🚀 **Excited to Share My Project: Stock Market Real-Time Analysis!**

I’m thrilled to present a **full-fledged real-time stock market analytics platform** that I built to monitor live trading activity and provide actionable insights instantly.

💻 **What It Does:**  
This platform fetches live data directly from the **Binance API**, streams it through **Kafka**, and processes it in real-time using **Apache Spark Streaming**. The processed analytics are continuously stored in **PostgreSQL**, and displayed on an **interactive Streamlit dashboard** that updates every few seconds.

📊 **Key Features & Metrics:**

* **Average Price** of each stock
* **Total Traded Quantity**
* **Traded Value**
* **Average Quantity per Trade**
* **Volatility**
* **Buy/Sell Counts**
* **Buy/Sell Ratio**
* **Trade Count**

All metrics are updated **live**, giving a complete snapshot of market activity in real-time.

🛠️ **System Architecture:**  
The data pipeline is designed for efficiency and scalability:

Binance API → Kafka Producer → Spark Streaming → PostgreSQL → Streamlit Dashboard

* **Kafka** handles high-throughput streaming data
* **Spark Streaming** computes analytics in real-time
* **PostgreSQL** stores processed data for dashboard consumption
* **Streamlit** visualizes the analytics dynamically

🐳 **Deployment:**  
The entire system is **containerized using Docker**, making it easy to deploy anywhere and maintain scalability.

💡 **Why It Matters:**  
Real-time stock market insights are crucial for traders, analysts, and financial applications. This project demonstrates how **modern streaming technologies** can be combined to provide **instant, actionable intelligence** from raw market data.

📂 Source Code  
 GitHub: https://github.com/muhamaddkhaledd/Stock-Market-Real-Time-Analysis

If you’re interested in **Data Engineering, Real-Time Analytics, Spark Streaming, Kafka, or Python**, this project is a practical example of how to build end-to-end streaming pipelines and live dashboards.

#DataEngineering #RealTimeAnalytics #SparkStreaming #Kafka #Python #Docker #Streamlit #PostgreSQL #StockMarket #FinTech #BigData