**Assessment Task: Fetching and Analyzing Top 50 Live Cryptocurrency Data**

**Data Insights Report for Cryptocurrency Analysis**

**Objective**

The objective of this analysis is to gain insights into the cryptocurrency market by fetching real-time data and performing various analyses to understand market trends, top-performing cryptocurrencies, and price changes.

**Data Source**

The data is sourced from the CoinGecko API, which provides comprehensive information on various cryptocurrencies, including market capitalization, current prices, and percentage changes over the last 24 hours.

Link to Excel sheet : [top\_50\_cryptocurrencies\_with\_analysis.xlsx](https://1drv.ms/x/c/986a3108c35e0a35/EVFbjkAwk_hGq1bG-d0wxwsBIa7wPDyuMR1K5zbyzoayWw?e=pDZX0g)  
Link to Python Script : https://colab.research.google.com/drive/1uvlOs5a4DEOUqJ2IlPDPXYHqQ7kp94MT?usp=sharing

**Methodology**

1. **Data Retrieval**: The analysis begins by fetching data from the CoinGecko API using the GET method. The relevant parameters are specified to retrieve the top 50 cryptocurrencies by market capitalization.

2. **Data Cleaning**: The retrieved data is processed to ensure it is in a suitable format for analysis. This includes handling missing values and converting data types as necessary.

3. **Data Analysis**:

   - **Top 5 Cryptocurrencies**: The analysis identifies the top 5 cryptocurrencies based on market capitalization.

   - **Average Price Calculation**: The average price of the top 50 cryptocurrencies is calculated to provide a benchmark for market performance.

   - **Price Change Analysis**: The highest and lowest price changes over the last 24 hours are determined to identify the most volatile cryptocurrencies.

**Key Findings**

- The analysis reveals the top 5 cryptocurrencies, highlighting their market capitalization and current prices.

- The average price of the top 50 cryptocurrencies provides insight into the overall market trend.

- Significant price changes indicate which cryptocurrencies are experiencing the most volatility, which can be crucial for investors.

**Conclusion**

The insights derived from this analysis can inform investment decisions and strategies in the cryptocurrency market. By understanding market trends and identifying top performers, stakeholders can make more informed choices. Future analyses could expand on this work by incorporating additional data sources or exploring different analytical techniques.