Analyzing Ethereum Transactions

Team 3

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1

USERS ACCESSES LIVE DASHBOARD TO CHECK THEIR CUSTOMER TRANSACTIONS IN OUR SYSTEM

2

USER CAN STUDY DASHBOARDS AND FIND LATEST TREND IN THE ETHEREUM MARKET

3

USER CAN MODIFY DASHBOARD DESIGN AND CHANGE REPRESENTATION OF DATA
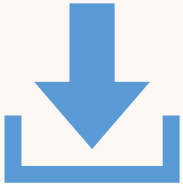
Use Cases

Methodology

Purpose: To analyze the full set of transactions which have occurred on the Ethereum network from the first transactions 2016 till 2019 using Big data tools such as Kafka and Spark.

- Download chunk of dataset from Bigquery and store locally.
- Use Spark-Streaming API to read the CSV file and write to Kafka topic as stream of records
- Use Spark-Streaming API to consume data stream from the Kafka Topic and load it as a data frame.
- Store the transformed data into MySQL and use Apache Superset to create visualizations of relevant data
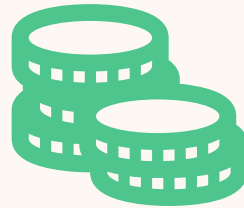
CSV file (Local system) -> Spark (Producer) -> Kafka -> Spark (Consumer) -> MySQL -> Apache Superset
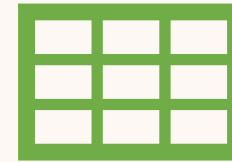
Data Source

Big query crypto currency Ethereum dumps daily. We download it in csv format and save it locally.

It has 9 tables such as transactions, logs, contracts, tokens.

Number of rows are approximately 30,000 per data chunk

Milestones/Sprints

Project	Project Set Up (1 Apr – 7 Apr)
Write	Write Consumer & Producer Logic (8 Apr – 14 Apr)
Perform	Perform data transformation according to need of analysis (15 Apr – 21 Apr)
Create	Create dashboards to visualize data (22 Apr – 27 Apr)

What will you program in Scala?

Kafka Topic configuration

Kafka Producer for each table
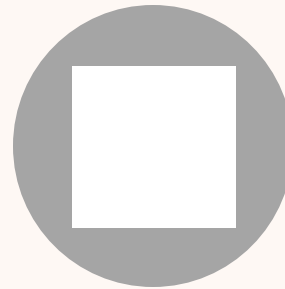
Kafka Consumer for each table

Data transformation logic

Store transformed data to MySQL

Acceptance criteria

Live dashboard configured **to pull the data every** 10 **seconds**

Data sent **to the kafka topic** loads it **into a** data frame **every second.**

Goals of the project

- **Time Analysis** - Number of transactions occurring every month from Feb 2016 to June 2019.
- **Top 10 Most Popular Services** - Evaluation of top 10 smart contracts by total Ether received.
- **How Gas price (Cost in Crypto) is changed over the time**
- Miscellaneous Analysis

Thank You