**Cryptocurrency Price Forecasting Using Machine Learning**

**Origin of the Dataset:**

The dataset is taken from Kaggle, an open-source platform providing diverse categories of data. The dataset consists of the market data of 23 cryptocurrency coins like Aave, Bitcoin, Ethereum etc. With each sub dataset, it contains several parameters related to price forecasting.

Data source: Kaggle

Data access link:

<https://www.kaggle.com/datasets/sudalairajkumar/cryptocurrencypricehistory?select=coin_Ethereum.csv>

**Dataset Description:**

**Open, Close, High, Low and Volume** are the five indicators used in analysing the financial market activity over a specified time frame. It is pivotal for traders and analysts as it provides snapshot of trading dynamics.

* **Open and Close** denote the commencement and conclusion trading levels.
* **High and Low** indicate the peak and trough values in the interval.
* **Volume** quantifies the total number of shares or contracts traded, offering insights into market sentiment and liquidity.
* **Market cap** represents the overall value of a cryptocurrency in circulation.

It’s calculated as:

Market Cap = Price × Circulating Supply

**Libraries & Tools covered:**

Jupyter Notebook for code development.

Numpy, Pandas for data cleaning and preprocessing along with time series analysis like Rolling Function and Window Functions.

Seaborn, Matplotlib, Plotly for data visualisation and Exploratory Data Analysis.

Scikit Learn and xgboost for developing regression models.