**Demographic Analysis of User Behavior**

**Objective**

The primary objective of this analysis is to understand user behavior based on demographic factors such as age and location. The analysis focuses on identifying trends in popular dishes and order patterns to provide actionable business insights.

**Dataset Overview**

The analysis is based on three datasets:

1. **UserDetails**: Contains demographic information (e.g., age, gender, location).
2. **CookingSessions**: Details of user cooking sessions.
3. **OrderDetails**: Information about user orders, including dish names and quantities.

**Analysis and Insights**

**1.Popular Dishes**

**Spaghetti 4**

**It had been ordered 14 times in breakfast time and 12 times in dinner time.**

**Grilled Chicken 4**

**Spaghetti and grilled chicken are the highest ordered dishes among dishes.**

**2.Age-Wise Analysis**

* Users in the age group 26-35 placed the highest number of orders.
* **Visualization:** A line chart depicting the number of orders by age shows a peak in the 26-35 age group.

**3. Location-Based Analysis**

* Popular dishes vary by location:
  + New York: Spaghetti
  + Los Angeles: Spaghetti
  + Chicago: Spaghetti
* **Visualization:** A bar chart showcasing orders by location and a heatmap of dish preferences across locations.

**Combined Demographic Analysis**

* Users aged 26-35 in New York placed the highest number of orders.
* **Visualization:** A heatmap shows the correlation between age and location for order patterns.

**Key Insights**

1. **Top Performers**:
   * Spaghetti is the most popular dish across all demographics with a rating of 5.

2.**Location-Specific Trends**:

* New York has the most diverse preferences, followed by Los Angeles and Chicago.

**Recommendations**

**Location-Specific Promotions:**

* **Offer city-specific discounts on popular dishes (e.g., Spaghetti in New York).**

 **Menu Customization**:

* Introduce more mixed dishes to cater to users aged 26-30.