Power BI Project: Cryptocurrency Market Trends Dashboard

Live Dashboard

View the dashboard:

https://app.powerbi.com/view?r=eyJrIjoiYzg3Y2IxOGMtYjgwNS00ODEyLTg3ZD
MtY2UyNzRhY2JlNDcxIiwidCI6IjZhODgzMmRjLTUxNGQtNDAzZS05NmVlL
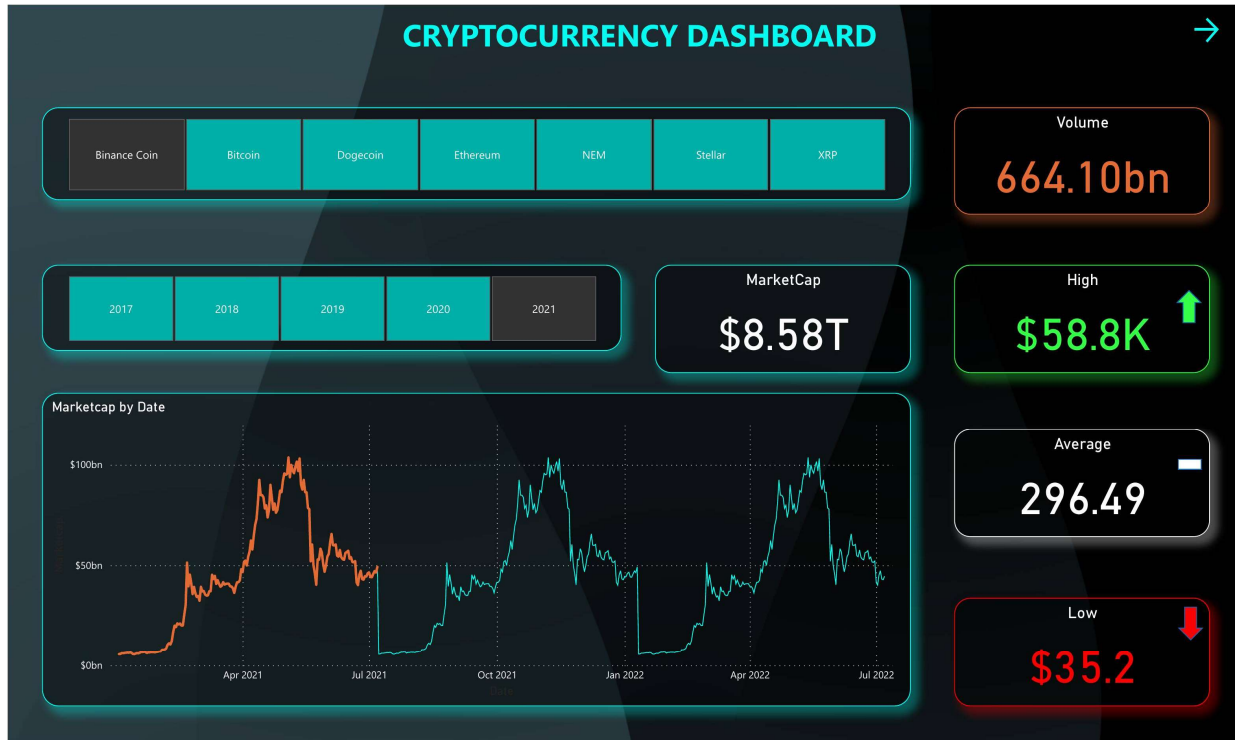WU1YWY4NzVlY2VjNiIsImMiOjZ9

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OVERVIEW

This Power BI dashboard analyzes the market performance of major
cryptocurrencies including Bitcoin, Ethereum, Binance Coin, Dogecoin, NEM,
Stellar, and XRP. Users can track market capitalization, price volatility, and trading
volumes over time, supporting actionable market insights for investors, analysts, and
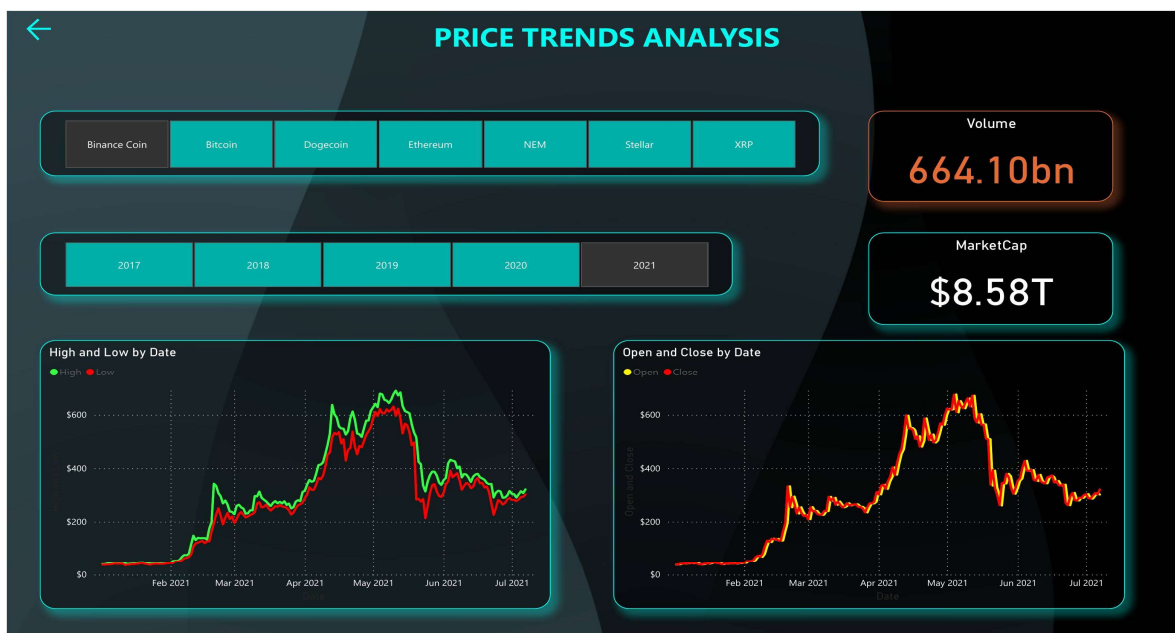financial educators.

FEATURES

- Market cap tracking by coin and combined total

- Year-by-year and month-by-month price volatility (high/low, open/close)

- Volume comparison across leading cryptocurrencies

- Fast, clear trend analytics for research and strategy

DASHBOARD SNAPSHOTS

Snapshot: See total and major-coin market caps, historic peaks, volumes, and price records.

Panel: High/low price and open/close analysis for each tracked coin over time.

KEY INSIGHTS

- Aggregate crypto market cap hit $8.58 trillion in 2021's peak, as Bitcoin approached $60,000.

- The "alt season" reflected by strong gains in Ethereum, Binance Coin, Dogecoin, and later market corrections.

- Daily, monthly, and yearly price/volume patterns clearly illustrate high volatility and cyclic trends.

HOW TO USE

1. Open the live dashboard for full interactivity and deeper time-series filtering.

2. Use images in this report for concise visual storytelling or presentations.

3. Use findings for investment analysis, macro market research, and educational explanation.

ABOUT

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All visuals and data for educational and portfolio purposes only.

TECHNICAL IMPLEMENTATION

DATA SOURCE:

- Sourced from public crypto data APIs and aggregators (e.g., CoinMarketCap, CoinGecko), downloaded as CSV for each coin.

DATA STORAGE:

- CSV files held locally; imported into Power BI for modeling and visualization.

UPDATE FREQUENCY:

- Data updated monthly with each new extract; can be automated for scheduled refresh with API/database connection.

ETL PROCESS:

- All transformations in Power Query for date parsing, numeric cleanup, currency/field standardization.

CONNECTION MODE:

- Import mode, enabling fast filtering and all DAX calculations.

DATA TRANSFORMATION:

- Uniformed date formats, handled missing entries, standardized coin tickers, cleaned and validated price and volume columns.

DATA MODELING CHALLENGES:

- Managed missing data for newer coins and filled missing values for consistent trend lines.

DAX FUNCTIONS:

- Used CALCULATE, MAX, MIN, AVERAGEX for summary and trend lines; SWITCH for year/category breakdowns.

KPIs:

- Market cap, trading volume, daily/monthly/yearly high/low, open/close for each coin.

BEST PRACTICES:

- Clear numeric formatting, colorblind-friendly charts, date-aware tooltips for accessibility.

PERFORMANCE OPTIMIZATION:

- Reduced data granularity for long periods; kept visuals focused on headline KPIs for speed.

RLS:

- Not needed; all data is public and equally visible.

DATA VALIDATION:

- Final dashboard results compared to reference data from top crypto analytics sites.

END USERS:

- Crypto analysts, investors (retail/institutional), students, journalists.

DATA REFRESH:

- Manual for each extract; easily set to auto with API connection for production.

COLLABORATION & SHARING:

- Deployed via Power BI Service; images and summaries shared in presentations and with hiring managers.