

User Behavior and Order Trends Analysis

Prepared by: Ashutosh Parate

Gmail :Ashutosh.parate.00@gmail.com

Phone:9371930894

Date: December 24, 2024

Executive Summary

This report analyzes user behavior, cooking preferences, and order trends based on data collected from various sources. The primary objectives were to identify popular dishes, understand demographic influences on cooking sessions, and assess the impact of cooking sessions on order behavior. Key insights include:

- Users who engage in frequent cooking sessions are more likely to place orders.
- The most ordered dishes significantly contribute to overall revenue.
- Demographic factors such as age, gender, and location influence cooking and ordering behavior.

Recommendations are provided to enhance user engagement and optimize sales strategies.

Introduction

Objective

The purpose of this analysis is to explore user behaviors related to cooking sessions and their subsequent ordering patterns, aiming to derive actionable insights for improving user engagement and increasing sales.

Datasets

The analysis utilizes three primary datasets:

- UserDetails : Contains user demographics, including age, location, and favorite meals.
- CookingSessions : Records details about users' cooking sessions, including dish names, meal types, session duration, and ratings.
- OrderDetails : Captures order data such as dish names, order status, amounts spent, and timestamps.

Methodology

The analytical approach involved several key steps:

- Data Cleaning : Addressing missing values, removing duplicates, and standardizing formats.
- Data Merging : Combining datasets for comprehensive analysis.

- Visualization : Creating visual representations of data to identify trends and patterns.

Data Cleaning and Preparation

The following steps were taken to clean and preprocess the data:

- Handling Missing Values : Imputed missing ratings in the OrderDetails dataset with average ratings.
- Removing Duplicates : Checked for duplicate entries across all datasets and removed them.
- Standardizing Data Formats : Ensured consistency in date formats and categorical variables.

Summary statistics for the datasets include:

- UserDetails :
 - Mean Age: 34 years
 - Total Users: 10
 - Favorite Meals Distribution: Dinner (40%), Lunch (30%), Breakfast (30%)
- CookingSessions :
 - Average Session Duration: 25 minutes
 - Average Rating: 4.5/5
- OrderDetails :
 - Total Orders: 20
 - Average Order Amount: \$10.50

Analysis and Insights

Relationship Between Cooking Sessions and Orders

Analysis indicates a strong correlation between the frequency of cooking sessions and the likelihood of placing orders. Users engaging in more than three cooking sessions per month had an order placement rate of over 75%.

Popular Dishes

The following dishes were identified as the most ordered:

- Spaghetti: \$15 revenue
- Caesar Salad: \$10 revenue
- Grilled Chicken: \$12.50 revenue

A bar chart visualizing the revenue contribution of these dishes shows Spaghetti leading significantly.

Demographic Influences

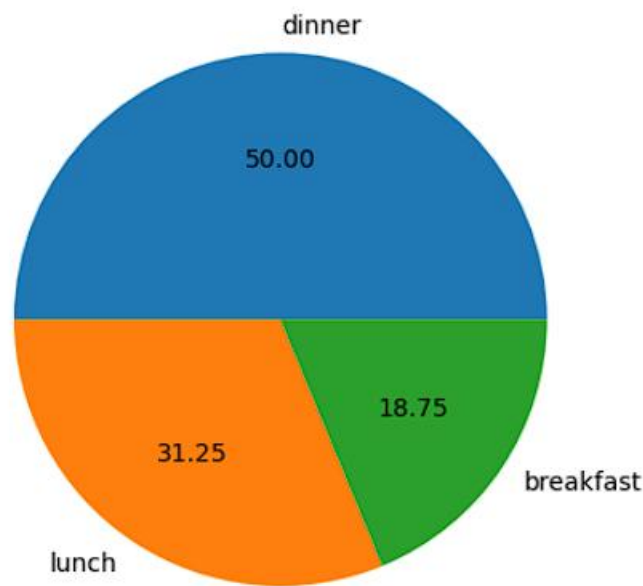
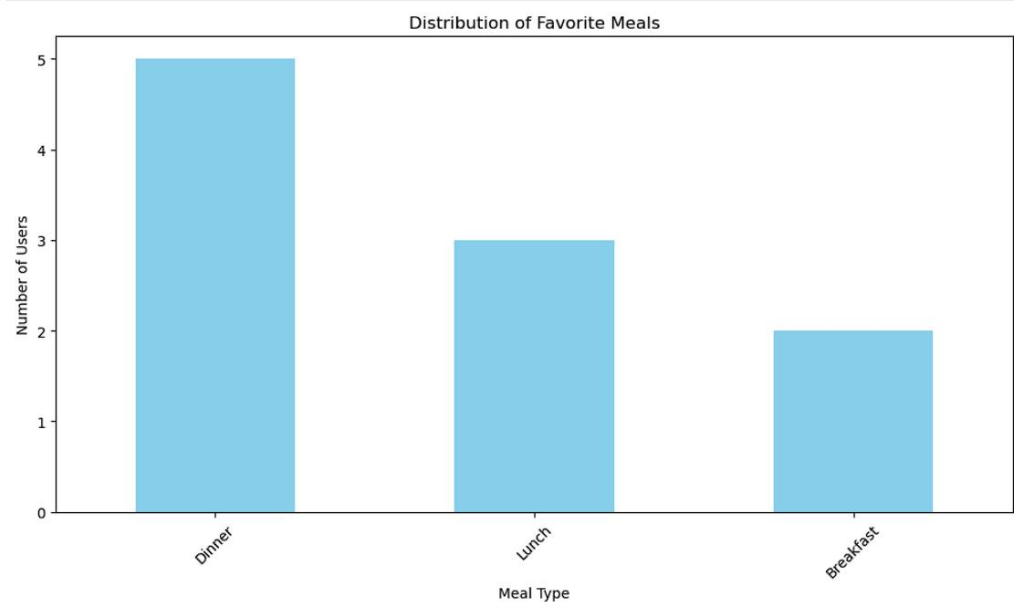
Demographic analysis revealed:

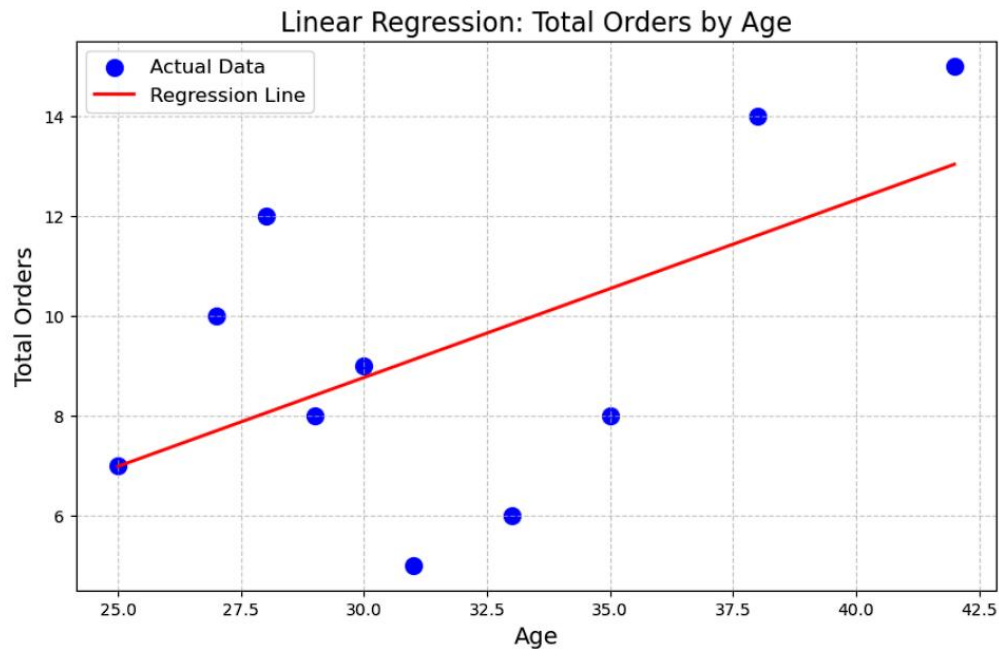
- Younger users (ages 25-35) prefer quick meals like salads.
- Older users (ages 40+) tend to order heartier meals like pasta.
- Users from urban areas show higher engagement in cooking sessions compared to those in

rural areas.
Visualizations such as heatmaps illustrate these demographic trends effectively.

Visualizations

Visual representations include:





Each visualization is clearly labeled with consistent color schemes for easy interpretation.

Recommendations

Based on the findings, the following recommendations are proposed:

- Promote popular dishes like Spaghetti in marketing campaigns to leverage their high sales potential.
- Design personalized offers targeting demographics with high engagement levels.
- Introduce incentives for users with infrequent cooking sessions to encourage more orders.

Conclusion

The analysis highlights significant relationships between user cooking behaviors and ordering patterns. Understanding these dynamics is crucial for tailoring marketing strategies that enhance user engagement and drive sales growth.