

# Findings Report: User Behavior Analysis

## 1. Introduction

The primary goal of this analysis is to explore user behavior, cooking preferences, and order trends using three datasets: User Details, Cooking Sessions and Order Details. The process involves cleaning, merging, analyzing and visualizing data to extract actionable insights and make business recommendations.

## 2. Key Findings

### 2.1 Popular Dishes:

- Cooked Dishes: The top 3 most cooked dishes include Spaghetti, Grilled Chicken, Caesar Salad.

### 2.2 Demographic Insights:

- Age group Trends: Users aged 28-42 cooked and ordered the most dishes.
- Location Preferences: Users in Los Angeles preferred Caesar Salad, Spaghetti, Oatmeal, users in Chicago favored Grilled Chicken, Pancakes, Veggie Burger while users in New York preferred Grilled Chicken, Spaghetti and Pancakes.

### 2.3 Relationship between Cooking Sessions and orders

- A positive correlation exists between session ratings and order ratings, with higher-rated cooking sessions results in better order experiences.
- Dish with high cooking session ratings include Grilled Chicken, aligning with popular ordered dish.

### 2.4 User Engagement

- The average session rating across all users was 4.48, while the average order rating was 4.26.
- Users with consistent engagement in cooking sessions tended to order more frequently.

## 3. Visual Insights

### 3.1 Popular Cooked and Ordered Dishes

- Bar Charts illustrates most cooked and ordered dishes.
- Heatmaps show the average session and order ratings for top dishes.

### 3.2 Demographic Insights

- Pie charts and bar plots reveal the distribution of users by age group and location.
- Scatter plots display relationships between session and order ratings, segmented by age.

## 4. Business Recommendations

- Promote Popular Dishes: Focus marketing efforts on dishes like Grilled Chicken, Spaghetti, Caesar Salad , particularly for users aged 28-42
- Incentivize Cooking Sessions: Offer discounts or rewards for participating in cooking sessions to enhance engagement and improve order ratings.
- Targeted Campaigns by Location: Customize campaigns based on regional preferences.
- Improve Low-Rated Dishes: Analyze feedback for dishes with low ratings to address quality issues and improve user satisfaction.

## 5. Conclusion

This analysis provides a comprehensive understanding of user behavior, cooking preferences, and order patterns. By implementing the recommended strategies, the business can enhance user engagement, improve satisfaction, and increase revenue.

## Attachments

- Data: Cleaned\_Merged\_Data.csv
- Visuals: Plots and Charts saved in the visuals directory.
- Code: Python script used for analysis in code/ assignment\_solution.py.