

Second: Write queries that directly answer predetermined questions from a business stakeholder

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

```
Select case
when AVG(CASE WHEN r. rewardsReceiptStatus = 'Accepted' then t.total_spent END) >
      AVG(CASE WHEN r. rewardsReceiptStatus = 'Rejected' then t.total_spent END)
      THEN 'Accepted'
      ELSE 'Rejected'
END AS most_average_spend
from receipts r
join transaction t
on r.receipt_id = t.receipt_id
```

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

```
Select case
when SUM(CASE WHEN r. rewardsReceiptStatus = 'Accepted' then t. purchasedItemCount
END) >
      SUM(CASE WHEN r. rewardsReceiptStatus = 'Rejected' then t. purchasedItemCount
END)
      THEN 'Accepted'
      ELSE 'Rejected'
END AS most_item_counts
from receipts r
join transaction t
on r.receipt_id = t.receipt_id
```

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

```
With most_spend as (  
  Select b.name as brand_name, sum(t.total_spent) as most_spend  
  from receipt r  
  join transaction t  
  on r.receipt_id = t.receipt_id  
  join brand b  
  on t.brand_id = b.brand_id  
  where r.createDate >= CURRENT_DATE() - INTERVAL '6 months'  
  group by b.brand_id  
)  
spend_rank as  
(  
  Select brand_name, most_spend, dense_rank() over (order by most_spend desc) sp_rank  
  from most_spend  
)  
Select brand_name  
from spend_rank  
where sp_rank = 1
```

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

```
With most_transactions as (  
  Select b.name as brand_name, count(t.receipt_id) as transaction_count  
  from receipt r  
  join transaction t  
  on r.receipt_id = t.receipt_id  
  join brand b  
  on t.brand_id = b.brand_id  
  where r.createDate >= CURRENT_DATE() - INTERVAL '6 months'  
  group by b.brand_id  
)  
transaction_rank as  
(  
  Select brand_name, most_spend, dense_rank() over (order by transaction_count desc)  
  t_rank  
  from most_transactions  
)  
Select brand_name  
from transaction_rank  
where t_rank = 1
```