



Extract

BITCOIN V. BITCASH

LOAD

Christos Ferderigos, Zohna Jones, Omar Kreidieh, Anu Srivastava

Purpose

• Bitcoin and Bitcoin Cash: popular and increasingly

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Purpose

- Bitcoin and Bitcoin Cash: popular and increasingly profitable cryptocurrencies
- Purpose: Perform the ETL process on Bitcoin and Bitcoin Cash data to analyze the relationship.



Bitcoin

vs



BitcoinCash

Extract

Bitcoin Cash

- Bitcoin Cash dataset(CSV):
 - Kaggle
 - Daily dates & stats
 - Date, open, high, low, close, volume, market cap

Bitcoin

- Bitcoin dataset (API/JSON):
 - Bitcoin CoinGecko API/JSON
 - Create loop call 2017-2019 dates
 - Build in try-except
 - Dataframe created from call: date, market cap, volume, current price columns
- **Challenge:** Extraction was difficult because of creation of loop and try-except

Transform

Cleaning

- Python Pandas-- Jupyter Notebook
- Reformat date for Bitcoin API/JSON dataset
 - Inner merge on date
- Columns: dropped due to non-relevance
- Columns: renamed to keep consistency
- **Challenge:** Remove rows that contained empty fields in the Market Cap column with (-)

Cleaning

- Once cleaned separately, cleaned once combined
- New dataframe created separately for index variable
- Faster/ease of use in database loading phase than searching through string

LOAD

Database

- Pg4Admin SQL used to load data
 - Data relational
 - Only joined on one element-date
- Two tables created
 - Index- primary key
 - Bitcoin/Bitcoin Cash combined date-foreign key
 - References primary key

Analysis

- To further normalize, used Matplotlib to generate line graph based on series of common dates

Analysis

