PROJECT REPORT & BUSINESS RECOMMENDATION

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OBJECTIVE

The objective of this assignment is to analyze datasets related to user behavior, cooking preferences, and order trends.

OVERVIEW

This data analysis project will identify the connection between user behavior, cooking preferences, and order trends to develop actionable insights to enhance customer engagement and maximize business performance. The datasets analyzed are UserDetails, CookingSessions, and OrderDetails, which provide unique angles on user demographics, the dynamics of cooking sessions, and ordering patterns.

ANALYSIS SEQUENCE

DATA CLEANING

Missing values were handled using imputation methods like median for numerical data.
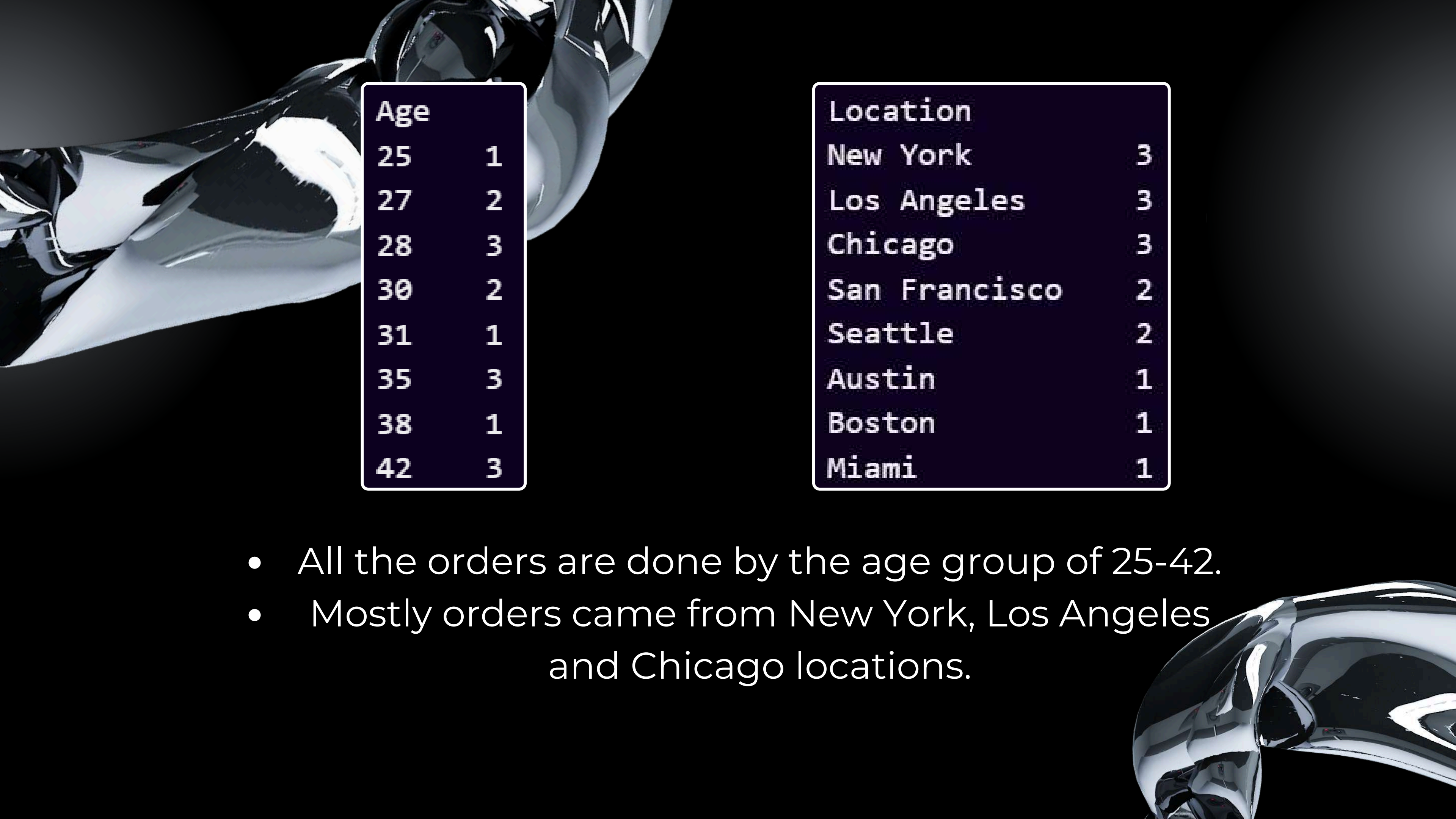
DATA MERGING

Datasets were merged based on shared keys (User ID and Session ID) with clear distinction between cooked and ordered dishes.
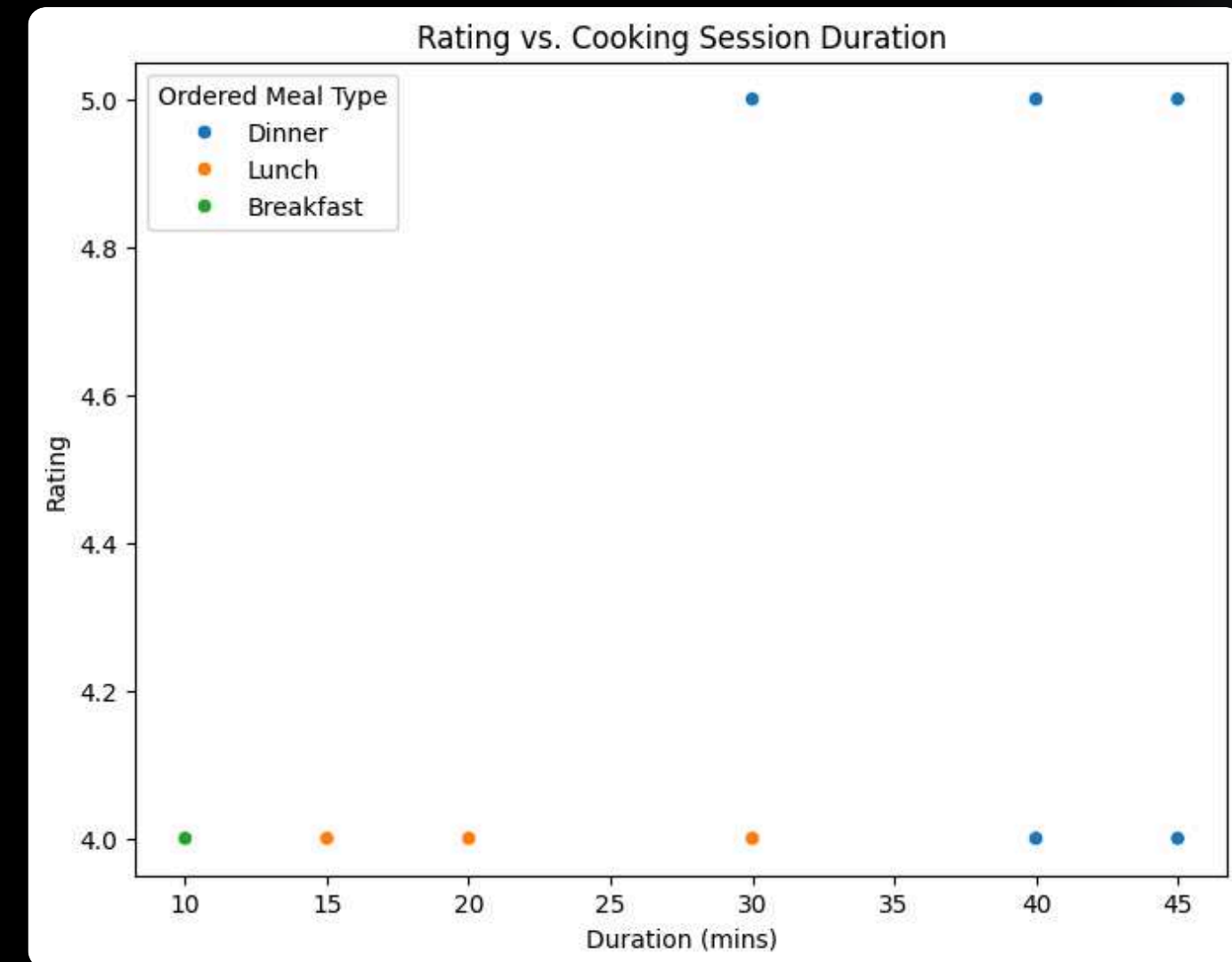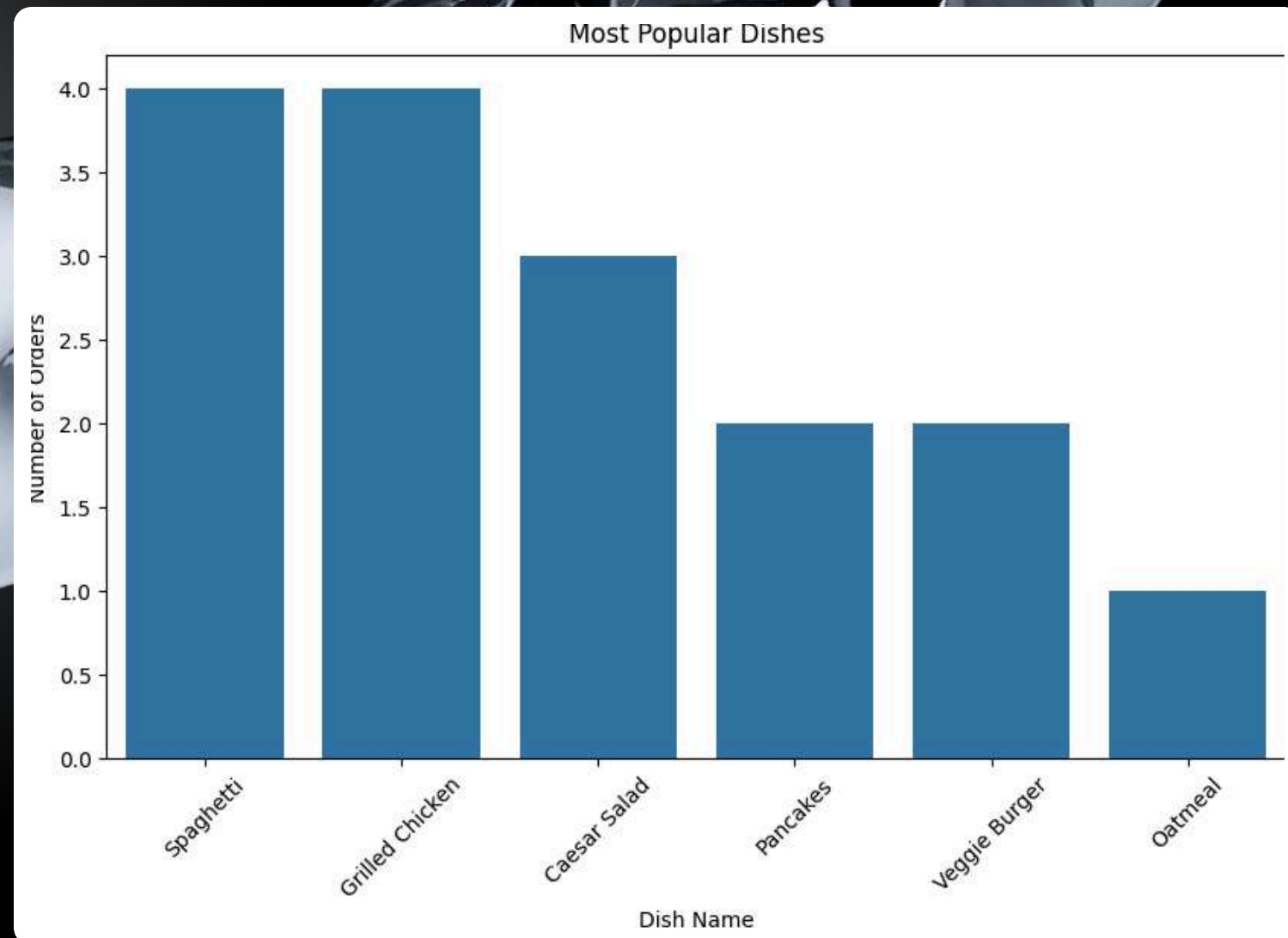
KEY
INSIGHTS

Age	
25	1
27	2
28	3
30	2
31	1
35	3
38	1
42	3

| Location	
New York	3
Los Angeles	3
Chicago	3
San Francisco	2
Seattle	2
Austin	1
Boston	1
Miami	1

- All the orders are done by the age group of 25-42.
- Mostly orders came from New York, Los Angeles and Chicago locations.

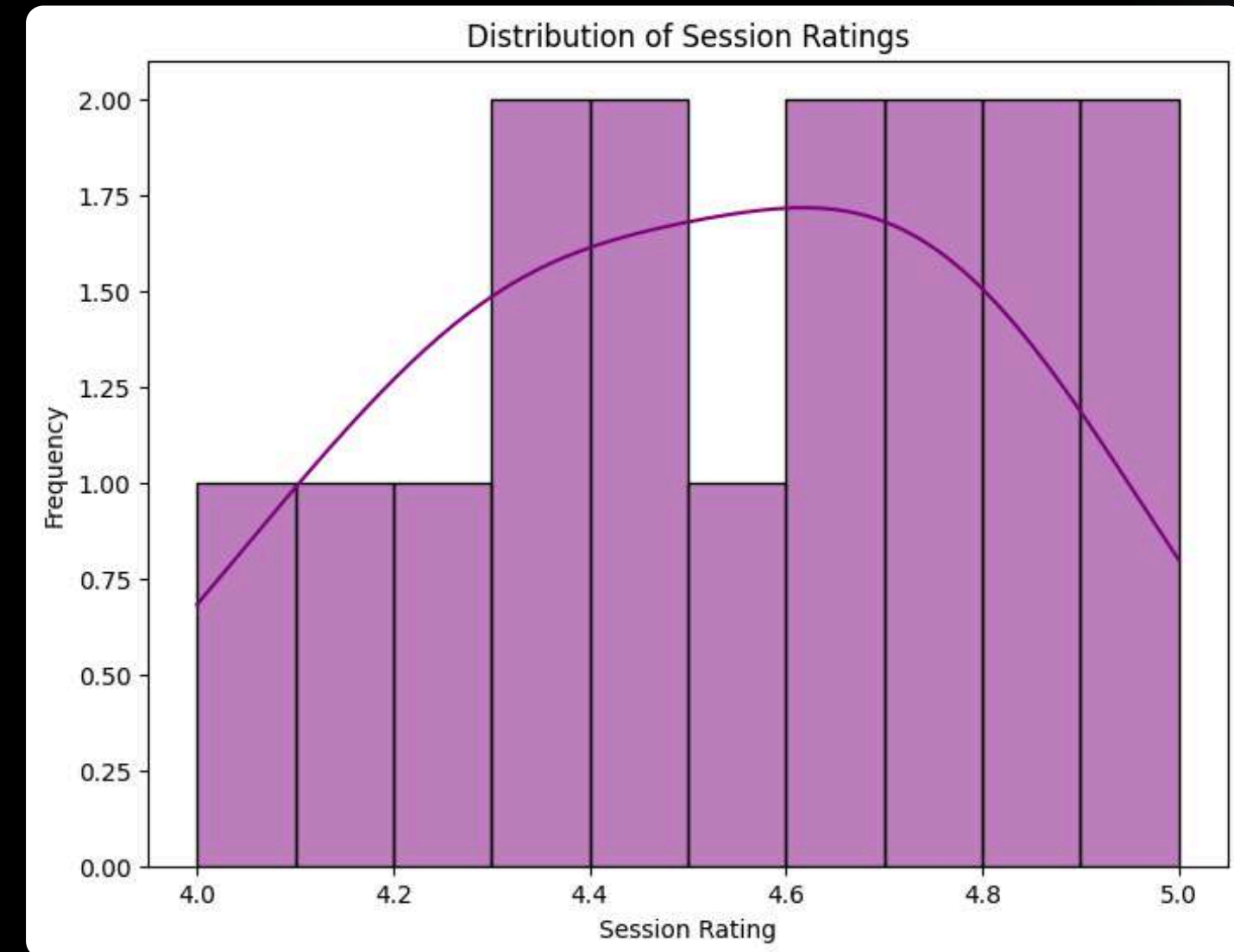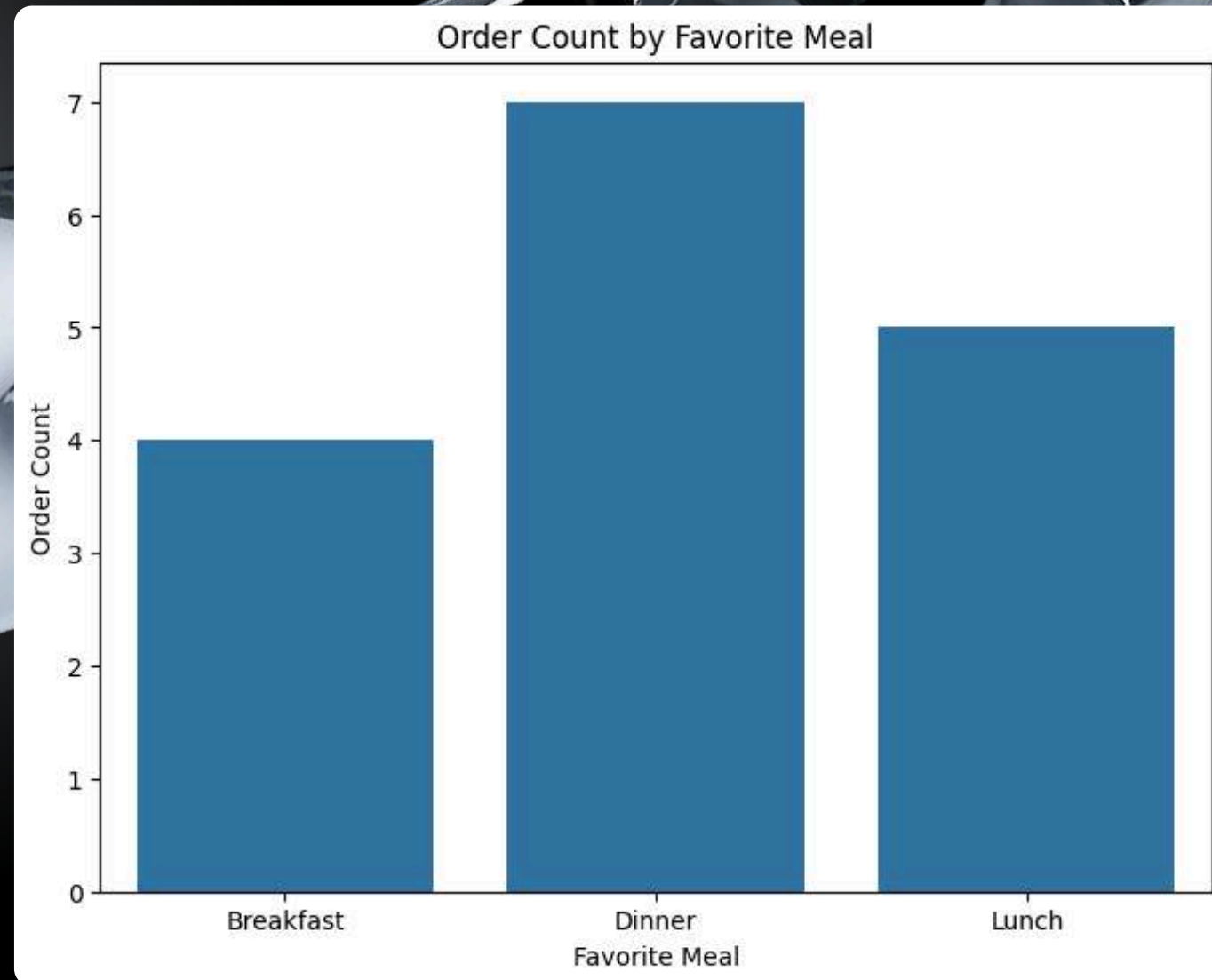Most Popular Dishes

Rating vs. Cooking Session Duration

- Spaghetti and Grilled Chicken are mostly ordered and Oatmeal are least ordered dish.
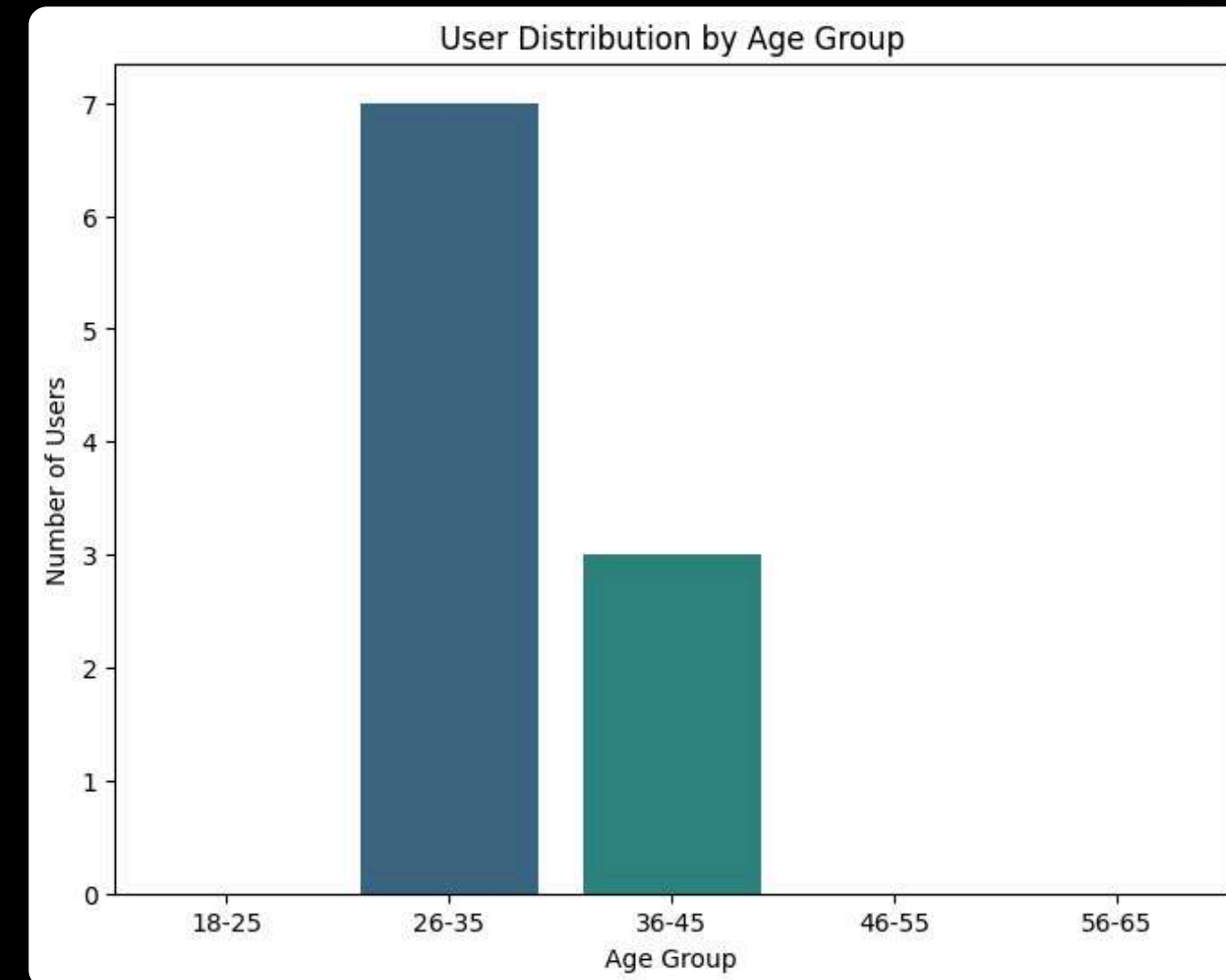- Most of the Meal Types are rated as 4.0. Only Dinner has been rater 5.0 rating.
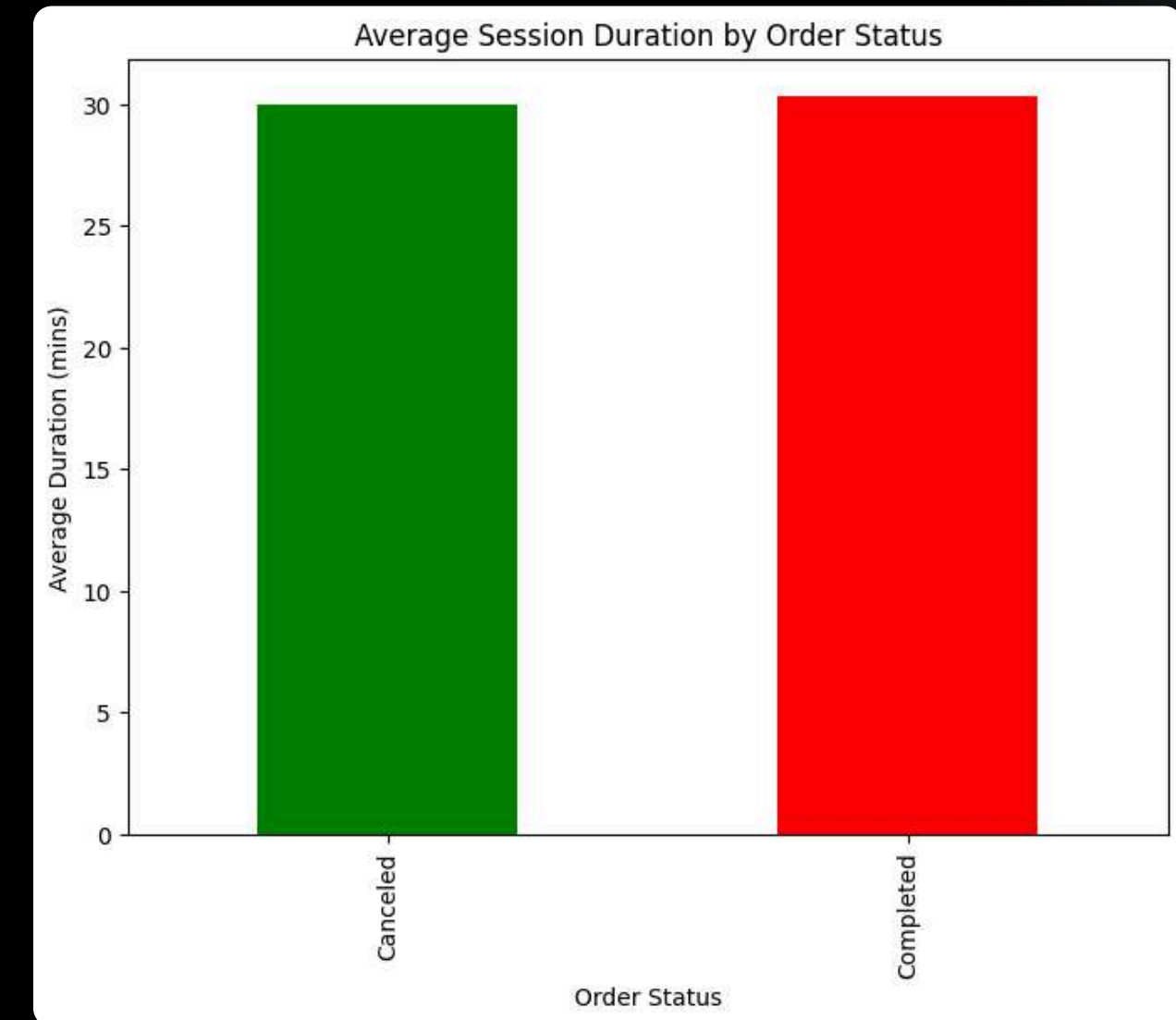
- All the orders and sessions made in the month December.
- There is almost similar session duration for both canceled and completed duration.

- Out of all meal type peopla mostly prefered Dinner.
- Mostly rating lies between 4-5.

Revenue Distribution by Meal Type

User Distribution by Age Group
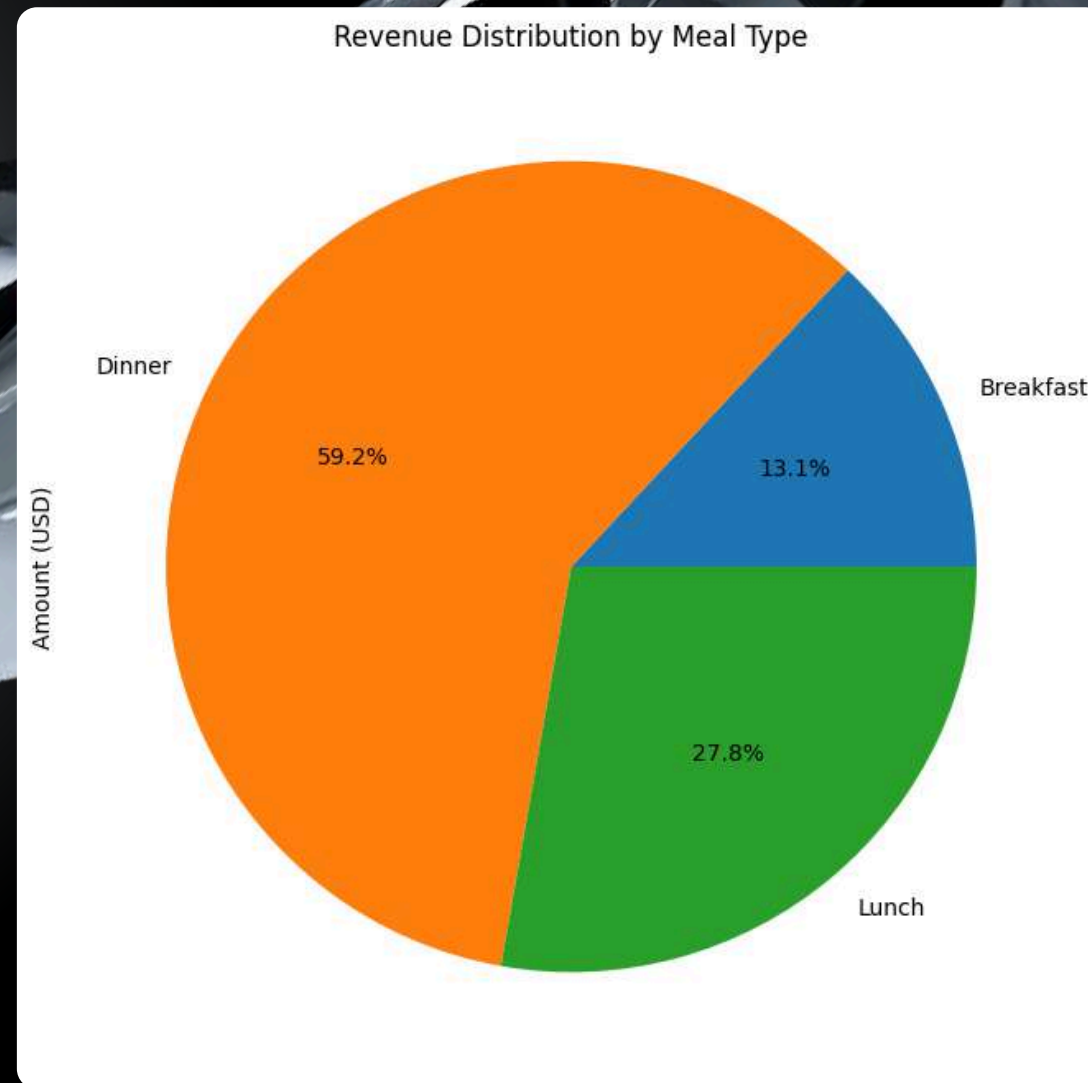
- Revenue-wise Dinner creates more revenue than Lunch and Breakfast.
- All the users are from the age group 26-45 and mostly are from the 26-35 age group.
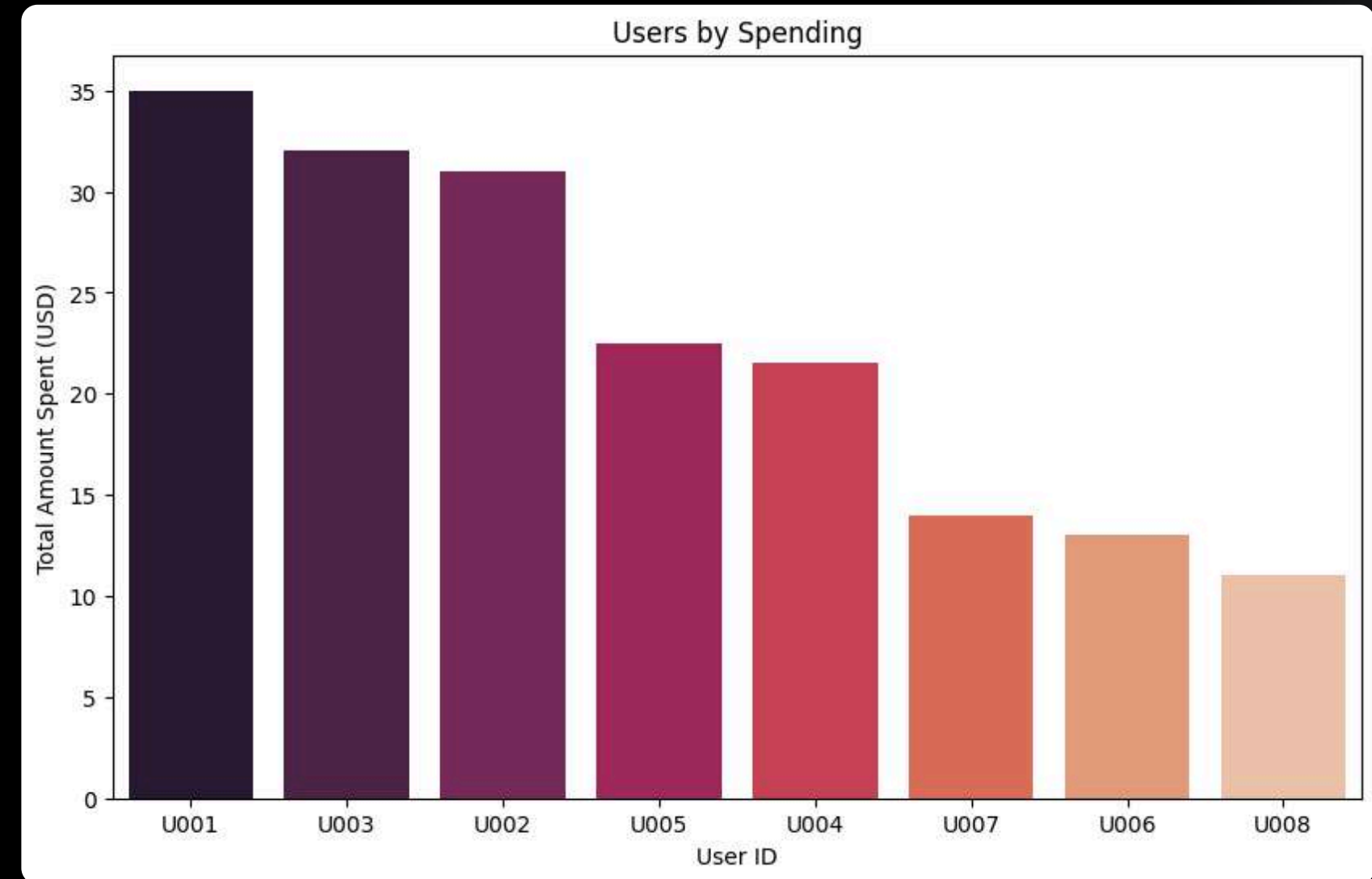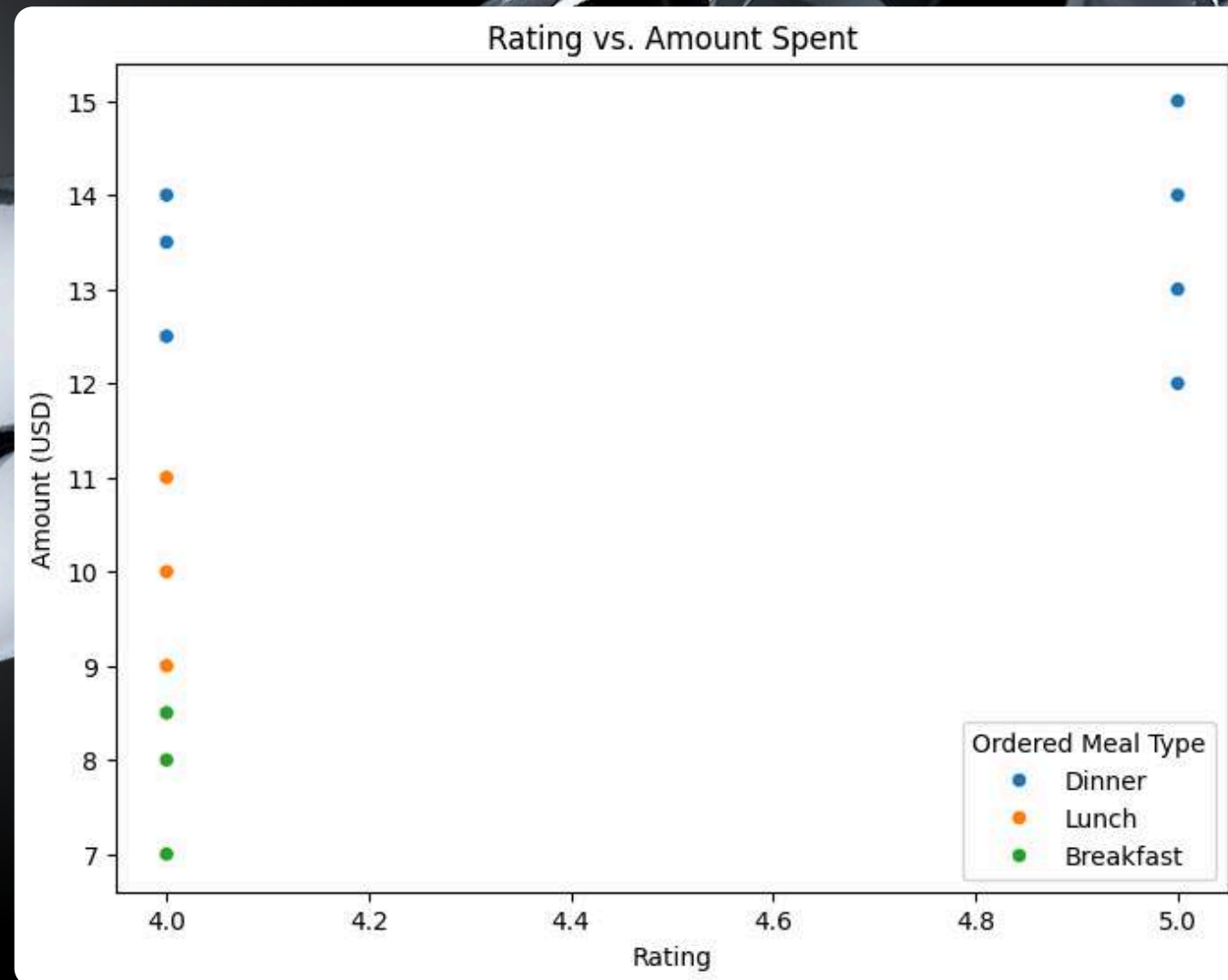
- 5.0 rating generates more revenue in comparison of 4.0 rating.
- U001 spent more and U008 spent least amount.

SUMMARY
OF FINDINGS

Popular Dishes:
Certain dishes, such as Spaghetti, Caesar Salad, and Grilled Chicken, were ordered more frequently, indicating their popularity among users.

Order Trends Over Time:
Orders hit the maximum during specific months, pointed to possible preference for different seasons.

Session Duration and Order Completion:
Longer cooking sessions correlated with a higher likelihood of completed orders.

Revenue Distribution:
Dinner contributed the most revenue, followed by lunch and breakfast. This indicates that users are more willing to spend on evening meals.

Demographics:
The majority of the clients were aged between 26 and 35, meaning that they had a big number of orders with greater revenue.

Location analysis indicated that urban areas such as New York and Los Angeles had the highest user density and order counts.

Ratings and Revenue:
Higher session ratings correlated positively with higher spending. Users who rated sessions above 4.5 tended to spend more on average.

Favorite Meals and User Behavior:
Users who selected dinner as their favorite meal had higher engagement rates in both cooking sessions and order completions.

BUSINESS RECOMMENDATIONS

Promote Popular Dishes:
Highlight dishes like Spaghetti and Caesar Salad in marketing campaigns. Consider offering discounts or loyalty points for these dishes to encourage repeat orders.

Optimize Cooking Sessions:
Provide users with clear and concise cooking instructions to reduce session duration while maintaining engagement.

Target Demographics:
Offer campaigns in cities with high user density (e.g., New York, Los Angeles)

Seasonal Promotions:
Launch targeted promotions during peak months like December to capitalize on seasonal trends. Offer holiday-themed meals or bundles to attract more users.

Enhance User Experience:
Focus on improving ratings by collecting feedback from users. Reward highly rated sessions with discounts or free delivery options.

Time-Based Campaigns:
Use time-of-day data to launch campaigns, such as "Breakfast Specials" in the morning or "Dinner Delights" in the evening.

THANK YOU