## **📄 INTERNSHIP REPORT TEMPLATE – TASK 1 (POWER BI)**

### **📌 Internship Report**

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### **📅 Duration: 26 March 2025 – 26 April 2025**

### **🏢 Internship:**

**Real-Time Twitter Analytics Dashboard – Power BI**

**Company: NULLCLASS**

### **🎓 TASK OVERVIEW**

Create a visual that shows the average engagement rate and total impressions for tweets posted between ’01- 01-2020’ and ’30-06-2020’. Filter out tweets that received fewer than 100 impressions and like should be 0 and this graph should work only between 3PM IST to 5 PM IST apart from that time we should not show this graph in dashboard itself.

**📝 1. Introduction**

As part of the internship program at NULLCLASS, I was assigned a real-time data visualization task using Power BI, specifically to analyze Twitter data. The goal of this project was to build a dynamic dashboard that helps in understanding user engagement based on specific criteria and time frames. This report focuses on the successful implementation of **Task 1** of the internship project.

### **⚙️ 2. Task Done**

The task was to create a Power BI visual that shows:

* **Average Engagement Rate**
* **Total Impressions**

With the following filters applied:

* Tweets posted between **01-01-2020 and 30-06-2020**
* Tweets with:
  + **Impressions ≥ 100**
  + **Likes = 0**

In addition to the filters, there was a **time-based visibility condition**, where the graph must only be visible during **3 PM to 5 PM IST**, and hidden at all other times.

To complete this task:

* I prepared and cleaned a mock dataset in CSV format.
* Imported the data into Power BI.
* Used **DAX formulas** to calculate average engagement rate and total impressions with proper filters.
* Designed two cards to display these values.
* Implemented **bookmarks and buttons** to simulate time-based visibility between 3 PM and 5 PM.

### **🎓 3. What I Learned**

* How to use **DAX** for advanced filtering and measure creation.
* How to apply **conditional logic and time simulation** using bookmarks and buttons in Power BI.
* Gained hands-on experience working with **data modeling**, **report design**, and **visualization tools**.
* Improved my understanding of **real-time dashboards and business intelligence concepts**.

### **🧗 4. Challenges Faced**

* Power BI does not support automatic real-time time-based visibility without refresh, so I had to **simulate time selection** using buttons and bookmarks.
* Writing proper **DAX measures with multiple filters** was initially challenging, especially combining date range, likes, and impressions filters.
* Testing the visibility logic was tricky without dynamic system time control.

I overcame these challenges by referring to Microsoft documentation, Power BI forums, and YouTube tutorials.

### **✅ 5. Final Outcome**

I successfully completed Task 1 by building an interactive Power BI visual that:

* Accurately calculates and displays average engagement rate and total impressions.
* Applies the required filters correctly.
* Uses bookmarks and buttons to simulate visibility during 3 PM to 5 PM.

This dashboard is ready for review and has been uploaded to my GitHub repository as per the internship instructions.

### **🙌 Conclusion**

This task helped me improve my data analysis and dashboarding skills in Power BI. It also taught me how to handle real-world business conditions such as time-based visual access. I look forward to completing the remaining tasks of this internship with equal dedication and learning.

Screen shot of task -1

