**Twitter Analytics Dashboard Report**

1. **Introduction**

This report analyses tweet engagement metrics with a focus on identifying key patterns for optimizing social media strategies. Key metrics include retweets, likes, impressions, app opens and engagement rate comparisons.

1. **Background**

This analysis investigates tweets performance through targeted filters: posting times, date and day filters, engagement rates, and the influence of app opens on engagement. The study aims to uncover patterns that drive higher engagement on twitter.

1. **Learning Objectives**
2. Identify tweets with the highest engagement (sum of retweets and likes).
3. Compare engagement for tweets with app open versus without app open.
4. Highlight tweets in the top 10% for engagement rates.
5. **Activities and Tasks**

The following tasks were carries out to complete the analysis:

* **Data Filtering and Preparation:** Applied filters in Power BI to sort tweets by criteria such as time of day, odd dates, even impressions, weekdays or weekends, chart visibility on specific hours, and word count limits. This ensured that only tweets meeting the specified conditions were included in each analysis.
* **Building Visualization:**
  + **Top 10% Engagement Rate Tweets:** Built a chart to display tweets in the top 10% by engagement rate that had over 50 likes, ensuring they were posted on weekdays, implemented a time-based visibility filter to control the visibility of chart on specified hours and meeting specified word count conditions.
  + **Top 10 Tweets by Retweets and Likes:** Developed a chart to display the tweets with the highest sum of retweets and likes for weekend posts, displayed by Id and filtered by word count, even number impression, tweets odd date and implemented time-based visibility filter. **Note: As there is no user profile column in the data, IDs are shown in the legend to represent each post.**
  + **App Opens vs. Without App Opens Engagement Rate Comparison:** Created a chart comparing engagement rates for tweets with and without app opens, focusing on weekday tweets posted within 9 am and 5 pm and meeting specified impression, date, and word count conditions. Implement the time-based visibility filter to control the visibility of chart between 12 pm to 6 pm. **Note: The analysis for tweets with app opens is not meeting the specific criteria, as no tweets with app opens satisfy the combination of time frame, impressions, date, and word count restrictions, Therefore, the comparison will focus on tweets without app opens for the given time frame and conditions**. Added card visuals to provide summary of key metrics, such as: Breakdown of app open count and those without app open, created measures for tweets meeting criteria and those not meeting criteria. The count of without app open and tweets meeting criteria is same.
* Developed 12 Power BI visuals for tweet analysis, including pie chart for hashtag clicks, URL clicks, and user profile clicks, alongside visuals for likes, retweets, tweet count by week, media views count, tweet count, impressions, engagement rate, URL clicks by tweet, media engagement vs. media views, impression by week, providing actionable insights.
* **Data Analysis:** Analysed engagement patterns across all charts to draw comparisons, identify trends, and deduce best practices for tweet timing and content structure.

1. **Skills and Competencies**

Developed skills in data filtering, Power BI visualization, and data interpretation to provide insights into tweet engagement.

1. **Feedback and Evidence**

Feedback highlighted the need for tailored engagement strategies based on tweet timing, content length, and interaction types. Power BI charts provided visual evidence of patterns and high performing content.

1. **Challenges and Solution**

**Challenges:**

* Complexity of filtering criteria and time-based visibility conditions.
* Calculating dynamic engagement rate percentiles for top performing tweets.

**Solutions:**

* Used intermediate filters for primary criteria (e.g., weekday filtering) before applying detailed filters.
* Calculated percentile dynamically with PERCENTILE.INC for engagement rate analysis.

1. **Outcomes and Impact**

Insights gained from this analysis are expected to improve social media strategy. The analysis showed that tweets with fewer than 30 words tend to receive higher engagement.

1. **Conclusion**

This analysis provides insights into tweet timing, app opens, and word count for optimizing engagement. Encourage app opens to drive higher engagement.