**Internship Report: Twitter Analytics Dashboard**

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**Company: NullClass**

**Domain: Data Analytics**

**Overview**

**Introduction**

This internship focused on developing a Twitter Analytics Dashboard as part of the Data Analytics domain. The project was divided into multiple tasks aimed at analyzing Twitter data for actionable insights. The dashboard measures tweet and profile performance over time by tracking metrics like impressions, engagements, profile visits, mentions, and follower growth. The dashboard facilitates data-driven decisions for optimizing social media strategies.

**Objective**

To create a dynamic dashboard that visualizes Twitter data, enabling the identification of trends, audience engagement, and tweet performance. The ultimate goal was to assist in crafting effective social media strategies through actionable insights.

**Background**

In today’s digital-first world, social media platforms like Twitter play a pivotal role in communication and market research. Analyzing Twitter data provides valuable insights into public sentiment, audience interaction, and trending topics. Businesses and marketers use such insights to craft targeted content strategies and maintain a competitive edge. This project aimed to utilize Twitter data to derive meaningful conclusions and actionable recommendations.

**Activities and Tasks**

**Task 1: Engagement Rate Analysis**

* Created a line chart to analyze the trend of average engagement rates over each month of the year.
* Differentiated tweets with media content from those without.
* Designed a bar chart to compare replies, retweets, and likes for tweets with media engagements above the median.
* Included a date filter to focus on tweets from the last six months.

**Summary**:

* Tweets with media content had significantly higher engagement rates than those without.
* The visualization provided insights into how media affects audience interaction, helping optimize future content strategies.

**Task 2: App Open Impact Analysis**

* Compared the engagement rates for tweets with app opens versus those without.
* Focused on tweets posted during weekdays between 9 AM and 5 PM.

**Summary**:

* Tweets with app opens showed a higher engagement rate compared to those without.
* Peak engagement was observed during business hours, indicating the importance of timing in tweet performance.

**Task 3: Media Engagement and Click Analysis**

* Designed a dual-axis chart showing the number of media views and engagements by day of the week for the last quarter.
* Developed a pie chart representing the proportion of clicks (URL clicks, profile clicks, and hashtag clicks) for tweets with more than 500 impressions.
* Integrated drill-down functionality for detailed exploration of click types.

**Summary**:

* Certain days of the week showed spikes in media interactions, emphasizing the importance of posting schedules.
* The pie chart highlighted the most common click types, allowing better targeting of audience behavior.

**Skills and Competencies**

* **Data Preparation**: Cleaned and transformed raw datasets for accurate analysis. Created calculated fields using DAX for measures such as engagement rates and media interactions.
* **Visualization Design**: Proficiently used Power BI to create line charts, dual-axis charts, and pie charts with interactive filters and drill-down capabilities.
* **Analytical Thinking**: Interpreted data to derive actionable insights into engagement trends, audience behavior, and click patterns.
* **Problem-Solving**: Addressed challenges in visualization design and data accuracy by implementing validation techniques and optimizing chart configurations.

**Feedback and Evidence**

**Feedback**:

* Users appreciated the intuitive design of the dashboard and the ability to drill down into click data.
* Suggestions were provided to include additional filters for better exploration of user behavior.

**Evidence**:

* The dual-axis chart highlighted spikes in media interactions on specific days, helping identify optimal posting schedules.
* The pie chart visualized click type proportions, offering clarity on user engagement.

**Challenges and Solutions**

**Challenges:**

1. **Data Accuracy**: Ensuring the accuracy of filtered data and calculated metrics.
2. **Complex Visualizations**: Creating clear dual-axis charts and configuring pie chart drill-downs.
3. **Interactivity**: Enhancing user engagement through advanced filtering options.

**Solutions:**

1. Conducted rigorous data validation checks and used DAX measures to ensure precision.
2. Refined chart designs using Power BI’s formatting and customization tools.
3. Leveraged Power BI’s interactive features to create user-friendly drill-downs and slicers.

**Outcomes and Impact**

**Outcomes:**

* Delivered a fully functional, dynamic dashboard with actionable insights into Twitter engagement.
* Provided visualizations that enhanced understanding of content performance and user behavior.
* Identified optimal posting schedules and high-performing tweet types.

**Impact:**

* Enabled data-driven decision-making for social media strategy optimization.
* Improved content strategies through targeted audience insights.
* Increased understanding of how engagement rates vary with media and app opens.

**Conclusion**

The Twitter Analytics Dashboard effectively utilized advanced visualization techniques and analytical capabilities to provide actionable insights into social media performance. By overcoming challenges and leveraging feedback, the project delivered value to stakeholders, enabling them to make informed, data-driven decisions. This internship has significantly enhanced my skills in data analytics, visualization, and strategic problem-solving.