



CryptoGambit

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Problem Statement



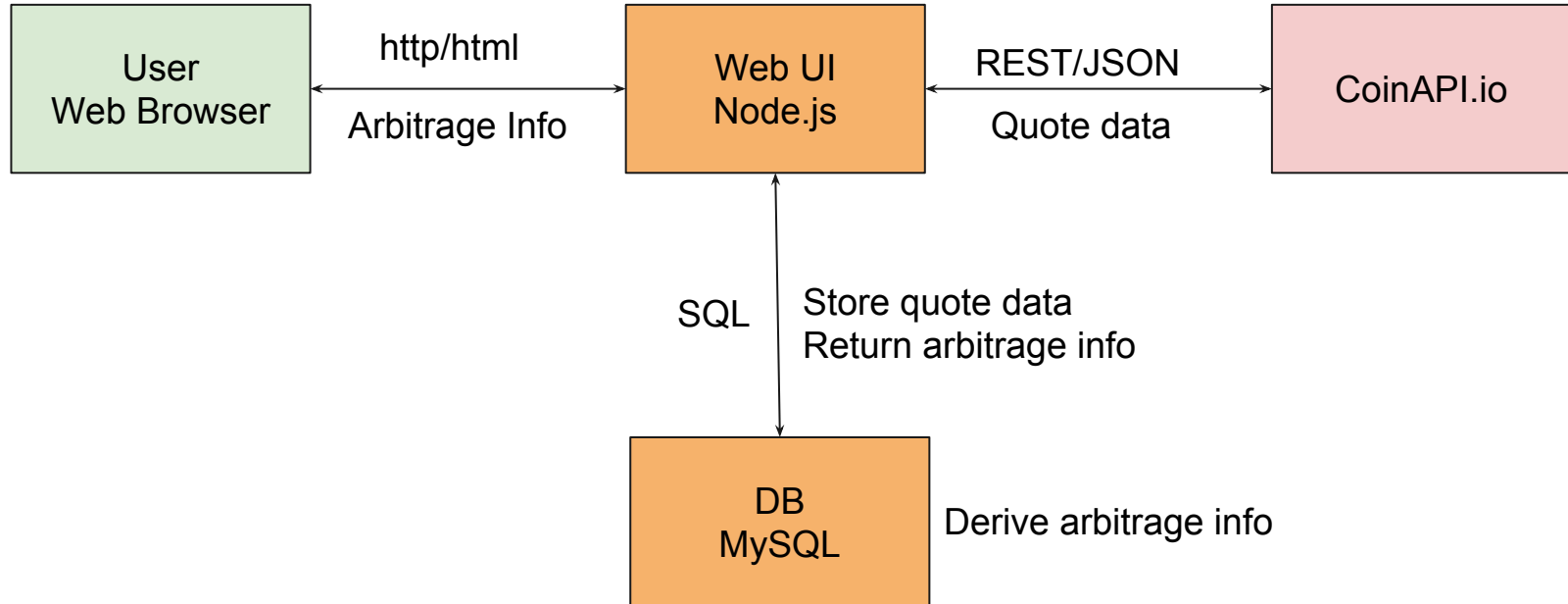
- ❖ Cryptocurrency and its trading is already trending all over the world with market capital of more than \$350bn
- ❖ Highly fluctuating market and hence best for arbitrage strategy
- ❖ Arbitrage is simultaneous buying and selling of an asset in different markets in order to take advantage of differing prices of same asset
- ❖ Focus of the project is to identify arbitrage opportunity in cryptocurrency market

Solution Approach



- ❖ [CoinAPI.io](https://coinapi.io) is used to fetch quote information for 1500+ crypto assets from 90+ exchanges
- ❖ Data provider supports REST/JSON for on demand and Websocket for live feed
- ❖ REST API used to get data in JSON format
- ❖ Node.js with express module is used to fetch quote data and show arbitrage opportunities on web UI
- ❖ MySQL is used to store fetched quote data and derive arbitrage information

Solution Architecture



Demo



<http://flip3.engr.oregonstate.edu:2018/>

Encountered Challenges



- ❖ Identifying the correct data source
- ❖ Optimizing the load time of data in MySQL
- ❖ Deducing the logic of arbitrage
- ❖ Implementing and mainly optimizing the SQL code to generate output
- ❖ Identifying easy way to show inference to the user to be useful
- ❖ Validating the generated output for correctness

Enhancements Scope



- ❖ Identify arbitrage opportunities among user specified list of exchanges and/or assets
- ❖ Procure paid license key of [CoinAPI.io](https://coinapi.io) and implement same logic with live data feed
- ❖ Assess the feasibility of automated trade for identified arbitrage opportunity by utilizing the APIs exposed by popular exchanges



Thank you!

