Internship Report - Real-Time Twitter Analytics Dashboard

Introduction

This report outlines the work completed during the internship on building a Real-Time Twitter Analytics Dashboard using Power BI. The tasks involved data filtering, chart creation, time-based visuals, and advanced DAX usage.

Background

The project was based on analyzing Twitter data provided in an Excel format, focusing on tweet performance metrics such as likes, impressions, retweets, and engagements.

Learning Objectives

- Learn to use Power BI for real-time analytics.
- Understand DAX for dynamic filtering and calculated columns.
- Apply time-based logic to show/hide visuals.
- Gain experience in building professional dashboards.

Activities and Tasks

- Task 1: Chart with top 10% engagement rate tweets, filtered by time, likes, character count, and weekday.
- Task 2: Bar chart for top 10 tweets by retweets + likes, filtered by even impressions, odd date, and time range.
- Task 3: Dual-axis chart for media views & media engagements, filtered by character count > 30, exclusion of 'H', even impressions, and time range.

Skills and Competencies

- Power BI Desktop proficiency
- Data modeling and transformations
- DAX (Data Analysis Expressions)

- Visualization design
- Time intelligence and advanced filtering

Feedback and Evidence (screenshots of visuals or filters)

Screenshots of visuals and filters were captured during development and stored locally in the GitHub repository as per internship requirements.

Challenges and Solutions

- Challenge: Dataset lacked tweets with < 30 characters.
 - Solution: Displayed a dynamic message when no data matched filters.
- Challenge: Time-based filtering in visuals.

Solution: Used DAX measures and visibility controls to show/hide visuals based on system time.

Outcomes and Impact

Successfully built an interactive dashboard with logic-based filtering, improving my understanding of Power BI and real-time data visualization.

Conclusion

This internship provided hands-on experience with Power BI and sharpened my data visualization, filtering, and dashboarding skills. It reinforced my ability to solve practical problems using DAX and Power BI functionalities.