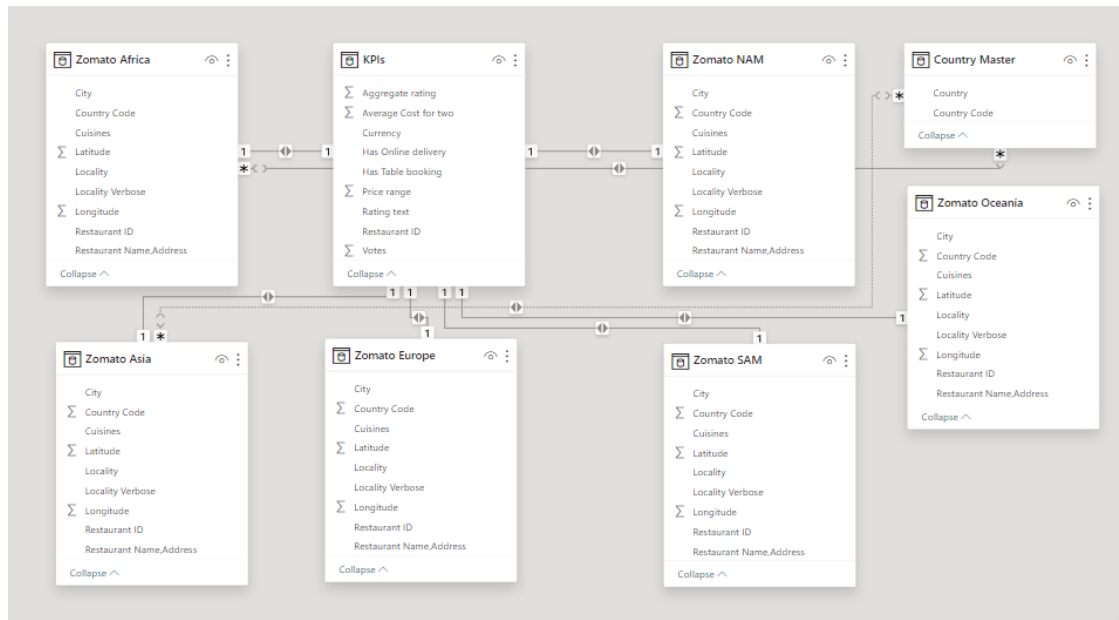
1. **Data Collection:** Real-time customer data is collected from various sources like bank transactions, customer interactions, etc. This could be achieved using services like Azure Event Hubs or AWS Kinesis.
2. **Data Storage:** The collected data is stored in a database for processing. Azure SQL Database 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.

CHAPTER 4

MODELING AND RESULT

Manage relationship

The “KPI’s” file will be used as the main connector as it contains most key identifier which can be use to relates the 8 data files together. The “district” file is use to link the client profile geographically with “Country Code”



Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	Country Master (Country Code)	Zomato Africa (Country Code)
<input type="checkbox"/>	Country Master (Country Code)	Zomato Asia (Country Code)
<input checked="" type="checkbox"/>	Zomato Africa (Restaurant ID)	KPIs (Restaurant ID)
<input checked="" type="checkbox"/>	Zomato Asia (Restaurant ID)	KPIs (Restaurant ID)
<input checked="" type="checkbox"/>	Zomato Europe (Restaurant ID)	KPIs (Restaurant ID)
<input checked="" type="checkbox"/>	Zomato NAM (Restaurant ID)	KPIs (Restaurant ID)
<input checked="" type="checkbox"/>	Zomato Oceania (Restaurant ID)	KPIs (Restaurant ID)
<input checked="" type="checkbox"/>	Zomato SAM (Restaurant ID)	KPIs (Restaurant ID)

[New...](#)
[Autodetect...](#)
[Edit...](#)
[Delete](#)
[Close](#)

Edit relationship

Select tables and columns that are related.

Country Master

Country Code	Country
94	Indonesia
94	Indonesia
191	Sri Lanka

Zomato Africa

Restaurant ID	Country Code	City	Restaurant Name,Address	Locality
18395463	189	Cape Town	The Butcher's Wife,15 Belgravia Road, Athlone, Cape T...	Athlone
18337845	189	Cape Town	Coco Safar,Ground Floor, Cavendish Square, Claremont...	Cavendish Square, C
6401732	189	Cape Town	La Parada,107 Bree Street, CBD, Cape Town	CBD

Cardinality
Many to many ("*:")

Cross filter direction
Both

☒ Make this relationship active
☐ Assume referential integrity

☐ Apply security filter in both directions

⚠ This relationship has cardinality Many-Many. This should only be used if it is expected that neither column (Country Master and Zomato Africa) contains unique values, and that the significantly different behavior of Many-many relationships is understood. [Learn more](#)

OK

Cancel

Replacing values

Set some fields to English for easy understanding, we replace values to English with the Power Query Editor.

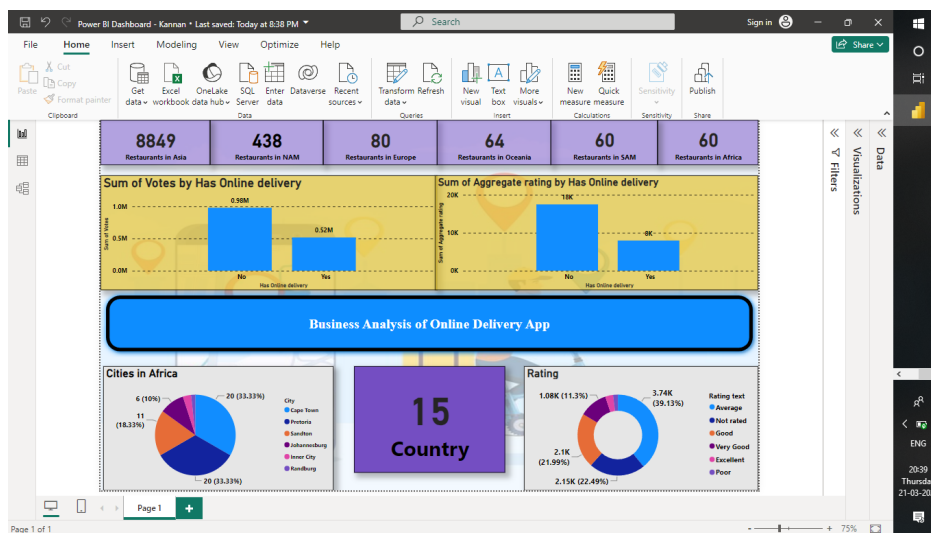
The screenshot shows the Power Query Editor interface. A table with 9 columns and 999+ rows is displayed. The columns are: Restaurant ID, Average Cost for two, Currency, Has Table booking, and Has Online delivery. A 'Replace Values' dialog box is open, allowing the user to replace one value with another in the selected columns. The 'Value To Find' is set to '1' and the 'Replace With' is set to 'English'. The dialog also includes a 'Yes' button and a 'Cancel' button.

OBJECTIVE :

Assess customer feedback, ratings, reviews to gauge overall satisfaction levels and pinpoint areas needing attention.



Dashboard



CONCLUSION

In the conclusion of the data analytics report on online delivery apps, recommendations can be provided for strategic improvements based on the findings. This could include suggestions for enhancing user experience, optimizing operational processes, or implementing new features to stay competitive.

FUTURE SCOPE

The future scope could involve exploring advanced predictive modeling techniques to forecast demand more accurately, anticipate user behavior, and optimize resource allocation for online delivery apps.

REFERENCES