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

```
WITH cte AS
(
SELECT ri.brandCode , COUNT(*)
FROM fact_receipts r
JOIN fact_receipt_items_bridge ri ON r.oid = ri.oid
WHERE
        ri.brandCode IS NOT NULL
AND STRFTIME('%Y-%m',r.dateScanned) = (SELECT STRFTIME('%Y-%m',
MAX(createDate)) FROM receipts)
GROUP BY ri.brandCode
ORDER BY COUNT(*) DESC
LIMIT 5
)
SELECT * from cte;
```

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

```
WITH curr_month AS
(
SELECT ri.brandCode, COUNT(*) as current_month_count
FROM fact_receipts r
JOIN fact_receipt_items_bridge ri ON r.oid = ri.oid
WHERE
    ri.brandCode IS NOT NULL
 AND STRFTIME('%Y-%m', r.dateScanned) = STRFTIME('%Y-%m', (SELECT
MAX(dateScanned) FROM receipts))
GROUP BY ri.brandCode
ORDER BY COUNT(*) DESC
LIMIT 5
),
prev_month AS
(
SELECT ri.brandCode , COUNT(*) as previous_month_count
FROM fact_receipts r
JOIN fact_receipt_items_bridge ri ON r.oid = ri.oid
JOIN curr_month cm ON cm.brandCode = ri.brandCode
WHERE
    ri.brandCode IS NOT NULL
 AND STRFTIME('%Y-%m', r.dateScanned) = STRFTIME('%Y-%m', (SELECT
MAX(dateScanned) FROM receipts) - INTERVAL '1 month')
```

```
            GROUP BY ri.brandCode
            ORDER BY COUNT(*) DESC
            LIMIT 5
            )
            SELECT
                cm.brandCode,
                cm.current_month_count,
                pm.previous_month_count,
                RANK() OVER (ORDER BY cm.current_month_count DESC) as
current_month_rank,
                RANK() OVER (ORDER BY pm.previous_month_count DESC) as
previous_month_rank
            FROM curr_month cm
            LEFT JOIN prev_month pm ON cm.brandCode = pm.brandCode;
```

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

```
            WITH SpendSums AS (
                SELECT
                    SUM(CASE WHEN rewardsReceiptStatus = 'FINISHED' THEN
CAST(totalSpent AS FLOAT) ELSE 0 END) AS accepted_sum,
                    SUM(CASE WHEN rewardsReceiptStatus = 'REJECTED' THEN
CAST(totalSpent AS FLOAT) ELSE 0 END) AS rejected_sum,
                    COUNT(CASE WHEN rewardsReceiptStatus = 'FINISHED' THEN 1 ELSE
NULL END) AS accepted_count,
                    COUNT(CASE WHEN rewardsReceiptStatus = 'REJECTED' THEN 1 ELSE
NULL END) AS rejected_count
                FROM fact_receipts
            )
            SELECT
                accepted_sum / accepted_count AS avg_accepted_spend,
                rejected_sum / rejected_count AS avg_rejected_spend,
                CASE
                    WHEN accepted_sum / accepted_count > rejected_sum / rejected_count
THEN 'Accepted'
                    WHEN rejected_sum / rejected_count > accepted_sum / accepted_count
THEN 'Rejected'
                    ELSE 'Equal'
                END AS greater_avg_spend
            FROM SpendSums;
```

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

```
WITH items_counts AS (
    SELECT
        SUM(CASE WHEN rewardsReceiptStatus = 'FINISHED' THEN
CAST(purchasedItemCount AS FLOAT) ELSE 0 END) AS accepted_items_counts,
        SUM(CASE WHEN rewardsReceiptStatus = 'REJECTED' THEN
CAST(purchasedItemCount AS FLOAT) ELSE 0 END) AS rejected_items_counts,
        FROM fact_receipts
)
SELECT
    accepted_items_counts,
    rejected_items_counts,
    CASE
        WHEN accepted_items_counts > rejected_items_counts THEN 'Accepted'
        WHEN accepted_items_counts < rejected_items_counts THEN 'Rejected'
        ELSE 'Equal'
    END AS greater_items_counts
FROM items_counts;
```

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

```
WITH RecentUsers AS (
    SELECT oid
    FROM dim_user
    WHERE CAST(createdDate AS DATE) >= CAST((SELECT
MAX(dateScanned) FROM receipts) AS DATE) - INTERVAL '6 months'
),
BrandSpend AS (
    SELECT
        ri.brandCode,
        SUM(CAST(ri.finalPrice AS FLOAT)) as total_spend
    FROM fact_receipt_items_bridge ri
    JOIN fact_receipts r ON ri.oid = r.oid
    JOIN RecentUsers ru ON r.userId = ru.oid
    WHERE ri.brandCode IS NOT NULL
    GROUP BY ri.brandCode
)
SELECT brandCode, total_spend
FROM BrandSpend
ORDER BY total_spend DESC
```

```
                LIMIT 1;
```

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

```
                WITH RecentUsers AS (
                    SELECT oid
                    FROM dim_user
                    WHERE CAST(createdDate AS DATE) >= CAST((SELECT
MAX(dateScanned) FROM receipts) AS DATE) - INTERVAL '6 months'
                ),
                BrandTransactions AS (
                    SELECT
                        ri.brandCode,
                        COUNT(*) as transaction_count
                    FROM fact_receipt_items_bridge ri
                    JOIN fact_receipts r ON ri.oid = r.oid
                    JOIN RecentUsers ru ON r.userId = ru.oid
                    WHERE ri.brandCode IS NOT NULL
                    GROUP BY ri.brandCode
                )
                SELECT brandCode, transaction_count
                FROM BrandTransactions
                ORDER BY transaction_count DESC
                LIMIT 1;
```