Internship Report – Real-Time Twitter Analytics Dashboard (Power BI)

# 1. Introduction

This report outlines the work completed during my internship with NullClass, focused on building a real-time Twitter analytics dashboard using Power BI. The goal was to transform raw tweet data into insightful visualizations with specific filtering and engagement logic.

# 2. Background

Social media analytics is a powerful tool in the digital world. Twitter data holds valuable insights that can help understand user behavior, content reach, and engagement. This internship required leveraging Power BI to visualize and analyze Twitter metrics through data transformation and DAX logic.

# 3. Learning Objectives

- Gain hands-on experience with Power BI and Power Query

- Understand and apply DAX functions for calculated insights

- Design meaningful and dynamic dashboards

- Follow real-world business requirements to build data visuals

- Learn GitHub for version control and project tracking

# 4. Activities and Tasks

I completed 10 structured tasks, each with unique objectives:

- Pie charts, bar charts, and line charts

- Dynamic filtering using time and content-based conditions

- Data transformation using Power Query

- Writing DAX for metrics like engagement rate, visibility logic, etc.

- Implementing real-time visibility logic (e.g., showing charts only between 3 PM–5 PM IST)

# 5. Skills and Competencies

- Power BI: Visuals, Filters, Report View, Format Pane

- Power Query: Data cleaning, unpivoting, transforming time zones

- DAX: Measures, calculated columns, logical expressions (IF, MOD, HOUR)

- GitHub: Project management, committing .pbix and README files

- Analytical Thinking: Interpreting data to meet specific business goals

# 6. Feedback and Evidence

- All 10 tasks were completed with detailed logic and visualizations.

- Each task was verified with accurate filters and chart behavior.

- Files and documentation were committed to the GitHub repository:

GitHub Link: https://github.com/Apurupachandramukhi/TwitterAnalyticsDashboard

- Internship report submitted per format.

# 7. Challenges and Solutions

Challenge: Parsing DateTime formats in Power Query

Solution: Used custom logic and regional conversion

Challenge: Controlling visual visibility over time

Solution: Created HourIST and ShowGraph logic using DAX

Challenge: Missing columns after transformations

Solution: Referenced original tables and rebuilt data structure

Challenge: Filtering specific characters in tweets

Solution: Used case-sensitive Text Filters in Power Query

# 8. Outcomes and Impact

- Built a fully functional Twitter analytics dashboard

- Practiced real-time reporting scenarios and filtering conditions

- Enhanced data storytelling through structured visualizations

- Grew confidence in Power BI for enterprise-level analytics

# 9. Conclusion

This internship allowed me to apply my technical skills to solve real-world data problems using Power BI. I’ve gained practical experience with dashboards, DAX, and GitHub workflows, which I will carry forward into future data analytics roles.