## Objective

Assess the effectiveness of various marketing campaigns to optimize future marketing strategies and budget allocations.

# Requirements

- 1. Campaign Metrics Calculation
  - Conversion Rate
  - Cost per Click (CPC)
  - Cost per Conversion (CPA)
  - Return on Ad Spend (ROAS)

# 2. Channel Comparison

- Compare campaign performance across channels based on metrics such as CTR, conversion rate, CPC, and ROAS.
- Highlight the top-performing channels based on conversion rate and ROAS.
- Identify channels with high costs but low ROAS to review and adjust budget allocations.

## 3. Demographic Analysis

- Segment campaign performance by demographics, including age, gender, and location, to identify high- and low-performing segments.
- Analyze which demographic groups respond best to specific channels or campaign types.
- o Provide recommendations for future targeting based on demographic insights.

### 4. Time-Based Analysis

- Monitor campaign performance over time (weekly or monthly) to identify trends or seasonal peaks.
- Examine if certain times of the year yield higher conversions or better ROAS.

### 5. Dashboard Requirements

- KPIs Summary: Include total impressions, total clicks, total conversions, total spend, total revenue, average CTR, and ROAS.
- Campaign Performance Overview: Create bar or line charts comparing key metrics (CTR, conversion rate, ROAS) across campaigns.
- Channel Performance Breakdown: Use visualizations (e.g., pie or stacked bar chart) to show the distribution of total spend, impressions, and conversions by channel.
- Demographics Insights: Display charts showing the breakdown of conversions and revenue by age, gender, and location.
- Trend Analysis: Implement a line or area chart illustrating campaign metrics over time (impressions, clicks, conversions).

### **Expected Insights**

• **Top-Performing Campaigns and Channels:** Identify which campaigns and channels generate the most conversions and revenue relative to the budget.

- **Demographic Insights:** Determine which customer demographics are most responsive to the campaigns.
- Seasonal or Temporal Trends: Identify patterns in campaign success related to specific times of the year.
- **Budget Allocation Recommendations:** Suggest reallocating funds to high-performing channels and campaigns with a high ROAS while reducing spend on underperforming segments.