Report On

Restaurants Data Analysis

Submitted in partial fulfillment of the requirements of the Course project in Semester VII of fourth year Artificial Intelligence and Data Science

by

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CERTIFICATE

This is to certify that the project entitled “Restaurants Data Analysis” is a bonafide work of “Vivek Prajapati (Roll No. 22), Prathmesh Shinde (Roll No. 27), Hirenkumar Vyas (Roll No. 32), Prasad Shah (Roll No. 25) ” submitted to the University of Mumbai in partial fulfillment of the requirement for the Course project in Semester VII of fourth year Artificial Intelligence and Data Science engineering.

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Chapter 1: Abstract

The Restaurant Data Analysis Project represents an in-depth exploration of the Zomato Restaurants Dataset using Power BI as the primary analytical tool. The primary aim of this project was to delve into the dynamics of the restaurant industry, scrutinizing aspects such as restaurant ratings, cuisines, geographical distribution, and consumer preferences. This report encapsulates a comprehensive analysis of the dataset and delineates the findings and recommendations that could prove invaluable for restaurant owners and stakeholders.

Chapter 2: Introduction

2.1 Introduction

In recent years, the restaurant sector has seen tremendous transition, driven by changing consumer tastes, technology breakthroughs, and a heightened feeling of rivalry. In this continuously changing industry, data-driven insights are critical in directing restaurant owners and decision-makers towards educated decisions that may boost their competitive advantage. The Zomato eateries Dataset, which has a variety of information about various eateries, is a goldmine of data ready to be mined for such decisions.

The Zomato Restaurants Dataset was chosen because it is quite useful. It contains information on thousands of restaurants, including information on their locations, cuisines, user reviews, and a variety of other factors crucial to the profitability and survival of restaurants in the current era.

2.2 Problem Statement

The restaurant industry has seen enormous change in recent years, owing to shifting customer tastes, technological innovations, and heightened competitiveness. In this ever-changing business, data-driven insights are crucial in guiding restaurant owners and decision-makers to educated decisions that may increase their competitive edge. The Zomato Eating Places Dataset, which has a wealth of information on numerous eateries, is a treasure of information waiting to be mined for such choices.

2.3 Objectives

The Restaurant Data Analysis Project endeavors to achieve the following key objectives:

- Data Exploration: Thoroughly examine the dataset to gain a comprehensive understanding of the information it contains.
- Data Analysis: Employ Power BI to create visualizations and dashboards that reveal insights regarding various aspects of the restaurant industry.
- Findings and Insights: Extract meaningful findings and insights from the data that can inform business strategies and decisions.
- Recommendations: Propose practical recommendations based on the analysis for restaurant owners and stakeholders to enhance their operations.

Chapter 3: Proposed System

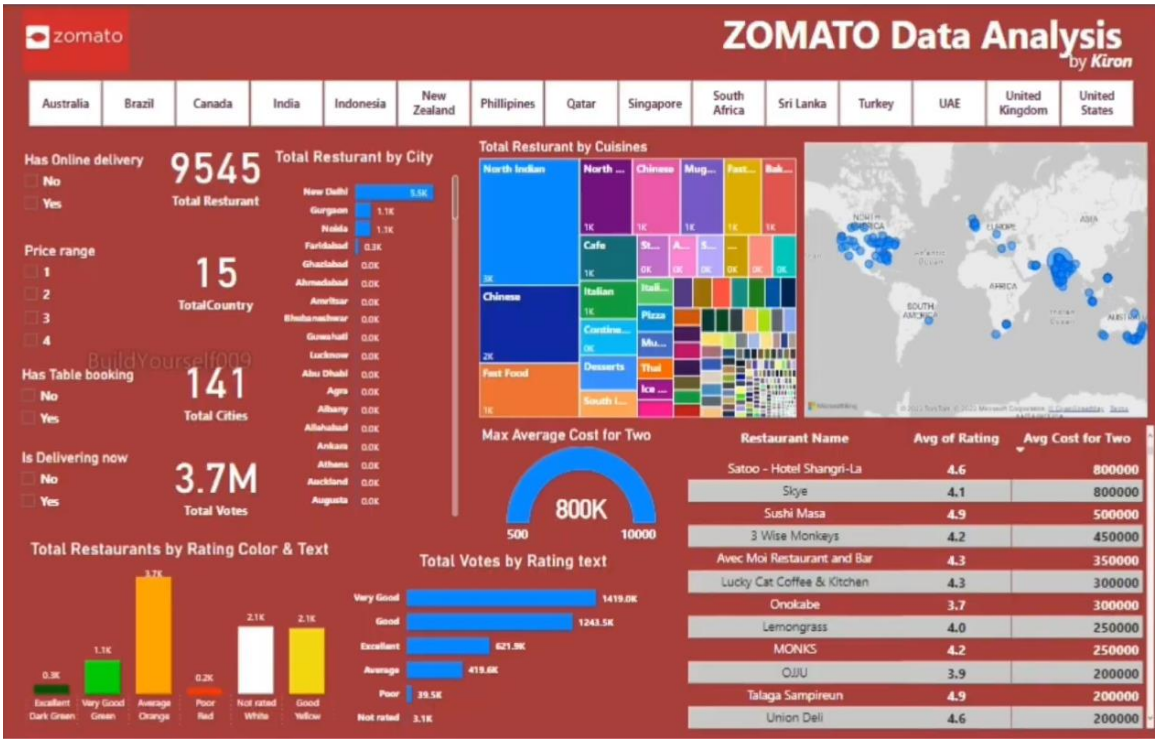
3.1 Introduction

The suggested system is centred on the construction of an all-encompassing Big Data Solution. This approach entails the implementation of cutting-edge technology and techniques geared at reducing the organization's data issues. This system will be built around a solid Big Data architecture, which will include Hadoop clusters for distributed storage and processing, NoSQL databases for quick data retrieval, and real-time processing capabilities via technologies such as Apache Kafka. Owners will be able to handle the enormous and varied data streams that are now a barrier by employing these technologies.

3.2 Details of Hardware and Software

- Power BI Desktop
- Power BI Service
- Power Query
- Kaggle
- Microsoft excel

3.3 Results



3.4 Conclusion

Using Zomato's huge dataset, the Restaurant Data Analysis project has offered crucial insights into the restaurant business. We investigated many components of the dataset during this study, including restaurant locations, customer reviews, popular cuisines, and rating patterns. The findings shed light on the dynamics of the restaurant industry and provided suggestions for stakeholders and restaurant owners.

According to our findings, restaurant concentration is higher in metropolitan locations, where customers have a variety of dining alternatives. Indian and Chinese cuisines appeared as the most popular options, indicating a clear client preference. Furthermore, we discovered a positive relationship between restaurant ratings and the number of customer votes, implying that highly rated restaurants attract more customers and obtain more evaluations.

We were able to discover trends in client behaviour thanks to the project's visualisations and dashboards. Weekends regularly have greater levels of restaurant activity and customer evaluations, which may be used for marketing and promotions. We also discovered seasonal patterns and the impact of restaurant features on client choices.

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