**Hackathon Challenge: In-Depth Sales Analysis Dataset Columns:**

● **Store ID:** Unique identifier for each store.

● **Store Name:** Name of the store.

● **Area:** Geographic area where the store is located.

● **ASM:** Area Sales Manager responsible for the store.

● **DASM:** Deputy Area Sales Manager responsible for the store.

● **SalesMan:** Salesperson handling the sales for the store.

● **Customer No:** Unique identifier for each customer.

● **Order Number:** Unique identifier for each order.

● **Order Date:** Date when the order was placed.

● **TimeStamp:** Specific time when the order was placed.

● **Ordered Value:** Total value of the products ordered.

● **Delivered Value:** Total value of the products delivered.

● **Sugar:** Value of sugar products in the order.

● **FMCG:** Value of fast-moving consumer goods in the order.

● **Delivered Amt without Sugar & FMCG:** Value of delivered products excluding Sugar and FMCG.

**Challenge Questions:**

**1. Optimal Sales Month and Revenue Calculation**

● **Objective:** Determine which month yielded the highest total sales revenue. Compute the total revenue generated in that month. Consider all nuances such as varying quantities of products sold in each order.

**2. Top Performing Area in Sales Volume**

● **Objective:** Identify the area that recorded the highest total ordered value. Aggregate sales data based on the area information derived from the dataset. Ensure you handle potential issues such as areas with similar names or formatting inconsistencies.

**3. Optimal Time for Display Advertisements**

● **Objective:** Analyze the data to suggest the best time of day to display advertisements to maximize the likelihood of a customer making a purchase. Consider patterns in order times and calculate the optimal time window for advertising. Justify your

recommendation with relevant data insights.

**4. Frequently Sold Product Combinations**

● **Objective:** Investigate which products (Sugar and FMCG) are most frequently purchased together. This involves analyzing orders to find common pairings of products. Focus on identifying patterns and the significance of these product combinations in driving sales.

**5. Best-Selling Product and Hypothesis on Popularity**

● **Objective:** Determine which product category (Sugar or FMCG) had the highest total ordered value. Provide a reasoned hypothesis for why this product category might be the top seller, taking into account factors such as price, necessity, or complementary products.

**BONUS QUESTION ➖>**

-->It will be judged between all the participants….!)

Q.)Find the best insight in the dataset that is both IMPACTFUL and UNIQUE.?