Tech Saksham

Case Study Report

Data Analytics with Power BI

360-degree Business Analysis of Online Delivery Apps

The M.D.T Hindu College

NM ID	NAME
2179FB19421629AAC6844A0956823491	R.ESAKKIAMMAL

Trainer Name R.UMAMAHESWARI

Master Trainer R.UMAMAHESWARI

ABSTRACT

This paper presents a thorough 360-degree business analysis of online delivery apps, focusing on key aspects shaping the industry's landscape. It examines market dynamics, including growth trends and consumer preferences, while delving into various business models and revenue streams employed by leading platforms. Technological advancements, such as AI-driven systems and emerging delivery methods, are explored alongside a detailed assessment of the competitive landscape, regulatory challenges, and future prospects. By offering insights into market trends, challenges, and opportunities, this analysis aims to provide stakeholders with valuable guidance for navigating the dynamic online delivery app ecosystem effectively.

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

The rapid expansion of online delivery apps has revolutionized the food and grocery industry, yet it has also introduced a myriad of challenges and complexities. One of the primary problems facing this sector is the intensifying competition among market players, leading to aggressive pricing strategies and heightened operational pressures. Additionally, the reliance on gig economy workers for delivery services has raised concerns over labor rights and regulatory compliance.

1.2 Proposed Solution

To address the multifaceted challenges confronting the online delivery app industry, a holistic approach is proposed. Firstly, fostering innovation in technology, particularly in AI-driven recommendation systems and delivery logistics, can enhance operational efficiency and customer experience while optimizing resource utilization. Secondly, collaboration between industry stakeholders and regulatory bodies is essential to establish standardized frameworks that ensure compliance with labor laws, food safety regulations, and licensing requirements across jurisdictions.

1.3 Feature

Real-Time Tracking: Ability for users to track the status of their orders in real-time, providing transparency and peace of mind regarding delivery timelines.

Secure Payment Options: Support for multiple payment methods, including credit/debit cards, digital wallets, and cash on delivery, ensuring convenient and secure transactions.

User-friendly Interface: Intuitive design and easy navigation for users to browse menus, place orders, and track deliveries effortlessly.

Reviews and Ratings: Integration of a rating and review system where users can provide feedback on restaurants, delivery drivers, and overall service quality.

Order Customization :Options for users to customize their orders by specifying preferences, dietary restrictions, and special r instructions.

1.4 Advantages

Wide Variety: Users have access to a wide range of restaurants, cuisines, and stores through online delivery apps, providing them with diverse options to satisfy their preferences and cravings.

Time Efficiency: Online delivery apps streamline the ordering and delivery process, minimizing wait times and enabling users to receive their orders promptly, especially during busy periods.

Accessibility: These apps are accessible 24/7, allowing users to place orders at any time of the day or night, catering to their needs and schedules.

1.5 Scope

The scope of online delivery apps extends beyond merely facilitating food and grocery deliveries; it encompasses a wide array of goods and services, including

but not limited to meals, groceries, pharmaceuticals, electronics, and even pet supplies. Moreover, with the integration of advanced technologies such as AI, machine learning, and IoT, online delivery apps have the potential to offer personalized recommendations, optimize delivery routes, and enhance user experiences further. The scope also encompasses various business models, from aggregator platforms connecting users with local restaurants and stores to vertically integrated delivery services managing the entire supply chain.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

- **Data Collection**: Identify the sources of data relevant to the project, such as transactional databases, web services, APIs, spreadsheets, or external sources
- **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.

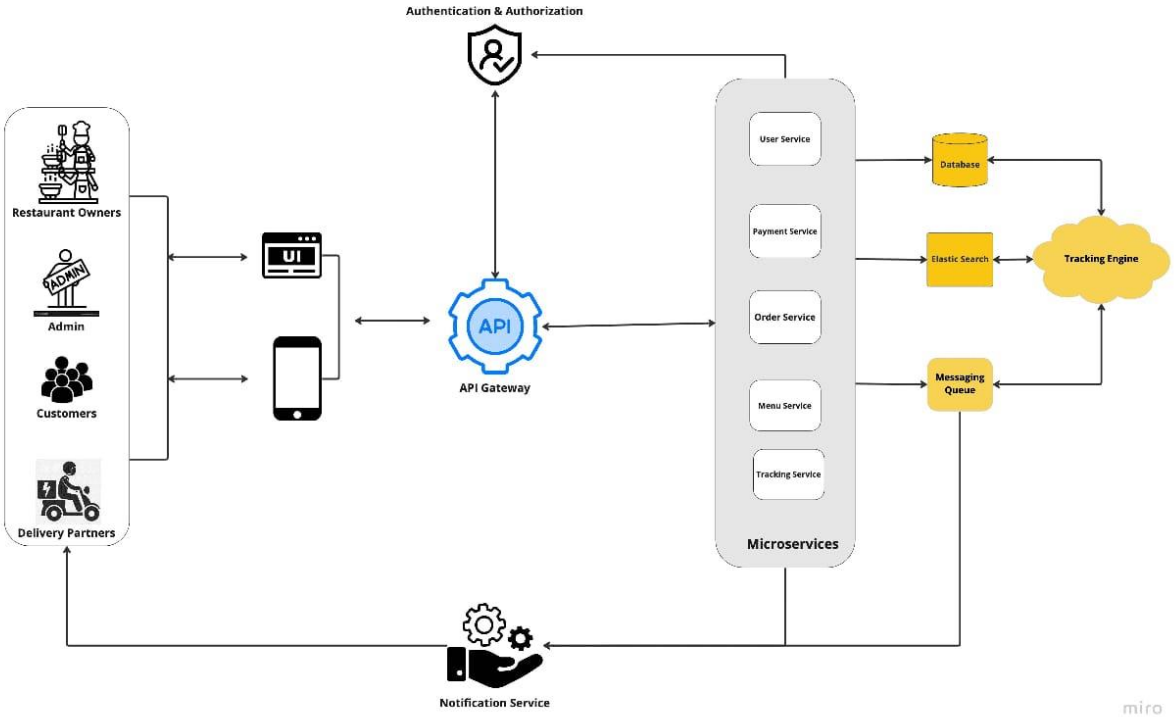
- **PowerBI Service**: This is an online SaaS (Software as a Service) service that you use to publish reports, create new dashboards, and share insights.

- **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:

Identify Data Sources:

Identify and catalog all relevant data sources, including databases, spreadsheets, APIs, and external sources.

Determine the frequency of data updates and the volume of data to be processed.

Data Extraction:

Use Power BI Desktop to connect to the identified data sources using built-in connectors or custom connectors.

Data Transformation:

Utilize Power Query Editor within Power BI Desktop to clean, transform, and shape the data according to business requirements.

Data Storage:

Publish the data model from Power BI Desktop to Power BI Service, Microsoft's cloud-based platform.

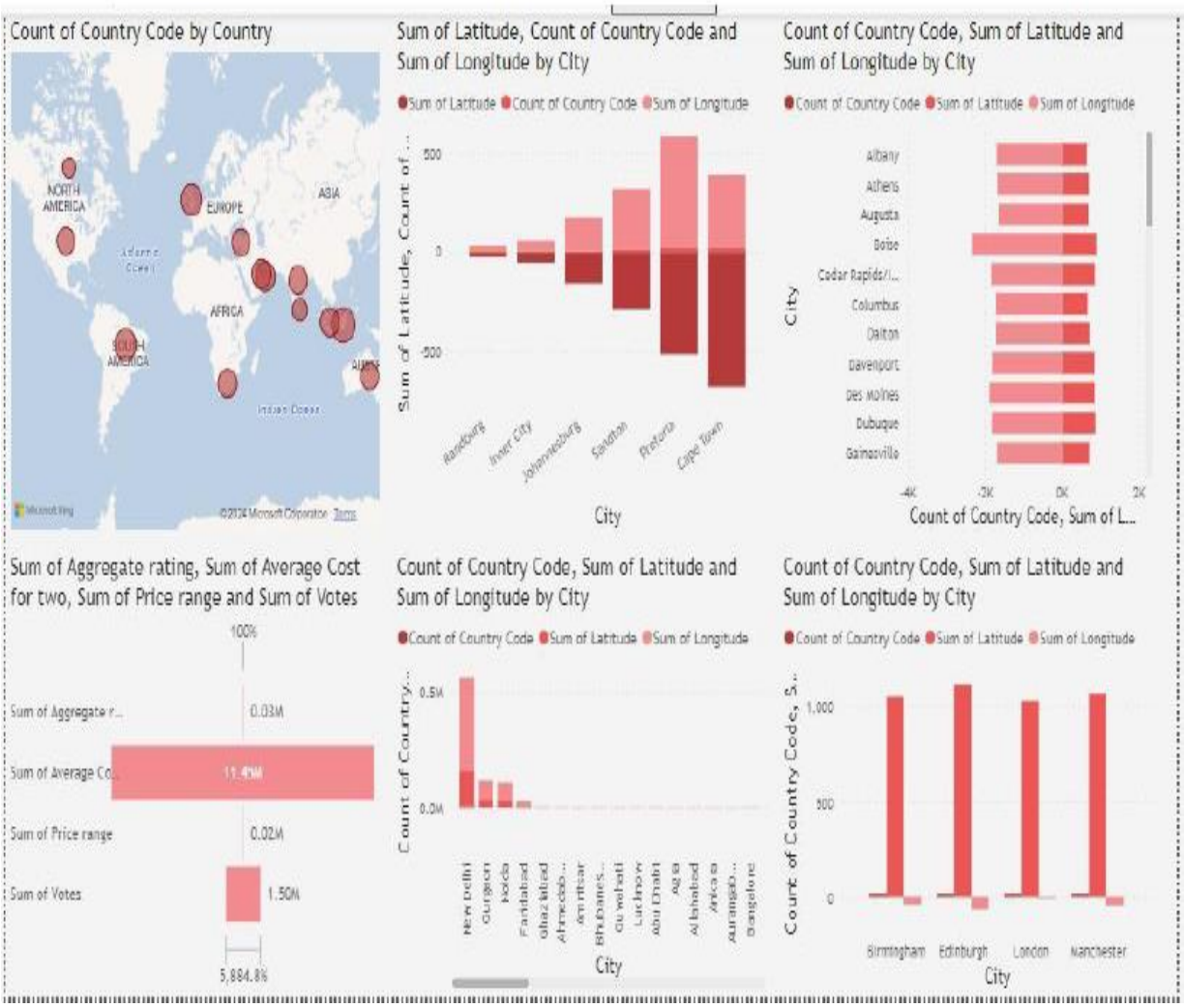
Store the data model within Power BI Service's internal storage, ensuring accessibility and scalability for future use.

Report and Dashboard Creation:

Use Power BI Service to create interactive reports and dashboards based on the published data model.

CHAPTER 4

DASHBOARD



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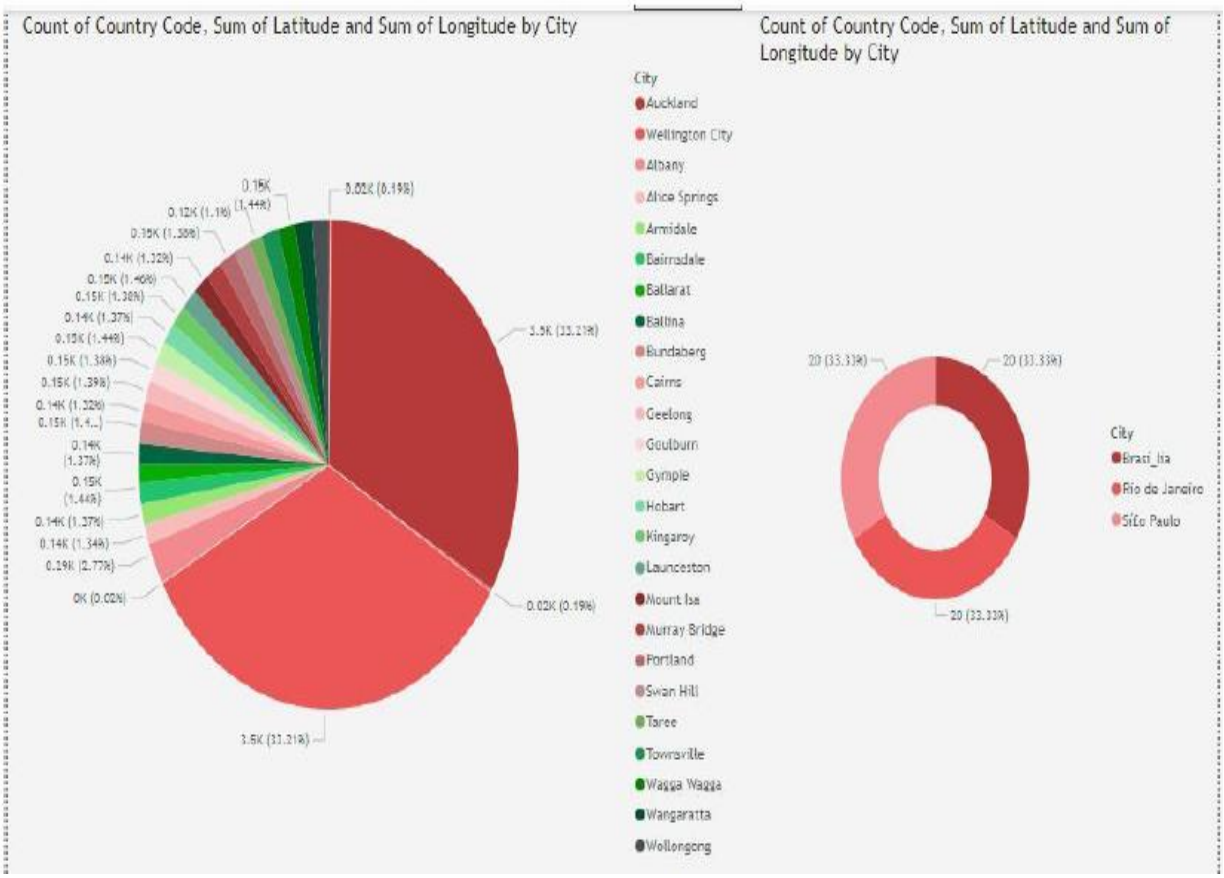

CONCLUSION

In conclusion, the project utilizing Power BI for data collection and storage offers a comprehensive solution for organizations to harness the power of their data and derive actionable insights. By following a systematic approach to data extraction, transformation, modeling, and visualization, the project enables stakeholders to make informed decisions and drive business growth. The integration of Power BI Desktop and Power BI Service provides a seamless end-to-end workflow for managing data pipelines, creating interactive reports and dashboards, and sharing insights with relevant stakeholders.

FUTURE SCOPE

The future scope of the project utilizing Power BI for data collection and storage is promising, with several avenues for expansion and enhancement:

Advanced Analytics and Predictive Modeling: Incorporate advanced analytics techniques such as machine learning and predictive modeling to uncover deeper insights and forecast future trends based on historical data. This can include predictive maintenance, demand forecasting, and customer segmentation for targeted marketing.

Integration with IoT Devices: Explore integration with Internet of Things (IoT) devices to capture real-time data streams from sensors and connected devices. This can enable monitoring of equipment performance, environmental conditions, and other IoT-driven insights for operational efficiency and decision-making.

Enhanced Data Visualization: Continuously improve data visualization techniques to provide more interactive, intuitive, and insightful dashboards. Experiment with emerging visualization technologies such as augmented reality (AR) and virtual reality (VR) to create immersive data experiences.

REFERENCES

https://youtu.be/ZgzGqoq3Xuc?si=ClRHlJTMjVwfV3VT

LINK

