**INTERNSHIP REPORTS**

**Internship Program – NULLCLASS**

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**Project Title: Real-Time Twitter Analytics Dashboard – Power BI**

**INTRODUCTION**

When I first began my internship at NULLCLASS, I wasn’t sure what to expect. Unlike a classroom, there were no ready-made notes, no one telling me exactly what to do, and no step-by-step instructions. What I did have was a project: to build an advance Twitter Analytics Dashboard using Power BI.

The idea was simple on paper – take raw Twitter data and turn it into something that could provide insights for decision making. But the journey of getting there was full of small challenges, trial and error, and a lot of learning.

This report is a reflection of my internship experience – what I did, what I learned, where I struggled, and how I grew both technically and personally.

BACKGROUND

Social media is everywhere today, and platforms like Twitter are not just about conversations but also about data. Every like, reply, retweet, or click becomes a signal of how engage with content. Business depend heavily on analysing this engagement to improve their strategies.

My internship project revolved around exactly this – taking Twitter data (from a dataset provided) and analysing it using Power BI. The goal was to just make colorful charts but to apply business rules and logic to the data so that the results actually made sense in a real-world scenario.

**LEARNING OBJECTIVES**

Before starting , I set some goals for myself. I wanted to :

1. Get better at Power BI :- not just basics, but also DAX, Power Query, and advanced visuals.
2. Understand Twitter data :- learn what metrics like impressions, engagement, replies, and clicks actually mean in context.
3. Improve problem-solving :- since there was no mentor like impressions, engagement, replies, and clicks actually mean in context.
4. Build Confidence :- the ability to say , “Yes, I can take raw data and turn it into a professional looking dashboard “ .

**TASKS AND ACTIVITIES**

I was given six tasks during the internship. Each task had conditions that made me think critically about how to filter, calculate, and visualize data. Here’s how I worked on them :

**Task 1 – Scatter Chart Analysis**

This was probably the most complex and interesting task.

**What I had to do :**

* Create a scatter plot of media engagement vs. media views.
* Only show tweets that had more than 10 replies.
* Only consider tweets posted between 6PM and 11 PM IST
* Only show tweets on odd – numbered dates.
* Only include tweets where the word count was more than 50.
* Finally, highlight tweets where the engagement rate was above 5%.

**What I learned :**

This task forced me to combine multiple conditions at once. It wasn’t just about dragging and dropping data on a chart. I had to :

* Create calculated columns (like word count and odd/even dates).
* Use DAX to avoid division-by-zero errors when calculating engagement rate.
* Think carefully about how filters interact with each other .

When I finally saw the scatter chart correctly highlighting only the valid tweets, I felt a huge sense of achievement.

**Task 2 –Clustered Bar Chart**

**What I had to do :**

Compare the sum of URL clicks, Profile clicks, and hashtag clicks by categories of tweets (with media, with links, with hashtags).

**What I learned:**

This task made me realize how important categorization is. A single dataset can be grouped indifferent ways depending on what the business wants to see . Here, the same tweets could belong to more than one category, so I had to carefully design the chart.

**Task 3 –Top 10 Tweets by Engagement**

**What I had to do :**

List the top 10 tweets with the highest engagement, but only for weekdays and only if impressions crossed a certain threshold.

**What I learned:**

This was all about ranking. I used DAX to calculate total engagement and then sorted tweets. It was satisfying to see a clean , ranked table of tweets instead of messy raw data.

**Task 4 – Monthly Engagement Trends**

**What I had to do:**Build a line chart to show monthly average engagement rate, separating tweets with media from those without.

**What I learned:**This taught me time-series analysis. I also struggled initially with handling time-based filters (only showing certain hours), but with trial and error, I figured it out.

**Task 5 – Comparative Analysis of Media Engagements**

**What I had to do:**Compare replies, retweets, and likes for tweets with media engagements greater than the median value.

**What I learned:**This was the first time I used statistical functions like median inside Power BI. It showed me how Power BI isn’t just about charts, but also about real analytics.

**Task 6 – App Opens vs. No App Opens**

**What I had to do:**Compare the engagement rate of tweets with app opens vs. those without.

**What I learned:**A small but important task — it showed me how tiny details (like whether a tweet triggered app opens) can change how we interpret overall engagement.

**CHALLENGES I FACED :**

This internship wasn’t smooth sailing. Some of the challenges I faced:

* **Time conversions:** The dataset had timestamps, but I needed IST. I had to learn how to transform time zones.
* **Complicated filters:** Combining conditions like “odd date + word count + time range” was tough. I solved this by breaking the problem into smaller calculated columns instead of one big formula.
* **Engagement rate errors:** My first formula gave division-by-zero errors. Using the DIVIDE() function in DAX fixed it.
* **Overthinking visuals:** At one point, I had way too many charts. I learned that sometimes less is more in dashboards.

**SKILLS I DEVELOPED**

By the end of the internship, I had improved in:

* **Technical Skills**
  + Power BI (DAX, Power Query, visuals)
  + Handling messy datasets
  + Creating KPIs and custom measures
* **Analytical Skills**
  + Understanding Twitter metrics deeply
  + Applying business logic to data
  + Thinking like a decision-maker, not just a student
* **Personal Growth**
  + Problem-solving without external help
  + Patience and persistence when things didn’t work
  + Documenting my work clearly

**OUTCOMES**

The final outcome of my internship was a working Twitter Analytics Dashboard with all six tasks completed. The dashboard was interactive, professional, and followed real-world rules.

For me, the bigger outcome was the confidence I built. Now, if someone hands me raw data and asks me to make sense of it, I know where to start and how to approach it.

**CONCLUSION**

Looking back, this internship was more than just a project — it was a learning journey. I started with nervousness but ended with confidence. I didn’t just learn Power BI; I learned how to approach problems, how to break them down, and how to keep going even when things felt stuck.

The NULLCLASS internship gave me a taste of what real-world analytics feels like. It taught me that data is messy, rules are strict, and solutions require creativity. Most importantly, it showed me that I’m capable of figuring things out on my own — and that’s a lesson I’ll carry forward in my career.