SQL QUERIES

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

Ans:

Select a.brandcode, count(a.brandcode) as freq
from rewardsreceiptitemlist as a
join receipt as b
on a.receipt_id = b.receipt_id
where month(b.datescanned) in (select month(max(datescanned)) from receipt)
group by a.brandcode
order by count(a.brandcode) desc
limit 5;

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

Ans:

With top5_m1 as (Select a.brandcode, count(a.brandcode) as freq,
from rewardsreceiptitemlist as a
join receipt as b
on a.receipt_id = b.receipt_id
where month(b.datescanned) in (select month(max(datescanned)) from receipt)
group by a.brandcode
order by count(a.brandcode) desc
limit 5),

top5_m2 as (Select a.brandcode, count(a.brandcode) as freq
from rewardsreceiptitemlist as a
join receipt as b
on a.receipt_id = b.receipt_id
where month(b.datescanned) in (select distinct month(datescanned) from receipt order by datescanned
desc offset 1 limit 1)
group by a.brandcode
order by count(a.brandcode) desc),

M3 as (select top5_m1.*, row_number over(order by freq desc) as rank from top5_m1),

M4 as (select top5_m2.*, row_number over(order by freq desc) as rank form top5_m2),

Final as (select A.*, B.rank as rank_older_month, A.rank – B.rank as rank_diff from M3 A join M4 B on
A.brandcode=B.brandcode)

Select * from Final;

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

Ans:

```
select rewardsreceiptstatus, avg(totalspend) as mean
from receipts
where rewardsreceiptstatus in ('Accepted','Rejected')
group by rewardsreceiptstatus
order by avg(totalspend) desc;
```

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

Ans:

```
Select c.rewardsreceiptstatus, sum(quantity) as final_quantity
from (

Select a.receipt_id, a.rewardsreceiptstatus, b.quantitypurchased
from receipt as a
join rewardsreceiptitemlist as b
on a.receipt_id = b.receipt_id
where rewardsreceiptstatus in ('Accepted','Rejected')          ) as c

Group by c.rewardsreceiptstatus
order by sum(quantity) desc;
```

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

Ans:

```
Select b.brandcode, sum(a.totalspent) as total
from receipts as a
join rewardsreceiptitemlist as b
on a.receipt_id = b.receipt_id
where a.user_id in (Select distinct user_id from users
where createdate > dateadd(MONTH, -6,  (select MAX(date) from users)) ) and b.brandcode is
not NULL
Group by b.brandcode
order by sum(a.totalspent) desc
limit 1;
```

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

Ans:

Select b.brandcode, count(a.receipt_id) as frequency
from receipts as a
join rewardsreceiptitemlist as b
on a.receipt_id = b.receipt_id
where a.user_id in (Select distinct user_id from users
where createdate > dateadd(MONTH, -6, (select MAX(date) from users))) and b.brandcode is not NULL
Group by b.brandcode
order by count(a.receipt_id) desc
limit 1;