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BUILT REAL -TIME TWITTER ANALYTICS DASHBOARD -POWER BI

BY NULL CLASS

Submitted by,

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➢ INTRODUCTION

This report summarizes my internship experience working on the project **"Twitter Analytics Dashboard"** using **Power BI** at **NULL CLASS**. During my internship I was tasked with creating a Twitter Analytics Dashboard using Power Bi and Filtering of certain tweets based on the requirements. This project aimed to create a comprehensive dashboard to analyse the Twitter data activity and provide its insights on tweet engagement, clicks, likes, media views, impressions, metrics and trends over time to assist on a better decision making for marketing strategies.

➢ BACKGROUND

Twitter is a popular social media platform with millions of active users. Analysing the Twitter data can provide a valuable insights for businesses, organizations, and individuals. Power BI is a business analytics service by Microsoft that enables users to create an interactive visualizations and intelligence reports for business and organisation purpose to ensure an overall view of their requirements. This project aimed to provide a comprehensive view of twitter data, analysing user engagement and content performance. This was done by importing data from APIs and transforming into actionable insights. My role was mainly focused on Dashboard designs, Data Visualization, and Analysis.

➢ LEARNING OBJECTIVES

- Learning Power BI fundamentals and proficiency using Power Bi for Data Modelling and Data Visualization.

- Understand Twitter data and how to process and analyse it.

- Develop skills in Data cleaning, Transformation, Analysis, Data visualization and Dashboard design

- Analyse Twitter data and provide insights on tweet engagement and sentiment into the use of social media analytics for marketing decision-making.

- Learning to work with large datasets and optimize performance for better outcomes.

➢ ACTIVITIES AND TASKS

- Collected and imported data from Twitter using APIs and Excel.

- Cleaned and Transformed Twitter data using Power BI to make it usable for analysis.

- Created data models and relationships to enable data analysis

- Designed and developed interactive visualizations, including charts, graphs and cards.

- Created a comprehensive dashboard to display key metrics and insights.

- Analysed tweet engagement and sentiment using Power BI's analytics features and conducted a data analysis to derive insights and present insights.

➢ SKILLS AND COMPETENCIES

- Technical Skills: Proficient Power BI, DAX (Data Analysis Expression), and API integration for development and data modelling

- Data Skills: Data cleaning, Transformation, Visualization for Dashboard design

- Analytical Skills: Conducting a trend analysis and for Data analysis and deriving an actionable insights.

- Problem-solving Skills: Identifying and resolving data inconsistencies and integration issues. Critical thinking for solving it

- Communication Skills: Communicating through Presenting the Data's in a Presentable and treat to the Visual manner on Dashboard.

➢ FEEDBACK AND EVIDENCE

-Received a positive feedback for the clarity and interactivity on my dashboard design and data analysis, highlighting areas for improvement, which allows the stakeholders to explore the data effectively and praised the dashboard's usability and insights.

- Effective application of the data analysis techniques are done to extract the insights form the Twitter

- Clear and concise addressing and communications has made of insights and the findings

➢ CHALLENGES AND SOLUTIONS

- Challenge: Handling large datasets and inconsistent twitter data, especially missing values and incomplete records.

Solution: I used Power Query and custom DAX formulas to clean and impute missing data and optimize its performance.

- Challenge: Designing an intuitive and user-friendly dashboard.

Solution: I used Power BI's dashboard design features to create a clear and concise layout of the dashboard.

-Challenge: Optimising the dashboard for performance.

Solution: I applied Data aggregation techniques and filtered data to improve the load time.

-Limited data set has been one of the major challenges I faced, where I've tend to address a limited dataset where some data are not found as per the requirement from the task.

➢ OUTCOMES AND IMPACT

The Twitter Analytics Dashboard project provided a real-time valuable insights into twitter performance, on tweet engagement and sentiment. The dashboard enabled stakeholders to track key

metrics and marketing efforts effectively to make data-driven decisions. It also helped to improve social media strategy by identifying high-performing tweets and understanding audience sentiment. The project also demonstrated the power of Power BI in analysing large datasets and creating an interactive visualizations.

➢ **CONCLUSION**

This project significantly enhanced my Technical, Analytical and Problem-Solving skills. This internship experience provided me with valuable skills and knowledge in Power BI development, data analysis, and visualization. I successfully created a comprehensive Twitter Analytics Dashboard that provided insights on tweet engagement and sentiment. I gained hands-on experience in using Power Bi. I am confident that the skills and competencies I gained during this internship will benefit me in my future career.