

Flourish Cash (Group 9): SQL Queries

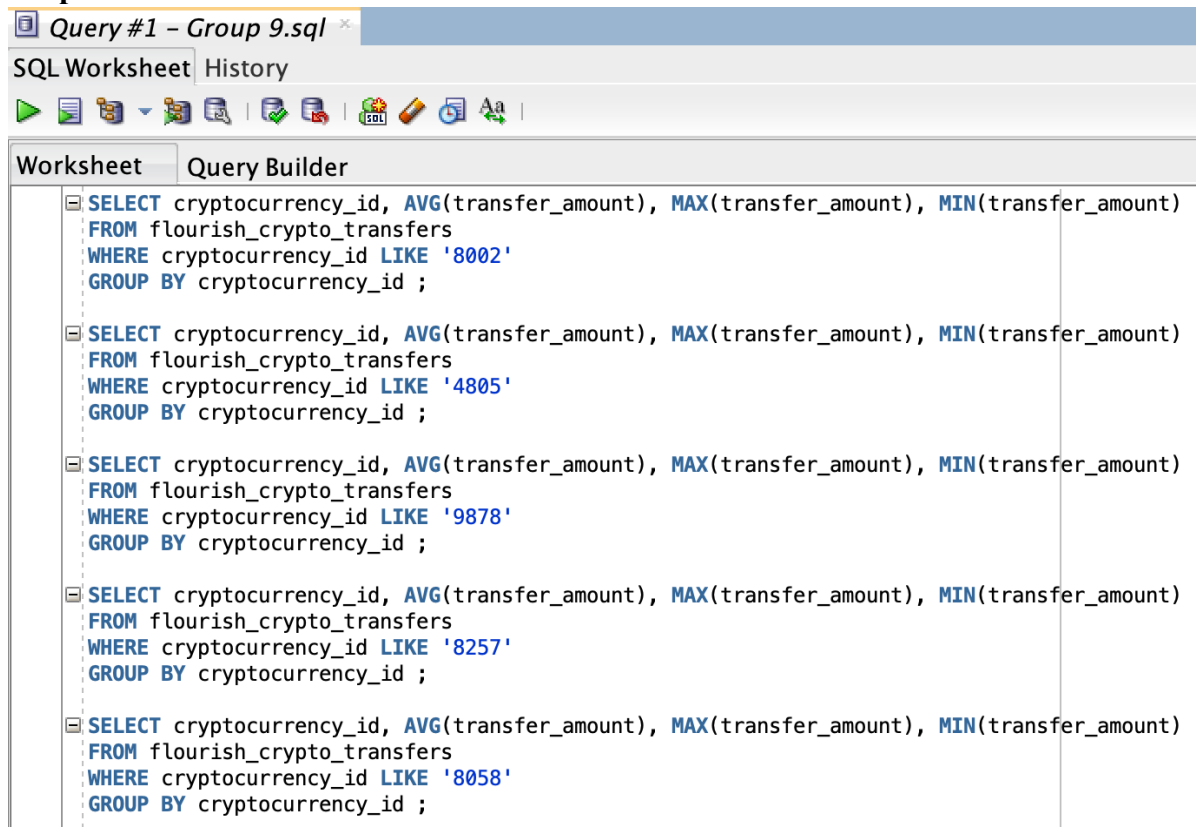
Business Problem: Cryptocurrency is booming. Whether viewed as a “hard” asset looking to replace the USD or Gold, or a new asset class meant to help diversify small-to-large investment portfolios, there is no telling what the potential growth of cryptocurrency may be in the coming future. The Direct Public Offering (DPO) of Coinbase (\$COIN) last week only reinforced this to our company.

Flourish Cash sees immense growth potential in our cryptocurrency business. The Flourish Cash platform currently supports 10 different cryptocurrencies, but for the purpose of growing our crypto business, we are looking to grow investment transfers into the following crypto coins: **Bitcoin, Ethereum, Litecoin, XRP (Ripple Coin), and Dogecoin**. With Bitcoin, Ethereum, Litecoin, XRP, and Dogecoin all hitting record highs these past couple of months, we look to capitalize off this momentum and try to drive more transfers from our traditional FDIC bank transfers to our cryptocurrency platform.

The following SQL queries are meant to help our company analyze how many cryptocurrency transfers there have been, the average, minimum, and maximum amounts invested into each cryptocurrency, and what users are currently investing in cryptocurrency with the Flourish Cash platform. We also look to provide more information to our customers regarding their investments into the FDIC program banks, and what their profits could have been had they invested that same money into cryptocurrency through our cryptocurrency platform.

SQL Query #1: This query is showing us the average, maximum, and minimum transfer amounts for each of the 5 cryptocurrencies mentioned above: **Bitcoin, Ethereum, Litecoin, XRP, and Dogecoin**.

Script:



```
Query #1 - Group 9.sql x
SQL Worksheet History
Worksheet Query Builder

SELECT cryptocurrency_id, AVG(transfer_amount), MAX(transfer_amount), MIN(transfer_amount)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '8002'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, AVG(transfer_amount), MAX(transfer_amount), MIN(transfer_amount)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '4805'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, AVG(transfer_amount), MAX(transfer_amount), MIN(transfer_amount)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '9878'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, AVG(transfer_amount), MAX(transfer_amount), MIN(transfer_amount)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '8257'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, AVG(transfer_amount), MAX(transfer_amount), MIN(transfer_amount)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '8058'
GROUP BY cryptocurrency_id ;
```

Script Output:

Script Output x			
Task completed in 0.327 seconds			
CRYPTOCURRENCY_ID	AVG(TRANSFER_AMOUNT)	MAX(TRANSFER_AMOUNT)	MIN(TRANSFER_AMOUNT)
8002	199.74	199.74	199.74
CRYPTOCURRENCY_ID	AVG(TRANSFER_AMOUNT)	MAX(TRANSFER_AMOUNT)	MIN(TRANSFER_AMOUNT)
4805	84.235	92.92	75.55
CRYPTOCURRENCY_ID	AVG(TRANSFER_AMOUNT)	MAX(TRANSFER_AMOUNT)	MIN(TRANSFER_AMOUNT)
9878	197.706667	289	145.15
CRYPTOCURRENCY_ID	AVG(TRANSFER_AMOUNT)	MAX(TRANSFER_AMOUNT)	MIN(TRANSFER_AMOUNT)
8257	14.01	14.01	14.01
CRYPTOCURRENCY_ID	AVG(TRANSFER_AMOUNT)	MAX(TRANSFER_AMOUNT)	MIN(TRANSFER_AMOUNT)
8058	106	155.14	56.86

SQL Query #2: This query is counting the total number of transfers for each of the 5 cryptocurrencies mentioned above: **Bitcoin, Ethereum, Litecoin, XRP, and Dogecoin.**

Script:

```
Query #2 - Group 9.sql x
SQL Worksheet History
Worksheet Query Builder
SELECT cryptocurrency_id, count(cryptocurrency_id)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '8002'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, count(cryptocurrency_id)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '4805'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, count(cryptocurrency_id)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '9878'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, count(cryptocurrency_id)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '8257'
GROUP BY cryptocurrency_id ;

SELECT cryptocurrency_id, count(cryptocurrency_id)
FROM flourish_crypto_transfers
WHERE cryptocurrency_id LIKE '8058'
GROUP BY cryptocurrency_id ;
```

Script Output:

Script Output x	
Task completed in 0.47 seconds	
CRYPTOCURRENCY_ID	COUNT(CRYPTOCURRENCY_ID)
8002	1
CRYPTOCURRENCY_ID	COUNT(CRYPTOCURRENCY_ID)
4805	2
CRYPTOCURRENCY_ID	COUNT(CRYPTOCURRENCY_ID)
9878	3
CRYPTOCURRENCY_ID	COUNT(CRYPTOCURRENCY_ID)
8257	1
CRYPTOCURRENCY_ID	COUNT(CRYPTOCURRENCY_ID)
8058	2

SQL Query #3: This query is showing the FDIC program bank ID, interest rate, transfer ID, transfer date, and transfer amount at each set interest rate interval. We look to show users what their profit could have been had they invested in one of the 5 cryptocurrencies mentioned previously, instead of investing their money at these historically low interest rates.

Script:

```
Query #3 - Group 9.sql x
SQL Worksheet History
Worksheet Query Builder
SELECT program_bank_id, interest_rate, transfer_id, transfer_date, transfer_amount
FROM flourish
NATURAL JOIN flourish_fdic_bank_transfers
WHERE interest_rate < 1.00
ORDER BY interest_rate ASC ;

SELECT program_bank_id, interest_rate, transfer_id, transfer_date, transfer_amount
FROM flourish
NATURAL JOIN flourish_fdic_bank_transfers
WHERE interest_rate BETWEEN 1.00 and 1.25
ORDER BY interest_rate ASC ;

SELECT program_bank_id, interest_rate, transfer_id, transfer_date, transfer_amount
FROM flourish
NATURAL JOIN flourish_fdic_bank_transfers
WHERE interest_rate BETWEEN 1.25 and 1.50
ORDER BY interest_rate ASC ;

SELECT program_bank_id, interest_rate, transfer_id, transfer_date, transfer_amount
FROM flourish
NATURAL JOIN flourish_fdic_bank_transfers
WHERE interest_rate BETWEEN 1.50 and 1.75
ORDER BY interest_rate ASC ;

SELECT program_bank_id, interest_rate, transfer_id, transfer_date, transfer_amount
FROM flourish
NATURAL JOIN flourish_fdic_bank_transfers
WHERE interest_rate BETWEEN 1.75 and 2.00
ORDER BY interest_rate ASC ;
```

Script Output:

Script Output

Task completed in 0.216 seconds

PROGRAM_BANK_ID	INTEREST_RATE	TRANSFER_ID	TRANSFER_	TRANSFER_AMOUNT
21264872	.98	3194999108	06-FEB-21	2589.59
10350682	.98	3194999108	22-DEC-20	3976.09

PROGRAM_BANK_ID	INTEREST_RATE	TRANSFER_ID	TRANSFER_	TRANSFER_AMOUNT
84472076	1.02	8206484831	22-FEB-21	5224.18
84472076	1.02	8797139562	19-DEC-20	5772.71
94822843	1.02	8797139562	01-FEB-21	985.4
56812760	1.02	8206484831	13-JAN-21	3566.52
93342305	1.02	7130696695	14-FEB-21	3416.86
17010512	1.02	7130696695	02-JAN-21	83.65
71917087	1.03	8909865805	28-DEC-20	608.12
65540332	1.03	8909865805	11-FEB-21	5853.77
21264872	1.23	5839088923	25-JAN-21	9903.26
17010512	1.23	5839088923	11-MAR-21	4293.96

10 rows selected.

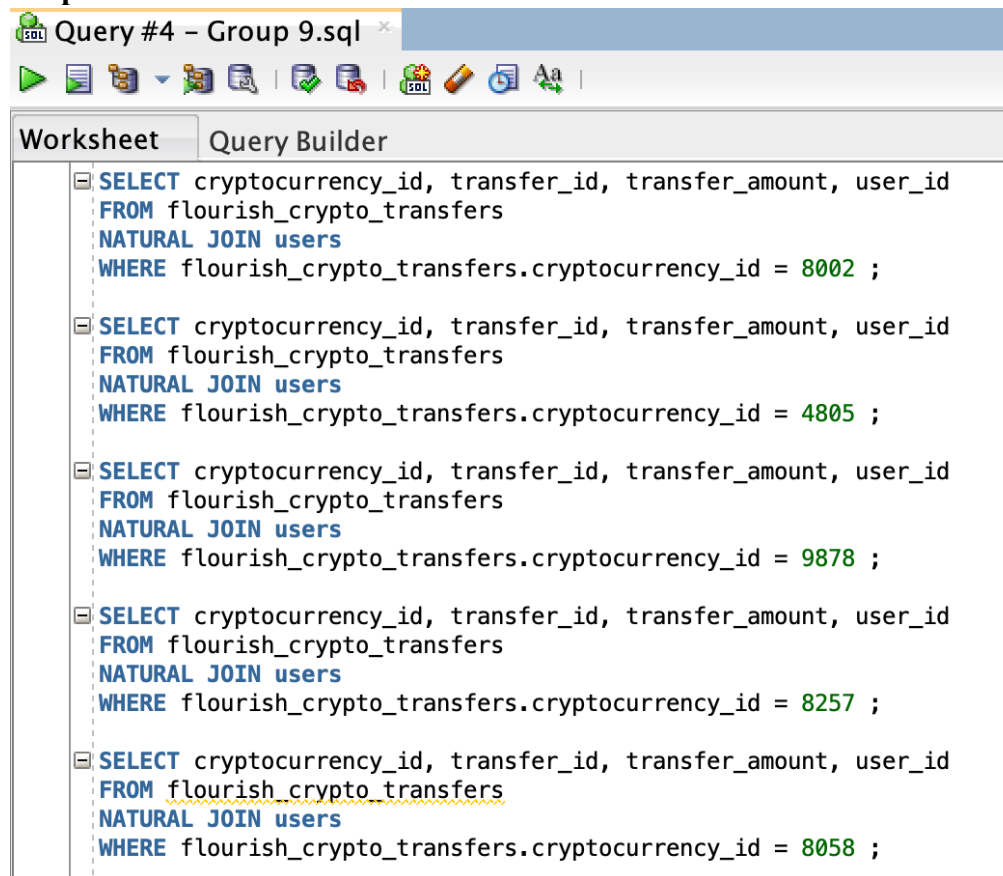
PROGRAM_BANK_ID	INTEREST_RATE	TRANSFER_ID	TRANSFER_	TRANSFER_AMOUNT
59410327	1.45	3853399833	17-MAR-21	6875.91
94822843	1.45	3853399833	31-JAN-21	4501.13

PROGRAM_BANK_ID	INTEREST_RATE	TRANSFER_ID	TRANSFER_	TRANSFER_AMOUNT
71917087	1.65	3829535183	05-MAR-21	4951.48
65540332	1.65	3829535183	19-JAN-21	7966.29
93342305	1.74	6799663900	16-JAN-21	8243.64
10350682	1.74	6799663900	23-FEB-21	7926.95

PROGRAM_BANK_ID	INTEREST_RATE	TRANSFER_ID	TRANSFER_	TRANSFER_AMOUNT
56812760	1.89	6802947269	20-FEB-21	8101.7
59410327	1.89	6802947269	11-JAN-21	3374.92

SQL Query #4: This query is providing information regarding what users and the associated transfer ID and transfer amounts are transferring money into each of the 5 cryptocurrencies mentioned above: **Bitcoin, Ethereum, Litecoin, XRP, and Dogecoin.**

Script:



```
SELECT cryptocurrency_id, transfer_id, transfer_amount, user_id
FROM flourish_crypto_transfers
NATURAL JOIN users
WHERE flourish_crypto_transfers.cryptocurrency_id = 8002 ;

SELECT cryptocurrency_id, transfer_id, transfer_amount, user_id
FROM flourish_crypto_transfers
NATURAL JOIN users
WHERE flourish_crypto_transfers.cryptocurrency_id = 4805 ;

SELECT cryptocurrency_id, transfer_id, transfer_amount, user_id
FROM flourish_crypto_transfers
NATURAL JOIN users
WHERE flourish_crypto_transfers.cryptocurrency_id = 9878 ;

SELECT cryptocurrency_id, transfer_id, transfer_amount, user_id
FROM flourish_crypto_transfers
NATURAL JOIN users
WHERE flourish_crypto_transfers.cryptocurrency_id = 8257 ;

SELECT cryptocurrency_id, transfer_id, transfer_amount, user_id
FROM flourish_crypto_transfers
NATURAL JOIN users
WHERE flourish_crypto_transfers.cryptocurrency_id = 8058 ;
```

Script Output:

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
8002	7130696695	199.74	1903651112
8002	7130696695	199.74	2234691697
8002	7130696695	199.74	3363945535
8002	7130696695	199.74	3707198642
8002	7130696695	199.74	3958330432
8002	7130696695	199.74	5237008374
8002	7130696695	199.74	7376042550
8002	7130696695	199.74	7527625548
8002	7130696695	199.74	7945462655
8002	7130696695	199.74	9123612279

10 rows selected.

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
4805	3829535183	75.55	1903651112
4805	3829535183	75.55	2234691697
4805	3829535183	75.55	3363945535
4805	3829535183	75.55	3707198642
4805	3829535183	75.55	3958330432
4805	3829535183	75.55	5237008374
4805	3829535183	75.55	7376042550
4805	3829535183	75.55	7527625548
4805	3829535183	75.55	7945462655
4805	3829535183	75.55	9123612279
4805	8797139562	92.92	1903651112

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
4805	8797139562	92.92	2234691697
4805	8797139562	92.92	3363945535
4805	8797139562	92.92	3707198642
4805	8797139562	92.92	3958330432
4805	8797139562	92.92	5237008374
4805	8797139562	92.92	7376042550
4805	8797139562	92.92	7527625548
4805	8797139562	92.92	7945462655
4805	8797139562	92.92	9123612279

20 rows selected.

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
9878	3194999108	158.97	1903651112
9878	3194999108	158.97	2234691697
9878	3194999108	158.97	3363945535
9878	3194999108	158.97	3707198642
9878	3194999108	158.97	3958330432
9878	3194999108	158.97	5237008374
9878	3194999108	158.97	7376042550
9878	3194999108	158.97	7527625548
9878	3194999108	158.97	7945462655
9878	3194999108	158.97	9123612279
9878	7130696695	289	1903651112

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
9878	7130696695	289	2234691697
9878	7130696695	289	3363945535
9878	7130696695	289	3707198642
9878	7130696695	289	3958330432
9878	7130696695	289	5237008374
9878	7130696695	289	7376042550
9878	7130696695	289	7527625548
9878	7130696695	289	7945462655
9878	7130696695	289	9123612279
9878	8797139562	145.15	1903651112
9878	8797139562	145.15	2234691697

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
9878	8797139562	145.15	3363945535
9878	8797139562	145.15	3707198642
9878	8797139562	145.15	3958330432
9878	8797139562	145.15	5237008374
9878	8797139562	145.15	7376042550
9878	8797139562	145.15	7527625548
9878	8797139562	145.15	7945462655
9878	8797139562	145.15	9123612279

30 rows selected.

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
8257	3829535183	14.01	1903651112
8257	3829535183	14.01	2234691697
8257	3829535183	14.01	3363945535
8257	3829535183	14.01	3707198642
8257	3829535183	14.01	3958330432
8257	3829535183	14.01	5237008374
8257	3829535183	14.01	7376042550
8257	3829535183	14.01	7527625548
8257	3829535183	14.01	7945462655
8257	3829535183	14.01	9123612279

10 rows selected.

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
8058	6799663900	155.14	1903651112
8058	6799663900	155.14	2234691697
8058	6799663900	155.14	3363945535
8058	6799663900	155.14	3707198642
8058	6799663900	155.14	3958330432
8058	6799663900	155.14	5237008374
8058	6799663900	155.14	7376042550
8058	6799663900	155.14	7527625548
8058	6799663900	155.14	7945462655
8058	6799663900	155.14	9123612279
8058	8909865805	56.86	1903651112

CRYPTOCURRENCY_ID	TRANSFER_ID	TRANSFER_AMOUNT	USER_ID
8058	8909865805	56.86	2234691697
8058	8909865805	56.86	3363945535
8058	8909865805	56.86	3707198642
8058	8909865805	56.86	3958330432
8058	8909865805	56.86	5237008374
8058	8909865805	56.86	7376042550
8058	8909865805	56.86	7527625548
8058	8909865805	56.86	7945462655
8058	8909865805	56.86	9123612279

20 rows selected.