

# Domain Knowledge Document

## Meta Ads Performance Analytics

### 1. Business Context

Meta advertising platforms such as Facebook and Instagram generate large volumes of event-based data including impressions, clicks, engagements, and purchases. This dataset simulates real-world Meta Ads data and is designed to support marketing performance analysis, campaign optimization, and ROI measurement.

### 2. Dataset Overview

The data captures advertising interactions across campaigns, ads, and users. It supports analysis of campaign effectiveness, funnel performance, audience behavior, and budget efficiency.

### 3. Data Model Structure

The solution follows a star schema design:

- Fact Table: ad\_events – stores impressions, clicks, shares, comments, and purchases.
- Dimension Tables: ads, campaigns, and users – provide creative details, budgets, targeting, and demographics.

### 4. Table-Level Purpose

ad\_events: Captures every interaction between a user and an ad and acts as the foundation for all KPIs and funnel metrics.

ads: Stores creative attributes, platform information, and targeting criteria to evaluate creative and platform performance.

campaigns: Stores campaign timelines and budgets to support cost, pacing, and ROI analysis.

users: Stores demographic and geographic attributes to enable audience segmentation and targeting effectiveness analysis.

### 5. Analytical Use Cases

- Funnel analysis (Impressions → Clicks → Purchases)
- Campaign and platform benchmarking
- Creative performance comparison
- Audience segmentation and geo-performance analysis
- Budget utilization and marketing ROI evaluation

### 6. Business Value

This domain structure enables marketing teams to understand what drives engagement and conversions, identify high-performing campaigns and audiences, and make informed budget optimization decisions.