

Case Study: Online Food Ordering Behavior Analysis

1. Introduction

- Overview of online food ordering trends.
- Importance of data-driven insights in the food delivery industry.
- Objective: Understanding customer behavior, preferences, and restaurant performance.

2. Dataset Description

- Overview of the dataset and its source.
- Key features/columns included in the dataset.
- Description of data types and structure.

3. Problem Statement & Objectives

- Identifying key factors influencing customer orders.
- Analyzing restaurant ratings and their impact on order volume.
- Exploring the effect of delivery time, cost, and offers on customer choices.
- Understanding order frequency and peak hours.

4. Exploratory Data Analysis (EDA)

4.1 Data Cleaning & Preprocessing

- Handling missing values.
- Dealing with duplicate entries.
- Normalizing categorical values.
- Outlier detection and treatment.

4.2 Descriptive Analysis

- Summary statistics of numerical and categorical variables.

- Distribution of order quantities, prices, and delivery times.
- Most frequently ordered cuisines and dishes.

4.3 Customer Behavior Insights

- Identifying peak ordering hours.
- Analysis of repeat customers vs. first-time users.
- Preferences based on price range, cuisine, and delivery time.

4.4 Restaurant Performance Analysis

- Rating distribution of restaurants.
- Correlation between ratings, delivery time, and order volume.
- Top-performing restaurants based on revenue and orders.

5. Visualizations & Insights

- Bar charts for most ordered cuisines.
- Heatmaps for peak order hours.
- Boxplots for price variations across cuisines.
- Scatter plots showing correlation between ratings and order frequency.

7. Key Findings & Business Recommendations

- Summary of insights from the analysis.
 - Strategic recommendations for restaurants and food delivery platforms.
 - Potential areas for further research and optimization.
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