Analyzing Real time cryptocurrency

Problem Definition:

The issue definition for Crypto Currency data warehousing, processing, and analysis entails constructing a centralized repository of Crypto Currency data, cleaning and transforming the data, and doing data analysis to acquire insights into the Crypto Currency market. The project's goal is to enhance decision making, optimize trading techniques, and anticipate future Crypto Currency market patterns.

The first step is to get Crypto Currency data from the source using an API or scraping tools and store it in a cloud-based / local data warehouse. After that, the data is cleaned and transformed by eliminating duplicate or incomplete data and normalizing it.

To detect trends and patterns in the Crypto Currency market, data is analyzed using tools like as SQL queries, data visualization, and machine learning algorithms. The results and suggestions based on the data analysis are disseminated to stakeholders.

Overall, Crypto Currency data warehousing, processing, and analysis may give significant insights into the Crypto Currency market and assist players in making informed decisions and improving their performance. The initiative is an important step toward utilizing data analytics in the cryptocurrency business, and it has the potential to contribute to the growth and success of the Crypto Currency market.

Data source:

The CoinCap API, notably the endpoint that gives information on assets such as Bitcoin, is the data source utilized in this project.

API Endpoint: https://api.coincap.io/v2/assets

The API provides the following JSON response:

[{"id":"bitcoin","rank":"1","symbol":"BTC","name":"Bitcoin","supply":"19618343.000000000000000","maxSupply":"21000000.0000000000000000","marketCapUsd":"835435777974.4183495482836470","volumeUsd24Hr":"4760159036.3792827873026213","priceUsd":"42584.4210173315019290","changePercent24Hr":"1.0956691070429600","vwap24Hr":"42945.4716425937635244","explorer":"https://blockchain.info/"}]

This answer includes information on the asset "Bitcoin," such as its ID, rank, symbol, name, supply, maximum supply, market capitalization, 24-hour trading volume, price in US dollars, 24-hour change %, volume weighted average price, and a blockchain explorer URL.

This information may be utilized to acquire insights into the Crypto Currency market, such as recognizing trade patterns and following price changes. By accumulating this information over time, it is feasible to assess previous trends and forecast future market behavior.

Project Objectives:

- **Centralized Crypto Currency Data Repository**: The project's expected outcomes include a centralized repository of Crypto Currency data stored in a cloud-based/local data warehouse, processed, and cleaned data ready for analysis, meaningful insights, and findings about the Crypto Currency market.

- **Predictive Analytics Model Implementation:** Make use of past data from the cryptocurrency market to develop and use a predictive analytics model. To enable the model to predict possible future market moves, apply machine learning algorithms to analyze patterns, trends, and market behaviors. Predictive insights that enable stakeholders to foresee market trends, price swings, and possible investment opportunities are the aim of this project. The effort seeks to improve decision-making procedures and provide traders and investors with insight into the dynamics of the cryptocurrency market by integrating predictive analytics.

- **Recommendations and Strategies:** Recommendations and strategies for investors, traders, and financial analysts to make informed decisions and capitalize on Crypto Currency market opportunities. The initiative intends to enhance decision making, optimize trading tactics, and increase business performance for Crypto Currency enterprises.