**Scenario: Analyzing Customer Orders to Identify Key Factors for Improving Retention.**

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# Step 1: Understand the Business Goal

**Business Case:**

A Food Delivery company wants to analyze customer orders. The goal is to identify key factors to increase customer retention.

**Key Objectives:**

1. Identify loyal, high-value customers based on their order frequency and spending habits.
2. Figure out which types of food (cuisine or meal type) are the most popular and bring in the most revenue.
3. Analyze when people tend to place their orders—looking at peak hours and off-peak times.
4. Offer recommendations or strategies that could help improve customer retention, such as personalized promotions or targeted marketing.

# **Step 2: Questions a Data Analyst Would Ask s Client Responses**

|  |  |
| --- | --- |
| **Question** | **Client Response** |
| **What key metrics are most important for measuring customer retention?** | We're focusing on customer lifetime value, how often they order, and whether they place repeat orders. |
| **Do you have historical order data?** | Yes, we have data going back 2 years |
| **What kind of customer information do you collect?** | We gather basic info like name, age, gender, location, and order history. |
| **Do you track which types of meals or cuisines are most popular?** | Yes, we categorize orders by cuisine (e.g., Italian, Chinese) and also by specific meals (e.g., pizza, burrito). |
| **Do you capture delivery times or peak ordering hours?** | Absolutely, we track delivery times and order timestamps to understand customer behavior better. |

**Step 3: Sample Data Collection**

**Customer Information Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Customer\_id** | **Name** | **Age** | **Gender** | **Location** |
| 101 | Varadha Raja Mannar | 26 | Male | Khansaar |
| 102 | Devaratha | 27 | Male | Assam |
| 103 | Obulamma | 42 | Female | Uttar Pradesh |
| 104 | Rudra Mannar | 30 | Male | Khansaar |

**Customer Orders Table**

|  |  |  |
| --- | --- | --- |
| **Customer\_id** | **Order\_id** | **Feedback** |
| 101 | 202 | Good |
| 102 | 202 | Average |
| 104 | 203 | Good |
| 103 | 201 | Satisfactory |

**Orders Information Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Order\_id** | **Dish\_type** | **Restaurant** | **Price** |
| 201 | Biryani | Shahgouse | 349 |
| 202 | Mandi | Gismat | 899 |
| 203 | Meals | Kritunga | 79 |
| 204 | Desserts | Skyla | 120 |

# **Step 4: Next Steps**

Once the business goal and data requirements are clear, the next steps involve:

1. **Data Cleaning:** We’ll start by making sure the data is clean—getting rid of duplicates, filling in any missing information, and fixing any formatting errors.
2. **Exploratory Data Analysis (EDA):** We'll dig into the data, looking at patterns in customer behavior, which types of meals are the most popular, and when customers tend to place their orders.
3. **Feature Engineering:** Next, we’ll create new insights by generating useful features, like how often a customer orders or how much they typically spend per order.
4. **Building Insights:** Finally, we’ll use all of this information to come up with actionable recommendations—whether it's targeting specific customer groups with promotions or identifying the best times to push certain menu items to boost retention.