Report: User Details, Cooking Sessions, and Order Analysis

1. Overview of Data

This report presents insights based on the analysis of three key datasets: **UserDetails**, **CookingSessions**, and **OrderDetails**. These datasets collectively provide information about user demographics, cooking session activity, and order history from a food service platform.

The datasets analyzed are:

- **UserDetails**: Contains information about users such as age, location, meal preferences, and total number of orders.

- **CookingSessions**: Contains data about users' cooking sessions, including dish names, meal types, session duration, and ratings.

- **OrderDetails**: Captures the details of each order placed, including the meal type, dish name, amount, and user ratings.

2. User Analysis

2.1 Data Overview

The **UserDetails** dataset consists of 10 users, and the following fields were observed:

- **Age**: Users have an average age of 31.8 years, with the youngest being 25 and the oldest 42.

- **Location**: Users are spread across various locations, including New York, Los Angeles, Chicago, and others.

- **Favorite Meal**: The dataset highlights users' preferences, with the most popular choices being Dinner and Lunch.

- **Total Orders**: The users' total order count ranges from 5 to 15, with an average of 9.4 orders per user.

2.2 Descriptive Statistics

- **Age**: The average age of users is 31.8, with a standard deviation of 5.27, indicating that most users are within a relatively narrow age range.

- **Total Orders**: The average number of orders placed by users is 9.4, with a minimum of 5 and a maximum of 15 orders, indicating a moderate level of engagement.

2.3 Insights

- **Age Range**: A majority of the users fall within the age range of 25 to 35 years, which could imply a target demographic for marketing campaigns.

- **Meal Preferences**: Dinner is the most preferred meal type, followed by Lunch. This can help tailor meal offerings or suggest promotions during these times.

3. Cooking Sessions Analysis

3.1 Data Overview

The **CookingSessions** dataset contains 16 entries and the following fields:

- **Meal Type**: The sessions are primarily categorized into Dinner, Lunch, and Breakfast.

- **Duration**: The session durations vary from 10 to 45 minutes, with an average of 30.31 minutes.

- **Session Rating**: The ratings range from 4.0 to 5.0, with an average rating of 4.52.

3.2 Descriptive Statistics

- **Duration**: The average session duration is 30.31 minutes, with the longest being 45 minutes and the shortest being 10 minutes.

- **Session Rating**: Most sessions have ratings above 4.0, indicating positive user feedback on cooking sessions.

3.3 Insights

- **Session Length**: Longer sessions (30-45 minutes) tend to have higher ratings, suggesting that users are more satisfied with extended cooking sessions.

- **User Engagement**: Sessions with ratings of 4.5 and above indicate a high level of engagement and satisfaction, which is crucial for the platform's retention strategies.

4. Order Details Analysis

4.1 Data Overview

The **OrderDetails** dataset consists of 16 records and includes:

- **Amount**: The average order amount is $11.1, with a range from $7.0 to $15.0.

- **Order Status**: Most orders are marked as "Completed," with a few being "Canceled."

- **Rating**: The average order rating is 4.36, after handling missing values by filling them with the mean rating of 4.36.

4.2 Descriptive Statistics

- **Amount (USD)**: The average order value is $11.1, with a variance across different meal types. Dinner tends to have higher average amounts compared to Lunch or Breakfast.

- **Order Ratings**: After filling missing values, the order ratings now range from 4.0 to 5.0, indicating generally positive feedback from users.

4.3 Insights

- **Meal Type and Price**: Dinner orders tend to be priced higher, suggesting that customers may be willing to pay more for evening meals.

- **Order Satisfaction**: The ratings, which are mostly above 4.0, reflect customer satisfaction with their orders.

5. Key Observations and Recommendations

- **User Demographics**: The platform has a strong base of young, urban users (aged 25-35). Marketing campaigns should target this group with meal options that suit their schedules (Dinner and Lunch).

- **Cooking Sessions**: The duration and ratings of cooking sessions suggest that users value more time spent in the cooking process, especially when they can rate their experience highly. Consider offering longer or more interactive cooking sessions for engagement.

- **Order Behavior**: The higher spending during dinner hours should be taken into account for pricing strategies. Promotional offers or discounts during lunch hours could help increase order volume in those time slots.

6. Conclusion

The analysis of **UserDetails**, **CookingSessions**, and **OrderDetails** provides valuable insights into user preferences, engagement levels, and satisfaction. The data highlights an opportunity to fine-tune the offerings based on user demographics, meal preferences, and order history. By focusing on the younger demographic and offering tailored promotions during peak meal times, the platform can enhance user experience and boost engagement.