



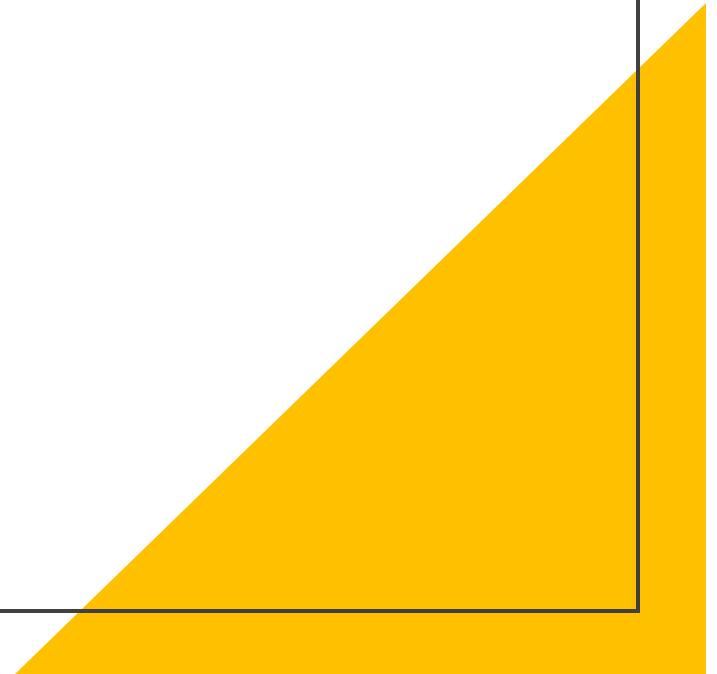
BADM 554 EDM – Project Reflections

Team 12

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Mini Project 1



Objective: To set up a new restaurant in the city of our choice based on Yelp Data

Step 1

- Count the no. of restaurants in distinct U.S. cities and analyze the star rating
- **Intent:** Select a target market for new restaurant

Step 2

- Find the average star rating for restaurants in California and select a city
- **Intent:** Fix a city to open the new restaurant in based on average rating above 3.5 stars

Step 3

- Count the restaurants offering specialty cuisines
- **Intent :** Check popular cuisines in Santa Barbara along with star ratings

Step 4

- Further analysis of Indian restaurants
- **Intent:** Filter out most popular restaurants based on reviews with exact location (zip code)

Step 5

- Plan a marketing strategy for the new restaurant
- **Intent:** Find the most popular influencers/reviewers on Yelp and contact them for marketing efforts

Mini Project 1



Step 2

City	State	Review_Count	Number_of_restaurants	Average_Starring
Goleta	CA	189	220	3.5568181818181817
Isla Vista	CA	49	55	3.590909090909091
Carpinteria	CA	460	81	3.7222222222222223
Santa Barbara	CA	389	767	3.827900912646675
Summerland	CA	201	9	3.888888888888889
Montecito	CA	142	27	3.962962962962963

Step 3

American COUNT(*)	avg(stars)
American 222	3.873873873873874
Mexican 118	3.8389830508474576
Indian 10	3.55
Italian 55	3.8181818181818183
Fast Food 152	3.6447368421052633

Step 4

business_id	name	postal_code	review_count
v4AMclZ--hXZuJlg3luUgg	Tamira	93101	778
TVX2a4bVuCE2VUIkiLdZrQ	Flavor of India	93105	501
BwUWmUfKCuJ-nN9vFwMt2Q	Himalayan Kitchen	93101	361
oinV9xrSkR3b_T8sK1nsqg	Bibi Ji	93101	260
-l7M6l0h46VdiN09Y1NUZw	Apna Indian Kitchen	93101	246
52ov7d0148JvYG78_c-Bsw	goa taco	93101	231
q6661l3CGW0UB740E5Zjfw	India House	93101	136
IAE5tMDs1XSudIEzG-Z3aA	Spice Avenue	93101	133
NynM3SwsOMFJryABCKuOlg	All India Cafe	93101	88
YgS10SCzw13uGiC0wTDiaQ	The Taj Cafe	93101	46

Step 5

user_id	name	review_count	fans
Hi10sGSZNxQH3NLyWSZ1oA	Fox	17473	3493
8k3aO-mPeyhbr5HUucA5aA	Victor	16978	1462
hWDybu_KvYLSdEFzGmiTw	Bruce	16567	867
RtGqdDBvvBCjcu5dUqwfa	Shila	12868	300
P5bUL3Engv-2z6kKohB6qQ	Kim	9941	825
nmdkHL2JKFx55T3nq5VziA	Nijole	8363	921
bQCHF5m5lMI9c5kEwCaNA	Vincent	8354	362
8RcEwGrFIgkt9WQ35E6SnQ	George	7738	288
Xwnf20FKuikiHcSpcEbpKQ	Kenneth	6766	285
CxDOIDnH8gp9KXzpBHJYXw	Jennifer	6679	828

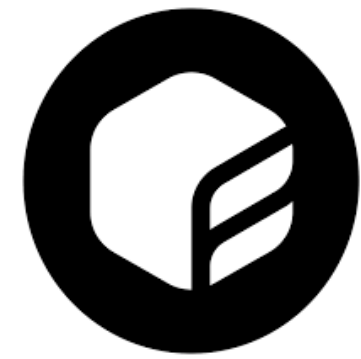
Mini Project 1



Key Skills Developed:

- Reading and interpreting JSON Data
- Converting JSON data to MySQL
- Updating MySQL tables by accessing API's
- Writing SQL commands to query data based on a central theme

Mini Project 2



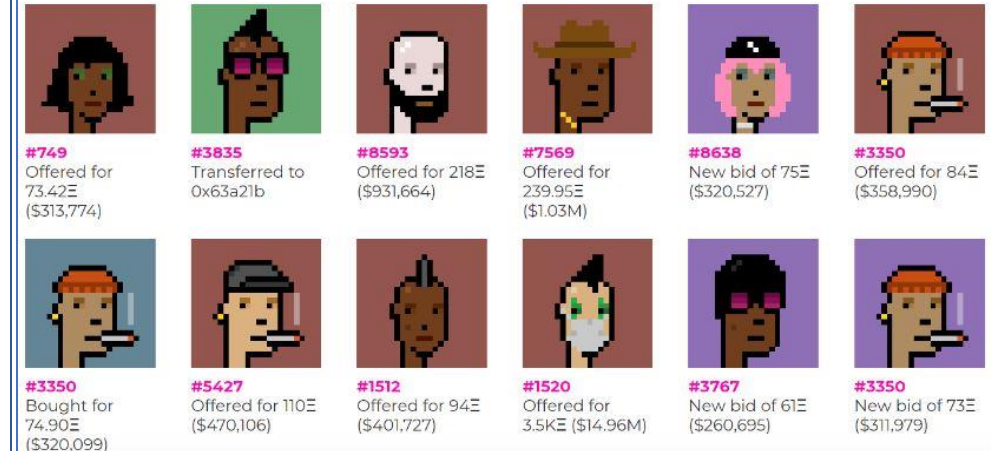
Objective: To interpret blockchain data with SQL and data modelling



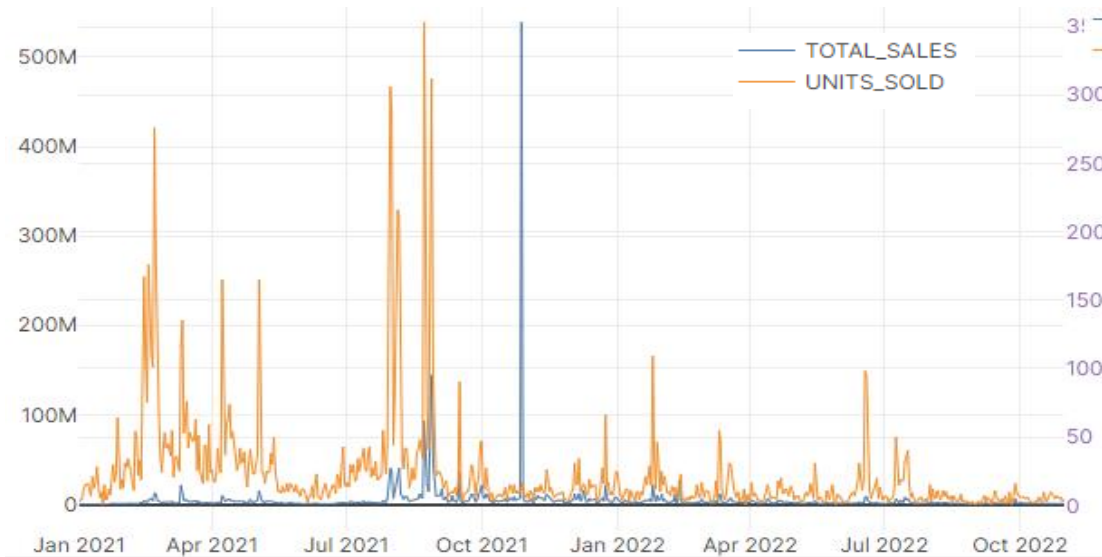
- Crypto Punks are a collection of 10,000 unique characters on the Ethereum blockchain. The project was launched by Larva Labs in 2017.
- The Crypto Punks NFT collection is believed to have inspired the ERC-721 standard that forms the bases of many digital art and collectibles.

Key Concepts Learnt and Key Skills Developed

- A primer on blockchains and crypto
- Learning about Ethereum
- Writing SQL queries on the Ethereum data model to gain useful insights
- Understanding data structures and labels on Flipside Crypto
- Querying blockchain databases on Flipside Crypto
- Writing queries and creating visualizations on Flipside Crypto
- Creating dashboards and publishing on Flipside Crypto



Mini Project 2



Crypto Punks Buyer Trends

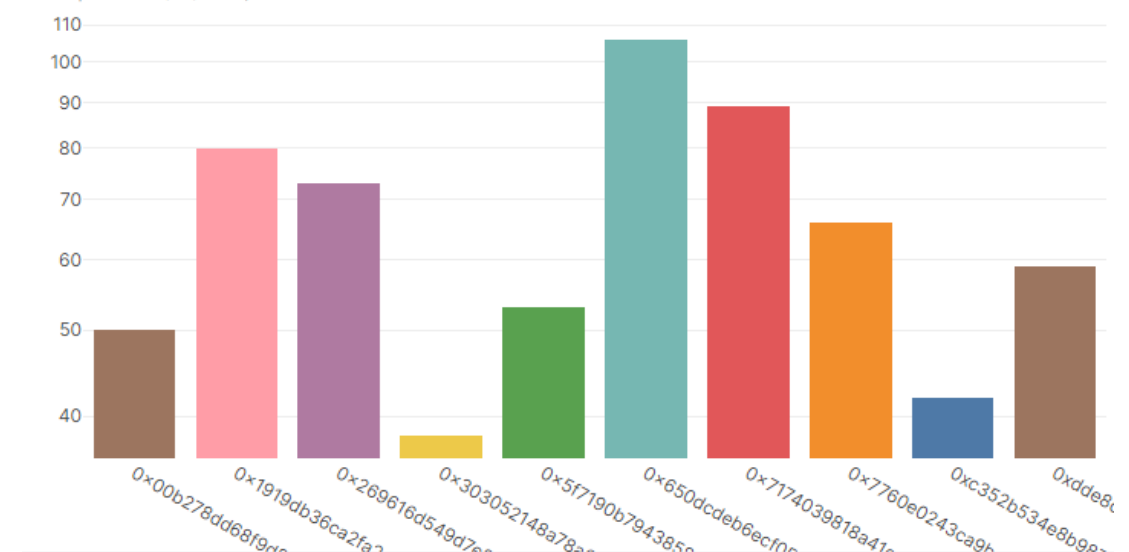
- Each punk collection holds 2 characters. We find out the top 10 Crypto Punk buyers by the number of collections each buyer holds.
- We observe that the highest buyer holds 106 collections while the lowest buyer holds 38 Crypto Punk collections.

Sales Trends of the NFT

- **Crypto Punks** sales saw a lot of activity between January 2021 and January 2022 but declined sharply after February 2022.
- In October 2021, the NFT generated **USD 539 million** in sales.

→ Top 10 Crypto Punk buyers by number of collections held

Last Updated: 11/18/2022, 5:31 PM



Mini Project 2



→ Number of punks sold above average punk sale price

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6210

→ Average Price of Punks in Eth

Last Updated: 11/18/2022, 5:31 PM

Eth

49.3

→ Average number of punks per collection

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1.97

Punk analysis

- We first found the **average price of punk** till date.
- Then we found the number of punks sold above the average price which is **more than 50% of all punks**
- The average number of punks per collection is **~2**
- The highest price punk ever sold was **44.6 million ethers**.

→ Highest priced punk collection

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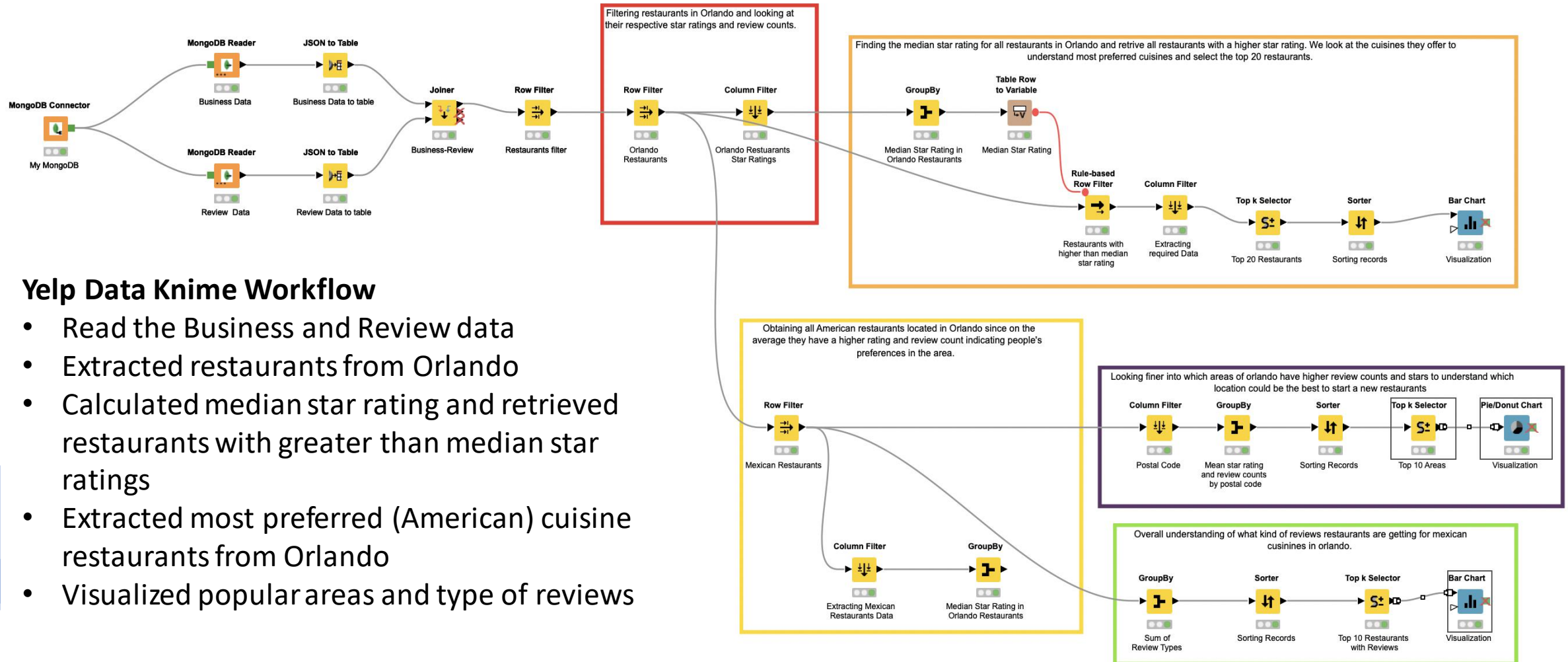
The highest price paid for a punk collection

44.6M

Mini Project 3

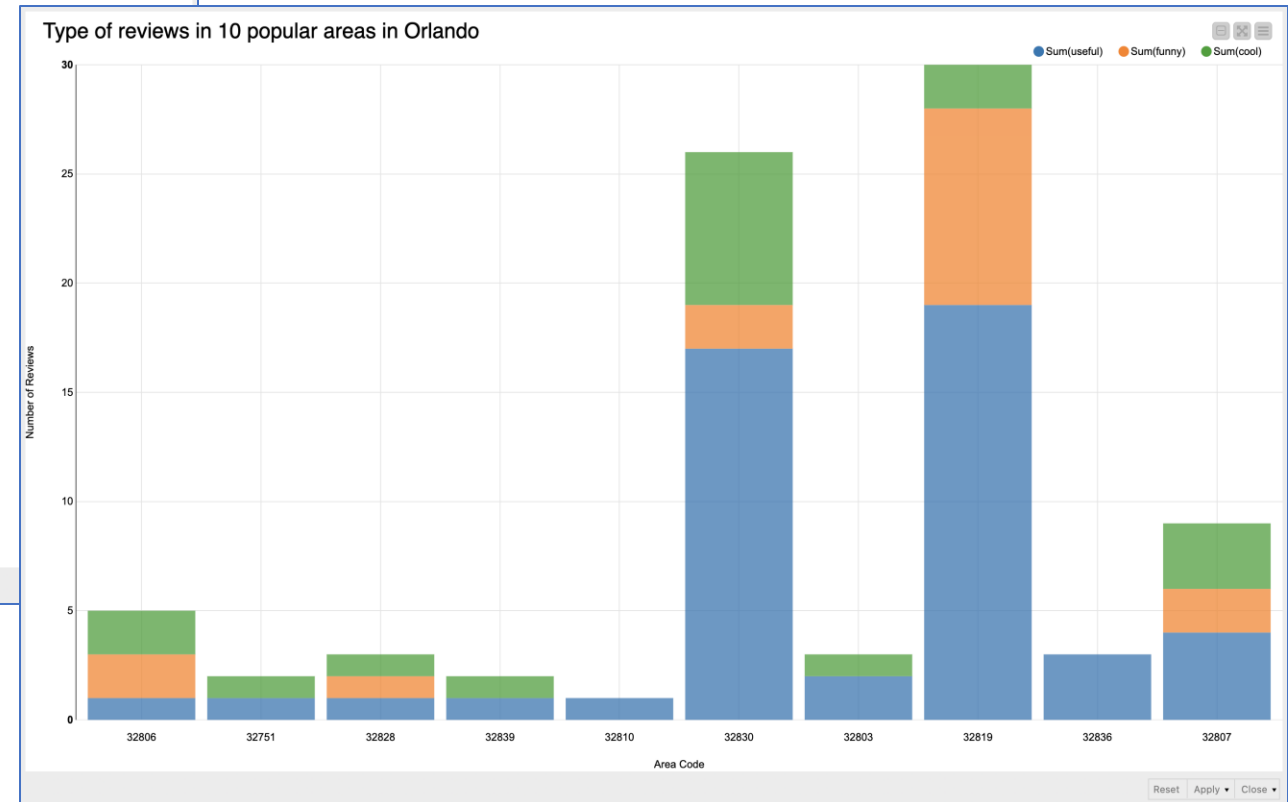
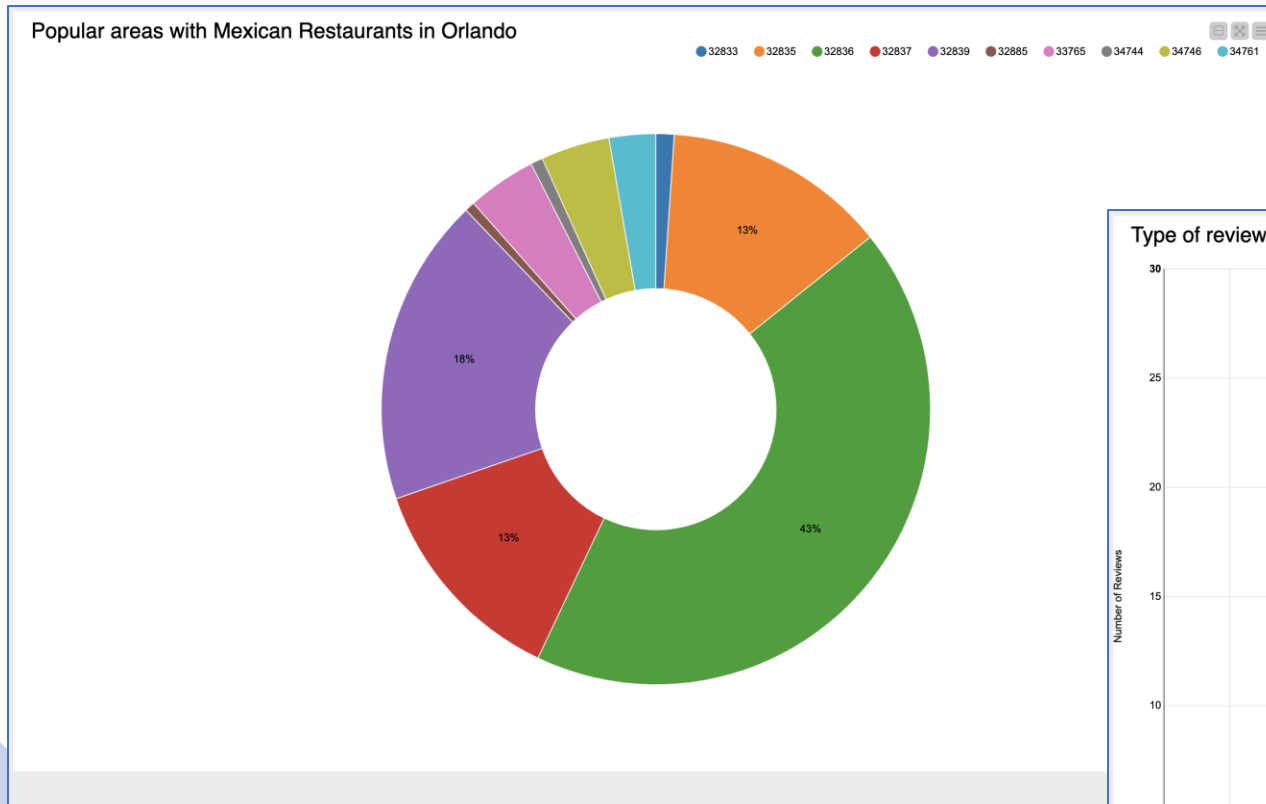


Objective: To perform data transformation operations using Knime

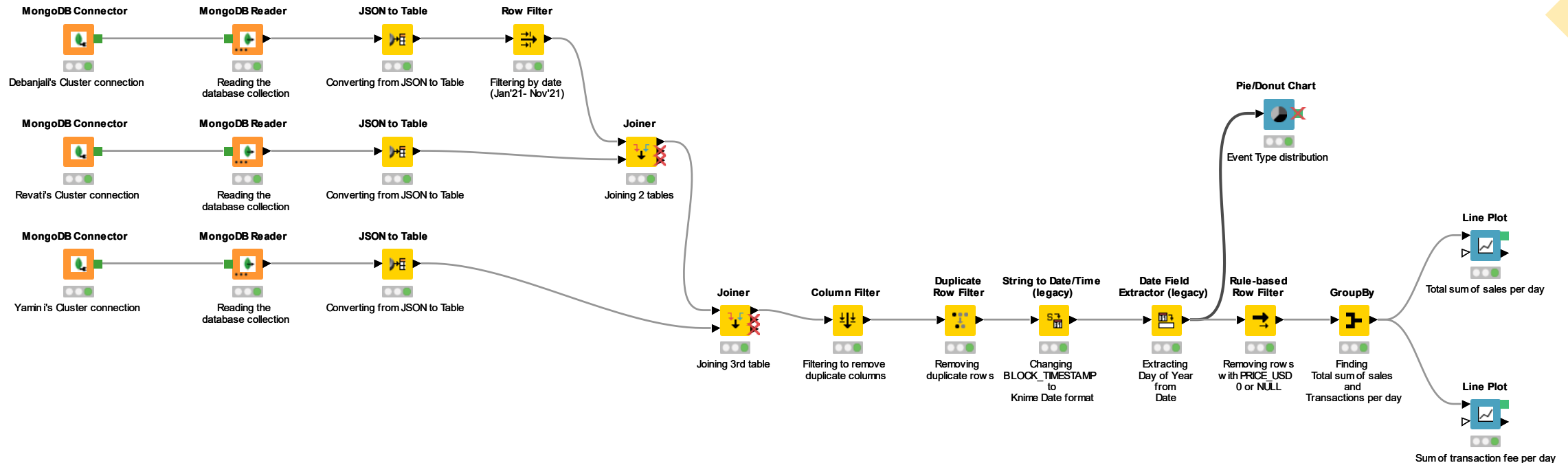


Mini Project 3

Yelp Data Knime Workflow Outputs



Mini Project 3

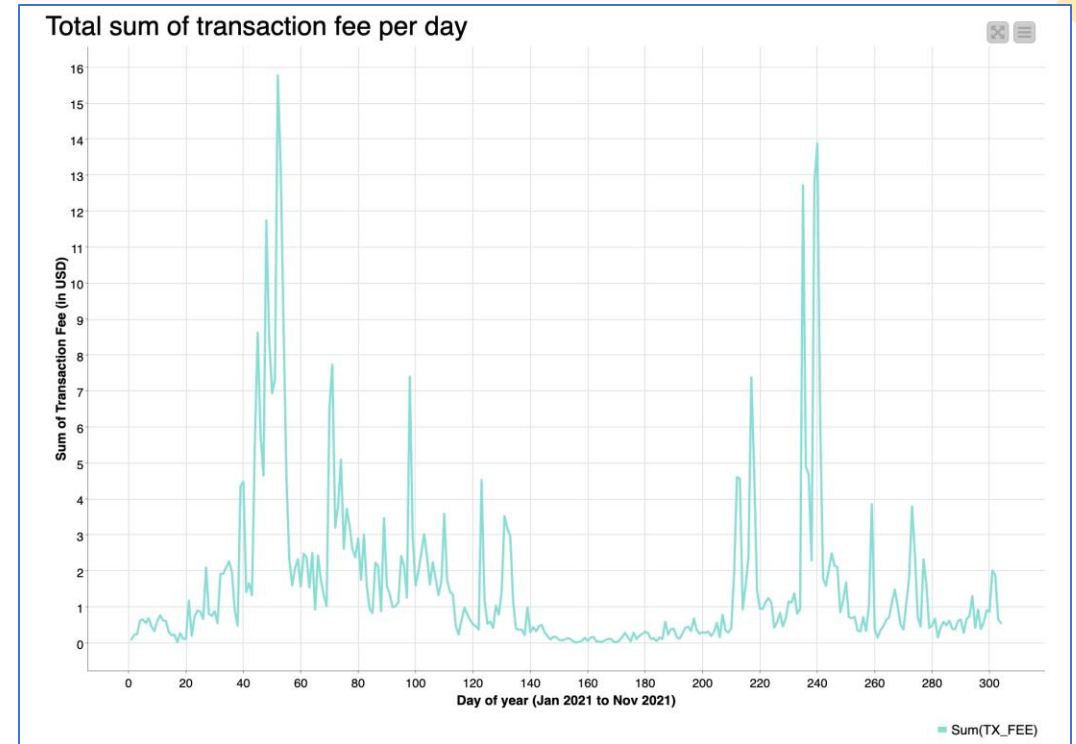
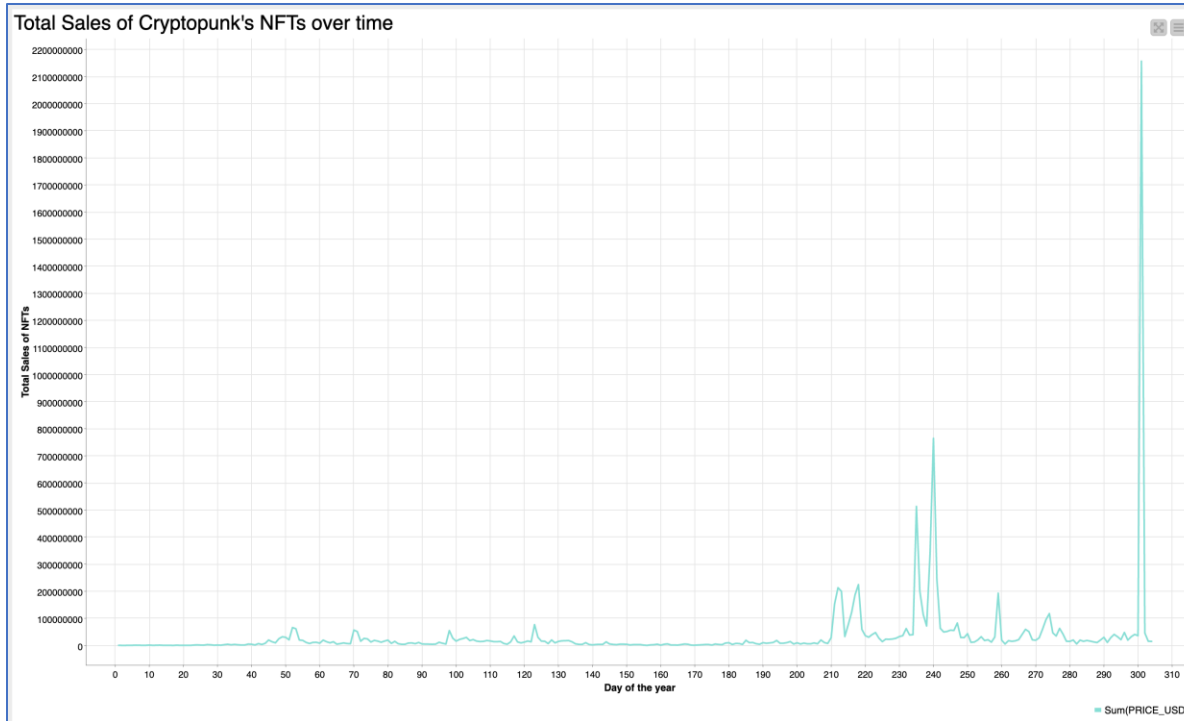


NFT Data Knime Workflow

- Joined Tables from each team members MongoDB clusters
- Basic data cleaning like removal of duplicates rows and columns
- Extracted day field from timestamps of the desired time frame to perform analysis
- Calculated total sales and transaction fee for sale of NFTs over time
- Visualized the distribution of event types for sale of NFTs in a pie chart

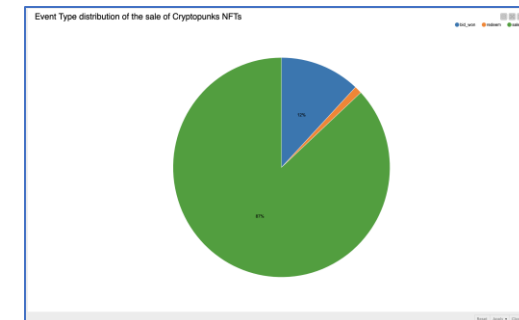
Mini Project 3

Yelp Data Knime Workflow Outputs



Key Skills Developed

- Hands-on experience with Knime
- Data transformation and manipulation using different type of nodes
- Visualizing total sales and transaction fees over time



Learnings and Challenges



Learnings

- Extraction of meaningful insights from large databases using SQL queries
- Understanding and working with tools such as Flipside Crypto, Knime and MongoDB to analyze and present findings
- Collaborative effort to tackle complex problems

Challenges

- Exploring and analyzing a new domain of blockchain and NFTs
- Merging data from different MongoDB clusters



Thank You

