# Social Media Analytics Dataset Documentation

## 1. Introduction:

This document outlines the structure, key features, and intended use of the Social Media Analytics dataset, designed for creating insightful dashboards in Tableau. The dataset consists of over 5,000 cleaned entries to help analyze social media performance across various platforms.

## 2. Objective:

To provide a comprehensive dataset that allows data analysts to measure and visualize key social media metrics, including engagement rates, audience demographics, post performance, and campaign effectiveness.

## 3. Key Pain Points Addressed:

- **Fragmented Data:** Consolidates data from multiple social media platforms.

- **Inconsistent Metrics:** Standardizes engagement and performance metrics.

- **Complex Audience Insights:** Breaks down demographics for better targeting.

- **Performance Tracking:** Facilitates comparison across posts, campaigns, and timeframes.

## 4. Dataset Overview:

- **Total Records:** 5,000+ entries

- **Data Format:** CSV / Excel

- **Cleaned Dataset:** Free from null values, duplicates, and inconsistencies

## 5. Dataset Fields:

## A. Basic Post Information:

1. **Post ID** - Unique identifier for each post (e.g., P001, P002)

2. **Date** - Date when the post was published

3. **Time** - Time of publication

4. **Platform** - Social media platform (Instagram, Facebook, Twitter, LinkedIn)

5. **Content Type** - Type of content (Image, Video, Text, Story, Reel)

6. **Post Caption** - Text description of the post

7. **Hashtags Used** - Number of hashtags in the post

## B. Engagement Metrics:

8. **Likes** - Number of likes

9. **Comments** - Number of comments

10. **Shares** - Number of shares

11. **Saves** - Number of times saved

12. **Impressions** - Total views of the post

13. **Reach** - Number of unique users who saw the post

14. **Engagement Rate (%)** - ((Likes + Comments + Shares) / Reach) * 100

## C. Audience Metrics:

15. **Followers at Post Time** - Number of followers at the time of posting

16. **New Followers Gained** - Followers gained after the post

17. **Demographic Region** - Region (North America, Europe, Asia, etc.)

18. **Age Group** - 18-24, 25-34, 35-44, etc.

## D. Campaign Information (Optional):

19. **Campaign Name** - Name of the marketing campaign

20. **Ad Spend (USD)** - Budget allocated for sponsored posts

## E. Performance Indicators:

21. **Click-Through Rate (CTR) (%)** - (Link Clicks / Impressions) * 100

22. **Conversion Rate (%)** - (Conversions / Clicks) * 100

## 6. Data Cleaning Process:

- Removal of duplicate entries

- Standardization of date and time formats

- Validation of numeric fields (likes, comments, etc.)

- Ensured consistency in platform and content type fields

## 7. Use Cases:

- **Engagement Trend Analysis:** Identify high-performing posts over time

- **Audience Demographics:** Understand which age groups engage the most

- **Campaign Performance:** Measure ROI of marketing campaigns

- **Platform Comparison:** Compare performance across social media channels

## 8. Recommendations for Tableau Dashboards:

- **Engagement Dashboard:** Likes, comments, shares, engagement rates

- **Audience Insights Dashboard:** Followers by region, age group

- **Campaign Analysis Dashboard:** Ad spend vs conversions

- **Platform Performance Dashboard:** Comparing metrics across platforms

## 9. Future Improvements:

- Include sentiment analysis of post captions

- Add influencer-specific metrics (collaborations, influencer reach)

- Time-series forecasting for predictive analytics

## 10. Conclusion:

This dataset offers a well-structured, cleaned, and versatile resource for social media analytics, enabling data-driven decisions and effective visualization in Tableau.