**Internship Report**

**Name:** Neha Bisht  
**Internship Duration:** 01-02-2025 to 01-04-2025  
**Organization:** NULLCLASS  
**Project:** Build Real-Time Twitter Analytics Dashboard - Power BI

**1. Introduction**

This report outlines my experience during my internship at NULLCLASS, where I worked on developing a real-time Twitter analytics dashboard using Power BI. The objective of this internship was to analyze social media data and visualize key insights effectively.

**2. Background**

The primary focus of my project was to analyze Twitter engagement metrics and present insights through interactive visualizations. The project aimed to help understand audience behavior based on different engagement factors like likes, retweets, replies, and impressions.

**3. Learning Objectives**

During the internship, I aimed to:

* Learn and implement real-time data visualization using Power BI.
* Understand key Twitter engagement metrics.
* Develop interactive dashboards with dynamic filtering.
* Improve my data analysis and reporting skills.

**4. Activities and Tasks**

I completed several key tasks during this internship:

1. Top Engaged Tweets Visualization
   * Created a chart displaying the top 10% tweets with high engagement.
   * Filtered tweets with over 50 likes, posted on weekdays, and character count below 30.
   * Restricted dashboard display time to 3 PM - 5 PM IST.
2. Clustered Bar Chart for Clicks Analysis
   * Developed a bar chart showing URL clicks, profile clicks, and hashtag clicks by tweet category.
   * Included only tweets with at least one interaction.
   * Restricted dashboard visibility between 3 PM - 5 PM IST for even tweet dates.
   * Ensured tweet word count was above 40.
3. Scatter Plot for Media Engagements
   * Analyzed media engagement vs. media views for tweets with over 10 replies.
   * Highlighted tweets with an engagement rate above 5%.
   * Filtered tweets based on word count above 50 and odd tweet dates.
   * Restricted dashboard display to 6 PM - 11 PM IST.
4. Comparison of Replies, Retweets, and Likes
   * Developed a visualization comparing replies, retweets, and likes for tweets with media engagements above the median value.
   * Filtered tweets posted between June and August 2020.
   * Applied conditions for odd tweet dates, even media views, and character count above 20.
   * Removed tweet words containing the letter ‘S’.
   * Restricted dashboard visibility to 3 PM - 5 PM IST and 7 AM - 11 AM IST.
5. Engagement Rate Comparison for App Opens
   * Compared engagement rates of tweets with and without app opens.
   * Included only tweets posted on weekdays with even impressions and odd tweet dates.
   * Removed words containing the letter ‘D’.
   * Ensured tweet character count was above 30.
   * Dashboard visibility set between 12 PM - 6 PM IST and 7 AM - 11 AM IST.

**5. Skills and Competencies Developed**

* **Power BI:** Gained hands-on experience in creating data dashboards and reports.
* **Data Filtering and Cleaning:** Learned to preprocess and clean Twitter data for meaningful analysis.
* **Time-based Visualization Restriction:** Implemented dynamic filters to display dashboards only within specific timeframes.
* **Problem-Solving & Research:** Developed independent research skills to solve issues during implementation.

**6. Feedback and Evidence**

To validate my work, I have:

* Submitted the .pbix Power BI file to GitHub.
* Hosted the real-time analytics dashboard.
* Shared project screenshots showcasing implemented visualizations.

**7. Challenges and Solutions**

**Challenges:**

* Filtering and preprocessing Twitter data according to complex conditions.
* Implementing time-restricted dashboard visibility.
* Managing large datasets efficiently in Power BI.

**Solutions:**

* Used advanced Power BI DAX functions for data filtering.
* Applied time-based visibility rules using Power Query.
* Optimized dataset size by removing unnecessary data fields.

**8. Outcomes and Impact**

The project provided valuable insights into audience engagement on Twitter. The visualizations enabled real-time tracking of tweet performance, helping in better decision-making for social media strategies.

**9. Conclusion**

This internship at NULLCLASS was a highly rewarding experience, helping me develop strong analytical and data visualization skills. Working independently on real-time analytics enhanced my problem-solving abilities and gave me confidence in handling complex data-driven projects.

**Attachments:**

* GitHub Repository Link: [https://github.com/nehabisht11/Twitter-analysis.git]