NULLCLASS INTERNSHIP REPORT
ON
PROJECT TITLE: BUILD REAL-TIME TWITTER(X) ANALYTICS DASHBOARD - POWER BI

Working as a Data Analyst Intern for the NullClass

From 18-06-2025 to 18-09-2025

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1. Introduction

This report highlights my internship experience focused on building a real-time Twitter analytics dashboard using Power BI. The goal of this project was to analyze user engagement across various tweet metrics by designing interactive visualizations and applying dynamic filters using DAX and Power Query.

2. Background

The internship was a practical extension of my academic knowledge in Artificial Intelligence and Data Analytics. where I was assigned to work on real-time Twitter data. The primary task was to build a Power BI dashboard that visualized performance metrics like clicks, likes, retweets, impressions, and engagement rates.

3. Learning Objectives

- Understand how to transform raw Twitter data into business insights

- Learn DAX for custom filtering, logic building, and measure creation

- Build and configure Power BI visuals like pie charts, scatter plots, and dual-axis charts

- Apply time-based, content-based, and metric-based filtering for real-time dashboards

- Use Power Query to clean and process tweet content dynamically

4. Activities and Tasks

During the internship, I undertook the following activities and tasks:

• Proficiently collected and cleaned Twitter engagement data for analysis.
• Skilfully created visualizations to effectively display tweet engagement metrics.
• Developed and applied DAX formulas for tweet filtering and categorization.
• Implemented dynamic time-based controls for graph visibility.
• Optimized Power BI dashboards to enhance performance and responsiveness.

5. Skills and Competencies

Technical Skills:

- Power BI dashboard creation

- DAX for calculated columns and measures

- Power Query for text processing

- Conditional filtering (time, word count, impressions, character length)

- Real-time tweet interaction analysis

Soft Skills:

- Logical thinking and attention to detail

- Task breakdown and time management

- Reporting and presenting results with clarity

- Handling blank or conflicting outputs by debugging filters

6. Feedback and Evidence

I received appreciation for:

- Structuring each visual with clarity and purpose

- Navigating complex multi-layered filter logic

- Creating a user-friendly and readable dashboard

- Efficient use of GitHub to back up and share .pbix files

7. Challenges and Solutions

Challenge	Solution
Charts turning blank due to strict filters	Applied progressive testing and adjusted filter logic
Removing specific letters from tweet text	Used Power Query with List.Select and Text.Contains
Managing multiple time windows in visuals	Created custom DAX time filter columns
Testing engagement rate logic on filtered data	Created temporary calculated columns for verification

8. Outcomes and Impact

This internship allowed me to:

- Develop real-world data analytics dashboards

- Sharpen DAX and Power Query skills

- Learn how to troubleshoot and refine filters for cleaner outputs

- Create a project I can showcase on GitHub and my resume

- Gain confidence in working with social media data for insights

9. Conclusion

The internship has been a valuable step in my journey toward becoming a data analyst. It helped me gain both technical and analytical experience while deepening my understanding of user engagement through data. I now feel more confident in using Power BI to turn raw data into meaningful stories and insights.