Queries for questions from the business stakeholder:

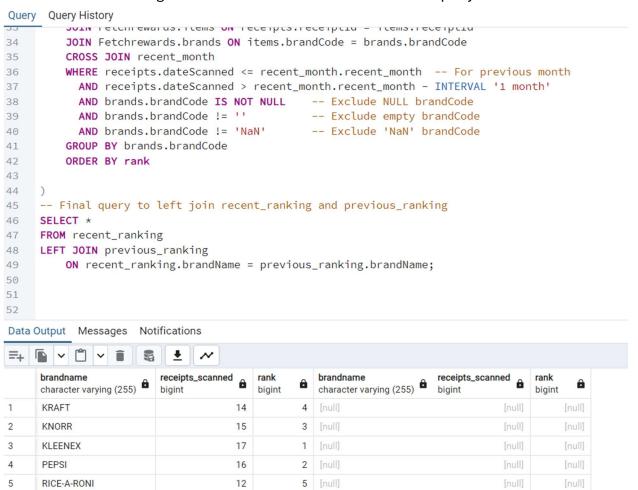
1. What are the top 5 brands by receipts scanned for most recent month?

NOTE: I am considering 2021-01-01 as the latest month for this query.

```
1 ~ WITH recent_month AS (
2
         SELECT
3
             '2021-01-01'::timestamp AS recent_month
4
 5
       SELECT
             brands.brandCode AS brandName,
 6
 7
             COUNT(DISTINCT receipts.receiptId) AS receipts_scanned,
             DENSE_RANK() OVER (ORDER BY COUNT(DISTINCT receipts.receiptId) DESC) AS rank
8
9
         FROM Fetchrewards.receipts
10
         JOIN Fetchrewards.items ON receipts.receiptId = items.receiptId
         JOIN Fetchrewards.brands ON items.brandCode = brands.brandCode
11
12
         CROSS JOIN recent_month
        WHERE receipts.dateScanned >= recent_month.recent_month -- For recent month
13
         AND receipts.dateScanned < recent_month.recent_month + INTERVAL '1 month'
14
          AND brands.brandCode IS NOT NULL -- Exclude NULL brandCode
15
          AND brands.brandCode != ''
                                             -- Exclude empty brandCode
16
           AND brands.brandCode != 'NaN' -- Exclude 'NaN' brandCode
17
18
         GROUP BY brands.brandCode
19
         ORDER BY rank
         LIMIT 5;
Data Output Messages Notifications
                          #
     brandname
                                       rank
                        receipts_scanned
                                              0
     character varying (255)
                                       bigint
1
     KLEENEX
                                    17
                                              1
2
     PEPSI
                                              2
                                    16
3
     KNORR
                                    15
                                              3
                                    14
                                              4
     KRAFT
```

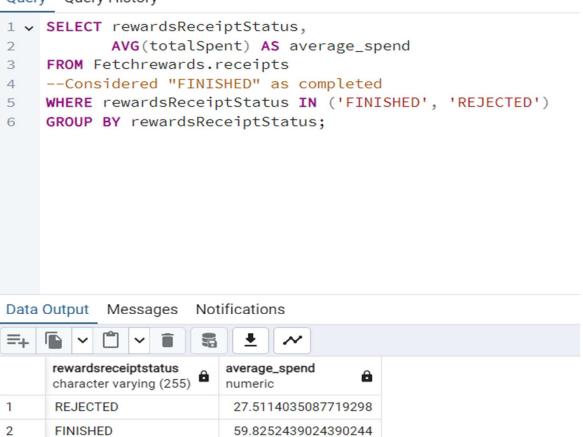
2. How does the ranking of the top 5 brands by receipts scanned for the recent month compared to the ranking for the previous month?

## NOTE: I am considering 2021-01-01 as the latest month for this query

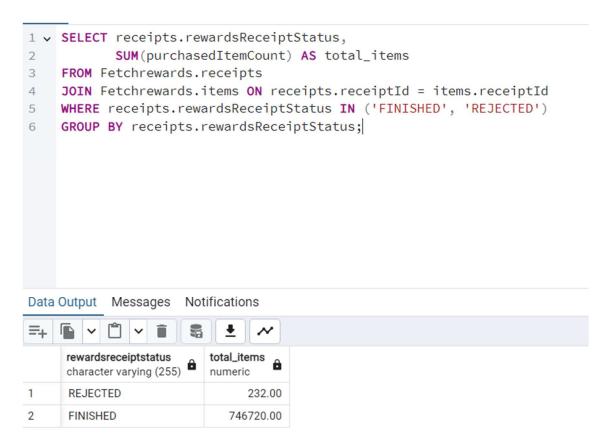


3. When considering average spend from receipts with 'rewardsReceiptStatus' of 'Accepted' or 'Rejected', which is greater?

Query Query History



4. When considering total number of items purchased from receipts with 'rewardsReceiptStatus' of 'Accepted' or 'Rejected', which is greater?



5. Which brand has the most spend among users who were created within the past 6 months?

```
1 - SELECT * FROM (
2
        SELECT
3
            items.brandCode,
4
             SUM(receipts.totalSpent) as summedTotalSpent
5
       FROM Fetchrewards.receipts
        INNER JOIN Fetchrewards.items ON receipts.receiptId = items.receiptId
6
7
         WHERE receipts.userId IN (
             SELECT userId
8
9
             FROM Fetchrewards.users
10
             WHERE createdDate > (
11
                 SELECT MAX(createdDate) - INTERVAL '6 months'
12
                 FROM Fetchrewards.users
13
             )
14
         )
15
         AND items.brandCode != 'NaN' -- Excluding NaN values
16
         AND items.brandCode IS NOT NULL -- Excluding NULL values
17
         GROUP BY items.brandCode
18
19
     ORDER BY summedTotalSpent DESC
20
     LIMIT 3;
Data Output Messages Notifications
=+ • • • •
                         <u>*</u> ~
                       summedtotalspent
     character varying (255)
                        numeric
     BEN AND JERRYS
                               197337.68
2
     KROGER
                               189181.47
     HY-VEE
                               178692.88
```

6. Which brand has the most transactions among users who were created within the past 6 months?

```
1 v SELECT * FROM (
2
         SELECT
3
              items.brandCode,
             COUNT(items.receiptId) as transaction_count
4
         FROM Fetchrewards.receipts
5
         INNER JOIN Fetchrewards.items ON receipts.receiptId = items.receiptId
 6
         WHERE receipts.userId IN (
7
             SELECT userId
8
             FROM Fetchrewards.users
9
             WHERE createdDate > (
10
11
                  SELECT MAX(createdDate) - INTERVAL '6 months'
                  FROM Fetchrewards.users
12
13
              )
14
         AND items.brandCode != 'NaN' -- Excluding NaN values
15
         AND items.brandCode IS NOT NULL -- Excluding NULL values
         GROUP BY items.brandCode
17
18
     ORDER BY transaction_count DESC
19
20
     LIMIT 3;
21
Data Output Messages Notifications
=+
                         transaction_count
     brandcode
     character varying (255)
                         bigint
     HY-VEE
1
                                     291
2
     BEN AND JERRYS
                                     100
3
     PEPSI
                                      74
```