





EDA Report Summary:

1. Dataset Overview:

- **Time Period:** May 5, 2013 – Oct 23, 2022.

- **Coverage:** 56 unique cryptocurrencies.
- **Data Quality:** No missing values found in the raw set.

2. Key Findings:

- **Market Leadership:** Bitcoin dominates with an average market cap of \$177B, followed by Ethereum (\$77B).
- **Volatility Trends:** Volatility is right-skewed, meaning markets are mostly stable with occasional extreme "black swan" events.
- **Correlations:** There is a positive but weak correlation (0.15) between Volume and Volatility, suggesting that high trading activity often accompanies price instability.
- **Price Dynamics:** Long-term price trends show massive growth but with significant drawdown periods, characteristic of crypto cycles.

3. Visualizations Included in the Report:

- **Price Trends:** Log-scale comparison of top assets (BTC, ETH, etc.).
- **Volatility Distribution:** Histogram showing the frequency of stable vs. volatile days.
- **Correlation Matrix:** Heatmap showing relationships between price, volume, and volatility.
- **Volume vs. Volatility:** Scatter plot analyzing if higher volume leads to higher risk.