Demographic and Behavioural Analysis Report

1. Age Group Preferences
The analysis of user behaviour across age groups reveals the following trends:
• **Breakfast:**
Each age group (<30, 30–40, >40) placed one order for breakfast.
The average spend for breakfast was $7.83, with the highest spend recorded by the >40 age group ($9.00).
• **Dinner:**
Dinner is the most popular meal across all age groups, with 8 total orders.
The 30–40 age group placed the highest number of dinner orders (3), with an average spend of $13.83.
The >40 group also showed significant engagement, placing 4 orders with an average spend of $8.50.
• **Lunch:**
Lunch had fewer orders overall (5), with the <30 and >40 groups placing one order each.
The <30 group recorded the highest average spend on lunch ($13.13), while the >40 group spent $11.00.

Key Insight:
Dinner is the most preferred meal type across all age groups, with consistent engagement and spending. Younger users (<30) show a higher willingness to spend on lunch compared to other meals.
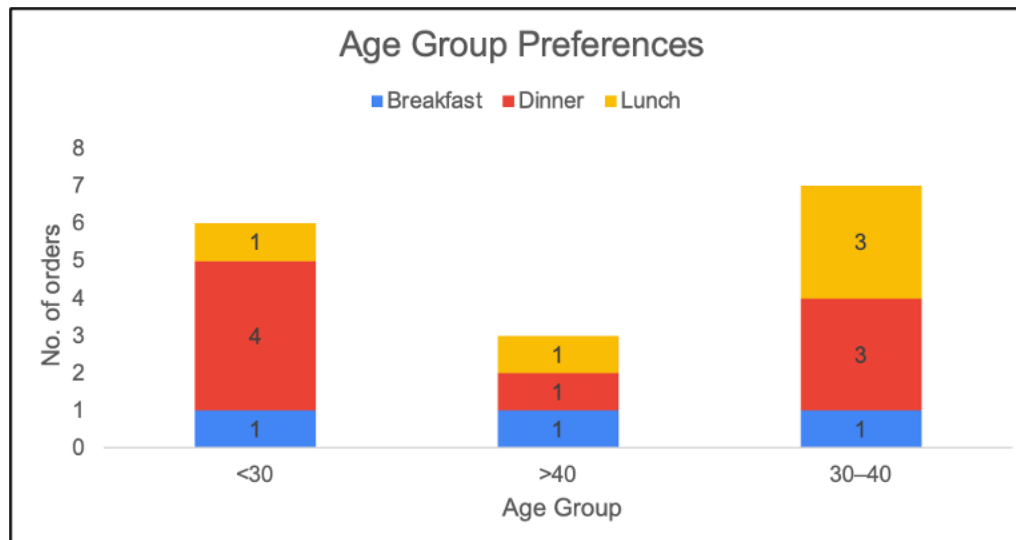
2. Location-Based Trends
The analysis of user behaviour by location and time of day highlights regional preferences:
• **Morning Orders:**
Morning orders were only recorded in Chicago, with an average spend of $8.50.
• **Night Orders:**
Nighttime is the most active period for orders across all locations.
New York leads in spending during the night, with an average order value of $13.50.

Chicago and Seattle follow closely, both recording an average nighttime spend of $12.50.
- **Overall Spending by Location:**
Boston users had the highest overall average spending ($14), followed by New York ($13.50).
Other locations like Los Angeles ($10.33) and San Francisco ($10.75) showed moderate spending patterns.

Key Insight:
Nighttime is the peak ordering period across all locations, with Boston and New York emerging as high-value markets due to their higher average spending.
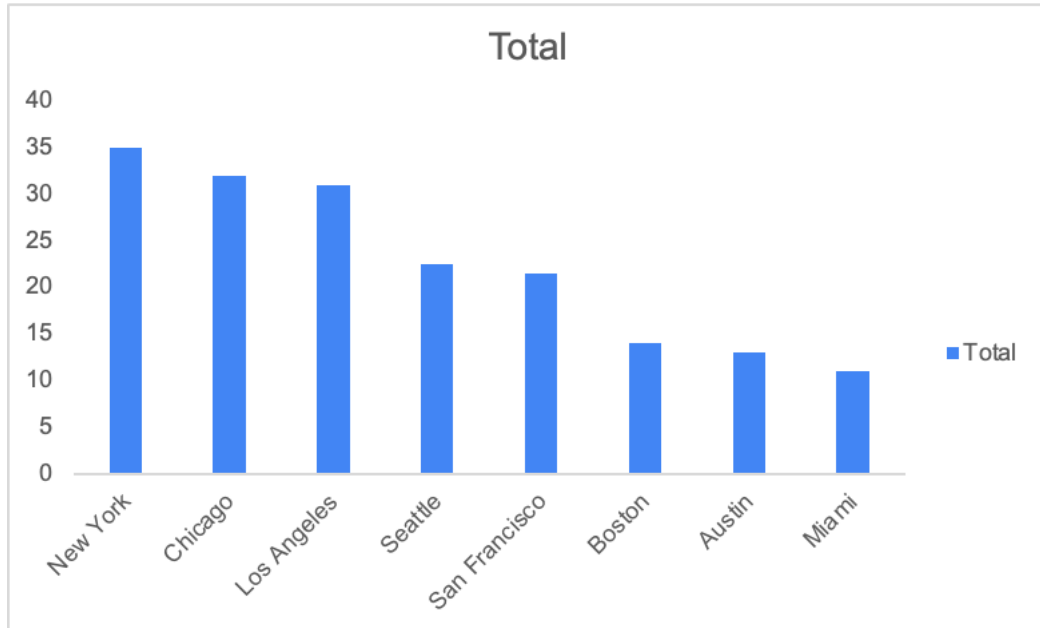
3. Favourite Meal Analysis
The analysis of favourite meal types among users provides insights into overall preferences:
- Dinner is the most popular meal type, accounting for 68 out of 169 total orders (40%).
- Breakfast follows with 59 orders (35%), while lunch is least preferred at just 42 orders (25%).
- Dinner also has the highest user engagement, with participation from 7 unique users compared to breakfast (4 users) and lunch (5 users).

Key Insight:
Dinner dominates as the most favoured meal type in terms of both total orders and user engagement, making it a key focus area for marketing efforts.

4. Session Performance Analysis
This section highlights completed session performance metrics, including order count, session duration, and ratings:
- A total of 14 sessions were completed, with a cumulative duration of 425 minutes and an average session rating of 4.51.
- Longer sessions (e.g., S007 and S014 at 45 minutes each) maintained high ratings (4.6 and 4.8), indicating user satisfaction even during extended durations.

- Shorter sessions (e.g., S010 at just 10 minutes) still achieved good ratings (4.1), suggesting efficient service delivery.

Key Insight:
Session duration does not negatively impact user satisfaction as long as service quality remains consistent.

5. Best Dish Performers
This section ranks dishes based on their total order value and count:
**Top Performers:** Spaghetti ($44) and Grilled Chicken ($43) are the most popular dishes in terms of revenue, each with four orders.
Pancakes and Caesar Salad follow closely with $27 each.
Oatmeal has the lowest performance, generating only $8 from one order.

Figure Explanation:
The line chart compares total order value (blue line) and count of orders (red line). Spaghetti slightly outperforms Grilled Chicken in value but shares the same number of orders. Oatmeal shows a significant drop in both metrics, indicating low popularity.
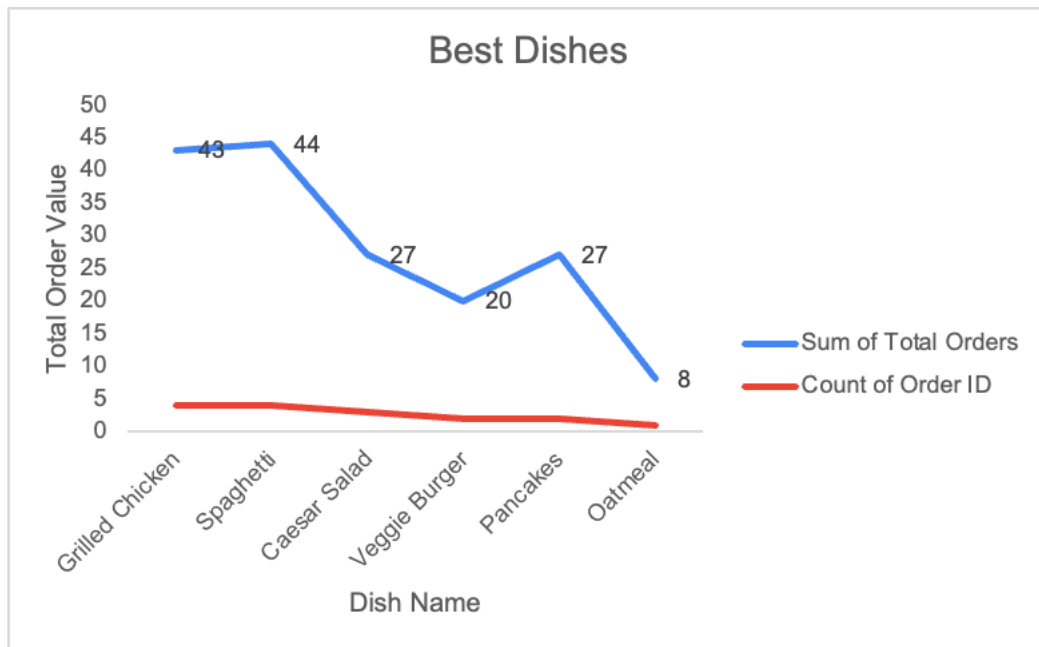
Recommendations

1. **Enhance Dinner Promotions:**
   - Focus on dinner campaigns to capitalise on its popularity across all demographics and locations.
   - Offer loyalty rewards or discounts to further boost engagement during nighttime hours.

2. **Target Younger Users for Lunch Offers:**
   • Develop lunch-specific promotions tailored to younger users (<30), who show higher spending tendencies on lunch compared to other meals.

3. **Expand Morning Options Beyond Chicago:**
   • Introduce breakfast campaigns in high-value locations like Boston and New York to drive morning sales and increase overall engagement.

4. **Focus on High-Spending Locations:**
   • Prioritise Boston and New York for premium offerings or exclusive deals due to their higher average spending patterns at night.

5. **Improve Low-Performing Dishes:**
   • Reevaluate or replace dishes like Oatmeal that show low popularity among users.