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Twitter Sentiment Analysis Project

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Introduction

In today’s digital age, social media platforms like Twitter have become powerful tools for analyzing public sentiment and emotions. This project analyzes Twitter data to extract sentiment insights and visualize emotions to understand user behavior better.

Project Objectives

- Analyze and visualize Twitter sentiment data.
- Identify key trends in positive, negative, and neutral sentiments over time.
- Evaluate dominant emotions such as joy, anger, and sadness.
- Display the most frequent keywords using a word cloud.

Tools Used

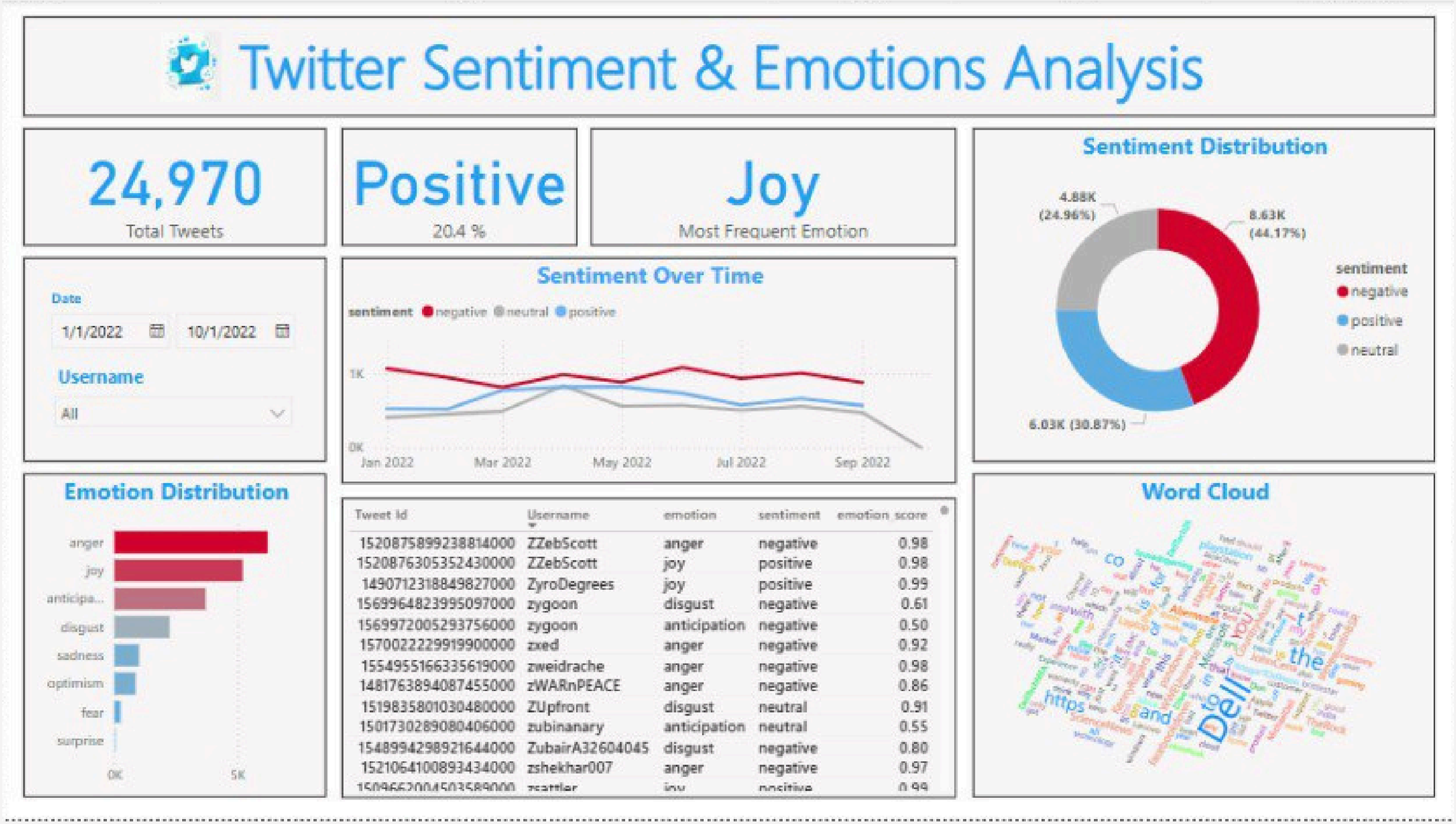
- **Power BI:** For creating interactive dashboards and visualizations.

- **Python (Pandas, Matplotlib, Seaborn): Python (Pandas, Matplotlib, Seaborn):**Used for cleaning, exploring, and preparing data. Applied natural language processing (NLP) techniques to clean text data, extract sentiment scores, and visualize how sentiment changes over time.

Data Analysis Insights

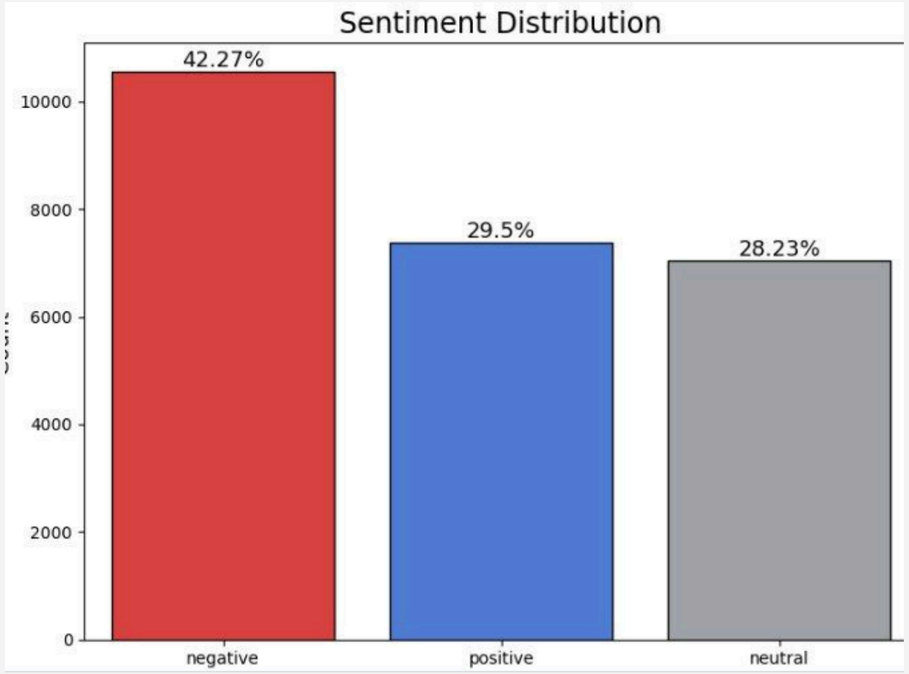
- Total Tweets: 24,970
- Dominant Sentiment: Positive (20.4%)
- Most Frequent Emotion: Joy
- Top Keywords: (عرA more detailed display of the most frequent words from the Word Cloud)
- Sentiment Distribution: Positive, Neutral, Negative

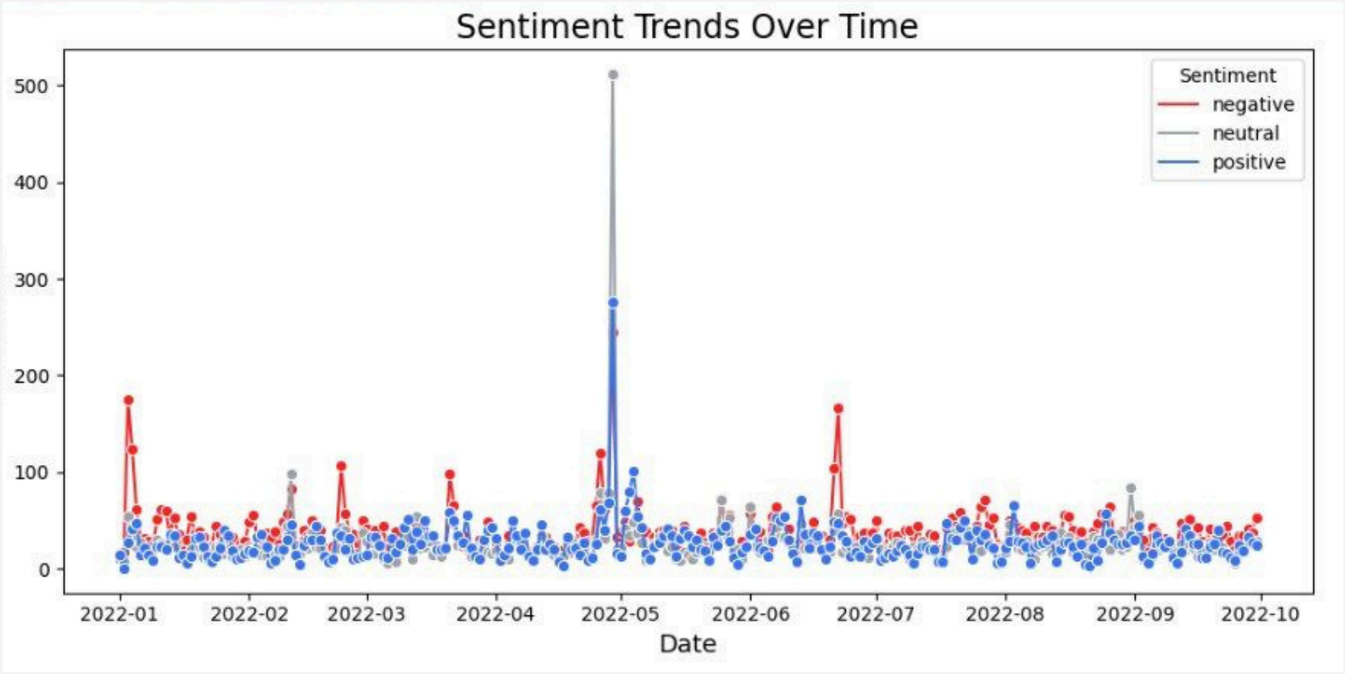
Dashboard Overview



Python Code Summary

Python was used to preprocess text data using libraries such as Pandas. NLP techniques, including sentiment analysis with TextBlob, were applied to extract sentiment scores and analyze sentiment trends over time using Matplotlib and Seaborn.





Conclusion

The Twitter Sentiment & Emotions Analysis project provided valuable insights into how users express emotions and sentiments on Twitter. By combining Power BI and Python, we were able to gain a deeper understanding of social media behavior and present it in an intuitive and actionable format.

Thank you