

# BAX 421

## Project Insights

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BAX 421-002

Chaitanya Khot



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# Introduction

- The chosen dataset contains detailed information about cryptocurrencies, including their historical prices, market metrics, trading volumes, and supply details.
- It provides a comprehensive view of the cryptocurrency market by including data like market cap, trading pairs, and 24-hour trading volumes.

## Objectives:

1. To design a database framework that optimally stores cryptocurrency data for analysis.
2. To ensure efficient storage and retrieval of historical price data, market metrics, and trading volumes.
3. To enforce relationships between entities to maintain data integrity and consistency.

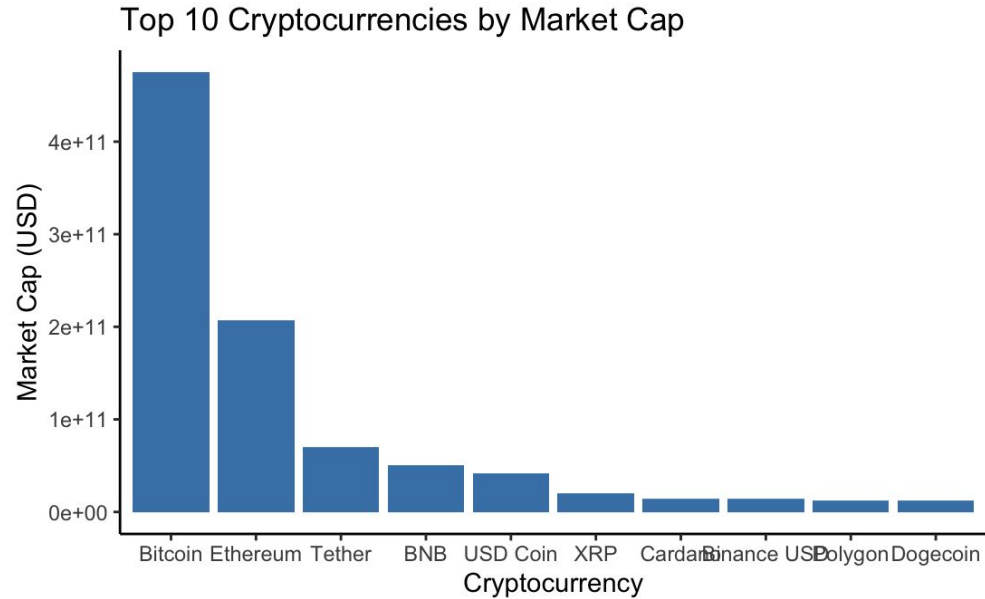
# Business Questions

The business questions that we are trying to address through this dataset are mentioned below:

1. What are the top 10 cryptocurrencies by market capitalization?
2. Which cryptocurrency has the highest trading volume in the last 24 hours?
3. List all trading pairs for Bitcoin (BTC), including base and quote currencies.
4. What is the total market capitalization of all cryptocurrencies?
5. Find the top 5 cryptocurrencies with the highest price-to-market-cap ratio.
6. Identify cryptocurrencies where the circulating supply is less than 50% of its total supply.
7. Calculate the percentage change in market dominance for each cryptocurrency over the last 30 days.
8. Retrieve all trading pairs and their 24-hour trading volumes for the top 10 cryptocurrencies.

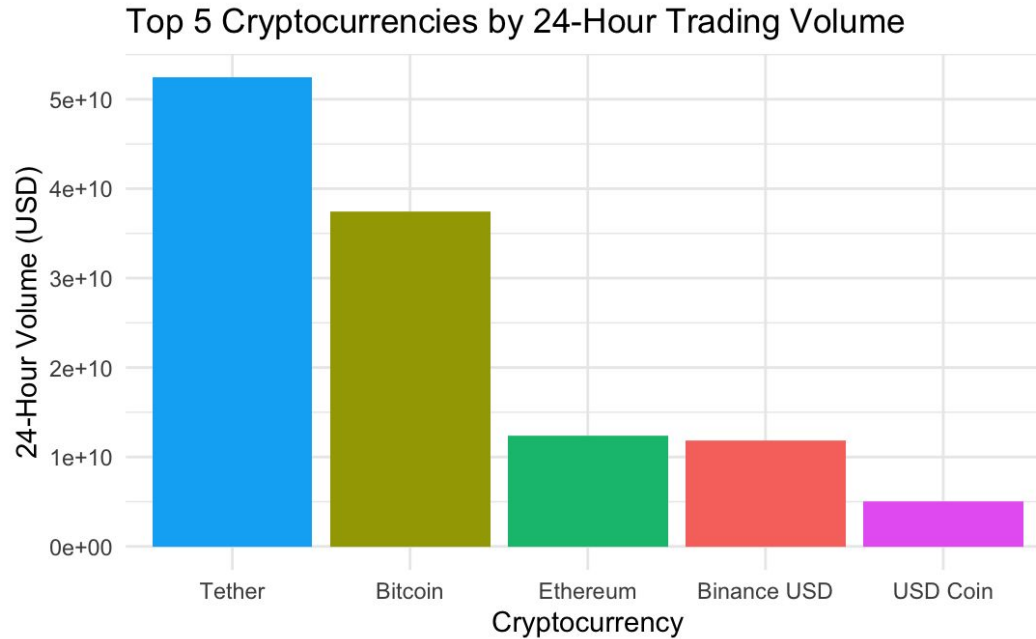
# Business Questions

1. What are the top 10 cryptocurrencies by market capitalization?



## Business Questions

2. Which cryptocurrency has the highest trading volume in the last 24 hours?



## Business Questions

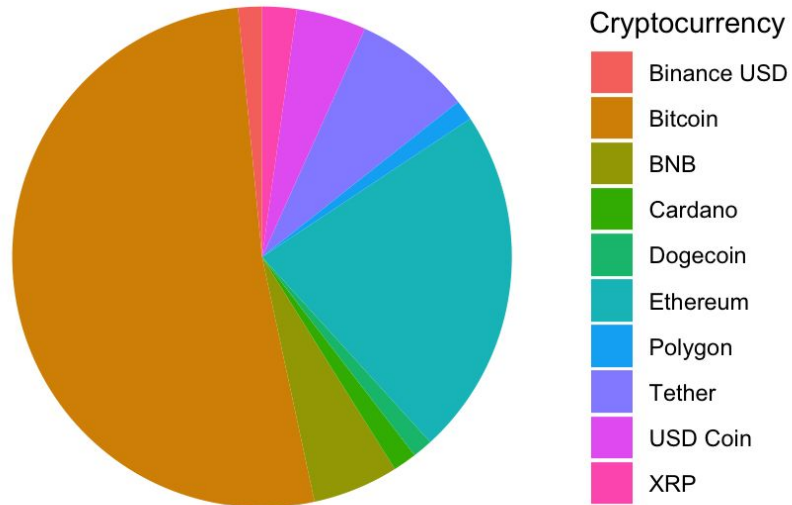
3. List all trading pairs for Bitcoin (BTC), including base and quote currencies.

base_currency	quote_curren...
USD	USD

## Business Questions

4. What is the total market capitalization of all cryptocurrencies?

Market Share of Top 10 Cryptocurrencies





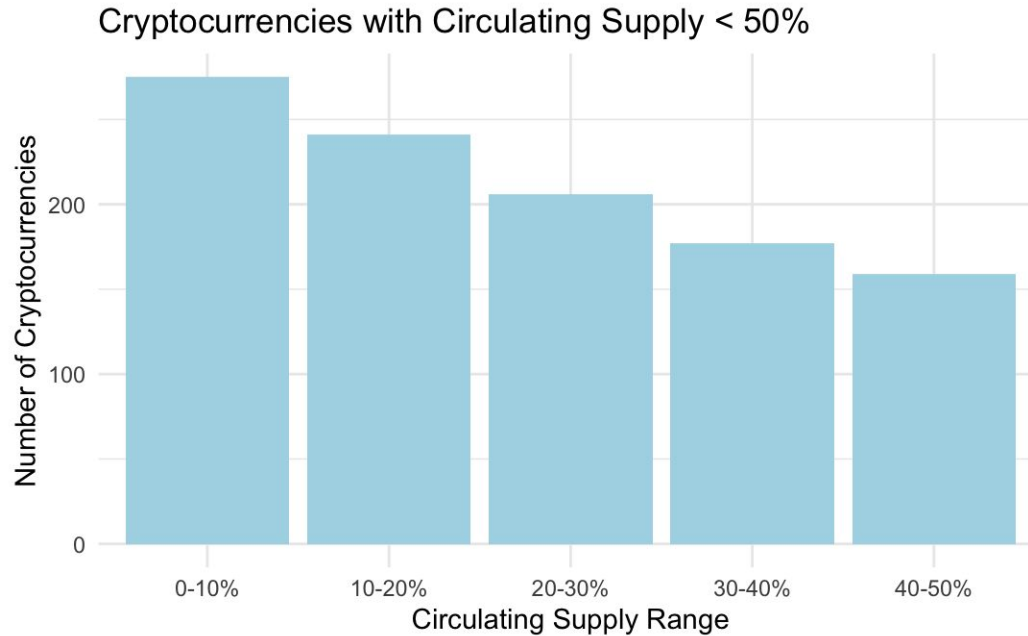
## Business Questions

5. Find the top 5 cryptocurrencies with the highest price-to-market-cap ratio.

	crypto_id	Name	price_to_market_cap
	1458	42-coin	0.023809551272315335
	799	Unisocks	0.0033112582784435
	1363	DIGG	0.0017423833176302183
	2475	FUZE Token	0.0013343752596296427
	2138	Spaceswap SHAKE	0.0013175230562353568

## Business Questions

6. Identify cryptocurrencies where the circulating supply is less than 50% of its total supply.



## Business Questions

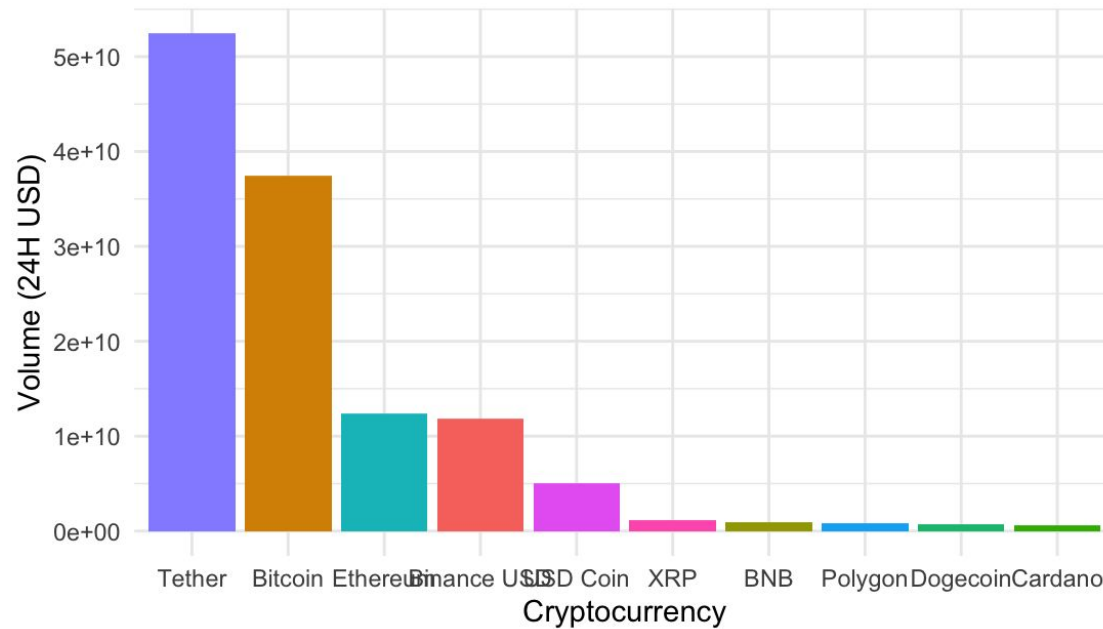
7. Calculate the percentage change in market dominance for each cryptocurrency over the last 30 days.

	crypto_id	Name	percentage_chan...
	1	Bitcoin	0
	2	Ethereum	0
	3	Tether	0
	4	BNB	0
	5	USD Coin	0
	6	XRP	0
	7	Cardano	0
	8	Binance USD	0
	9	Polygon	0
	10	Dogecoin	0
	11	Solana	0

## Business Questions

8. Retrieve all trading pairs and their 24-hour trading volumes for the top 10 cryptocurrencies.

Trading Pairs and 24-Hour Volumes (Top 10 Cryptos)



# Findings & Insights

Some of the key findings from the dataset and the business questions are mentioned below:

- **Market Overview:** Dataset provides insights into prices, volumes, and metrics for comprehensive market analysis.
- **Key Metrics:** Identifies top cryptocurrencies by market cap, volume, and price-to-market-cap ratio.
- **Supply Insights:** Highlights scarcity and growth potential through supply analysis.
- **Dominance Trends:** Tracks market dominance shifts over time.
- **Efficient Management:** Ensures scalable and efficient data storage and retrieval.

# Appendix

- Dataset: <https://drive.google.com/file/d/1xivtuO1-ODUPZGxmgxtuA7H8IJff7J26/view?usp=sharing>
- SQL File: <https://drive.google.com/file/d/1JvMIHdGAYuuVGzwZ119RR3WpUNiySuNX/view?usp=sharing>
- Phase I Dataset Selection: [https://drive.google.com/file/d/1zYIVXWnx8E\\_jMjMMQxFFCjcfZVfpGUwT/view?usp=sharing](https://drive.google.com/file/d/1zYIVXWnx8E_jMjMMQxFFCjcfZVfpGUwT/view?usp=sharing)
- Phase II Project ERD: [https://drive.google.com/file/d/1toQG9Wfjb\\_EDmQ05\\_xoFepWEQK5W7hIR/view?usp=sharing](https://drive.google.com/file/d/1toQG9Wfjb_EDmQ05_xoFepWEQK5W7hIR/view?usp=sharing)
- Phase III Business Questions: <https://drive.google.com/file/d/1rSAq5LBGf93Z931V5ZheIWeHSYyakW6s/view?usp=sharing>
- Project Folder: [https://drive.google.com/drive/folders/1gdsE9\\_dFPeCBJ79Oy-ZFB7EygKz\\_LTjM?usp=sharing](https://drive.google.com/drive/folders/1gdsE9_dFPeCBJ79Oy-ZFB7EygKz_LTjM?usp=sharing)



Thank you

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