Business Requirements Document (BRD)

Meta Ad Performance Analysis

Business Objective

The business needs a **performance tracking report** for advertising campaigns running on **Facebook and Instagram**.
The report will provide visibility into campaign reach, engagement, conversions, and budget utilization.
This will enable the marketing team to:

- Identify the most effective platform (Facebook vs Instagram).

- Track campaign ROI and optimize budget allocation.

- Understand audience engagement patterns.

Scope of the Report

- **In Scope**:

    o Campaigns running on **Facebook and Instagram** only.

- **Out of Scope**:

    o Other platforms (Messenger, Audience Network).

    o Organic engagement (only **paid ads** will be included).

KPIs & Definitions

KPI	Definition	Formula	Example Use
Impressions	Number of times ads were displayed.	Count of event_type = Impression	Measure reach
Clicks	Number of times users clicked ads.	Count of event_type = Click	Measure engagement intent
Shares	Number of times ads were shared.	Count of event_type = Share	Viral engagement
Comments	Number of user comments on ads.	Count of event_type = Comment	User sentiment & feedback

KPI	Definition	Formula	Example Use
Purchases	Number of purchases made after seeing ads.	Count of event_type = Purchase	Conversions
Engagements	Total interactions (Clicks + Shares + Comments).	Clicks + Shares + Comments	Engagement volume
CTR (Click Through Rate)	% of impressions that resulted in clicks.	(Clicks ÷ Impressions) × 100	Ad effectiveness
Engagement Rate	% of impressions that resulted in engagements.	(Engagements ÷ Impressions) × 100	Overall ad appeal
Conversion Rate	% of clicks that resulted in purchases.	(Purchases ÷ Clicks) × 100	Funnel efficiency
Purchase Rate	% of impressions that resulted in purchases.	(Purchases ÷ Impressions) × 100	Conversion from reach
Total Budget	Total spend allocated to campaigns.	Sum of campaigns.total_budget	Cost analysis
Avg. Budget per Campaign	Average budget allocation per campaign.	Total Budget ÷ Campaign Count	Budget distribution

1. Target Gender – Donut Chart

A **donut chart** will visualize performance split by **target gender** (from the ads table).

- The metric displayed (e.g., Impressions, Clicks, Purchases) will change dynamically via the parameter.

- Purpose: Identify which gender segment contributes most to the selected metric.

2. Target Age Group – Bar Chart

A **bar chart** will show engagement across **age groups** defined in the ads table.

- Each bar will represent one age group.

- The metric displayed will switch dynamically.

- Purpose: Highlight which age group is most responsive to campaigns.

3. Country – Map

A **map visualization** will display performance by **country** (from the users table).

- Bubble size or color intensity will represent the selected metric.

- Purpose: Provide a geographic view of campaign reach and engagement.

4. Calendar Month – Calendar Heat Map

A **calendar heat map** will plot performance at the **monthly level**, based on the timestamp field in ad_events.

- Darker shades will indicate higher activity.

- Purpose: Detect seasonal trends, peak ad months, and low-activity periods.

5. Weekly Trend – Stacked Column by Ad Type

A **stacked column chart** will display weekly performance trends.

- X-axis → Week number (from the Date Table linked to ad_events).

- Stacks → Different ad_type values (from the ads table).

- Y-axis → Selected metric.

- Purpose: Compare ad type contributions over weeks.

6. Hourly Trend – Area Chart

An **area chart** will show activity by **hour of day** (from ad_events[time_of_day]).

- X-axis → Hour of the day (0–23).

- Y-axis → Selected metric.

- Purpose: Understand user activity patterns throughout the day.

7. Ad Type – Matrix

A **matrix visualization** will show the selected metric across **ad types** and possibly break down further by **platform (Facebook vs Instagram)**.

- Rows → Ad Types.

- Columns → Platforms or other campaign dimensions.

- Values → Selected metric.

- Purpose: Compare performance across ad formats and platforms side by side.