### **1) What are the top 5 brands by receipts scanned for most recent month?**

select

item.brandCode,

count(distinct item.receipt\_id) as scanned\_count

from

item inner join receipt

on item.receipt\_id = receipt.receipt\_id

where date(receipt.dateScanned) >= date\_format(curdate(),'%Y-%m-01')

group by item.brandCode

order by scanned\_count desc

limit 5

### **2) 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

current\_month\_top as (

select

item.brandCode,

count(distinct item.receipt\_id) as scanned\_count\_current

from

item inner join receipt

on item.receipt\_id = receipt.receipt\_id

where date(receipt.dateScanned) >= date\_format(curdate(),'%Y-%m-01')

group by item.brandCode

order by scanned\_count\_current desc

limit 5

),

prev\_month\_top as(

select

item.brandCode,

count(distinct item.receipt\_id) as scanned\_count\_prev

from

item inner join receipt

on item.receipt\_id = receipt.receipt\_id

where

date(receipt.dateScanned)>= date\_format(date\_add(curdate(), interval -1 month),'%Y-%m-01')

and

date(receipt.dateScanned) < date\_format(curdate(),'%Y-%m-01')

group by item.brandCode

order by scanned\_count\_prev desc

limit 5

)

select \*

from

current\_month\_top outer join prev\_month\_top

on current\_month\_top.brandCode = prev\_month\_top.brandCode

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

select

rewardsReceiptStatus, avg(totalSpent) as average\_spend\_each\_status

from receipt

where rewardsReceiptStatus in ('Accepted','Rejected')

group by rewardsReceiptStatus

order by average\_spend\_each\_status desc

limit 1

### **4) When considering total number of items purchased from receipts with 'rewardsReceiptStatus’ of ‘Accepted’ or ‘Rejected’, which is greater?**

select

rewardsReceiptStatus, sum(purchasedItemCount) as total\_purchased\_each\_status

from receipt

where rewardsReceiptStatus in ('Accepted','Rejected')

group by rewardsReceiptStatus

order by total\_purchased\_each\_status desc

limit 1

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

select

item.brandCode,

sum(receipt.totalSpent) as total\_spend\_each\_brand

from receipt inner join user

on receipt.user\_id = user.user\_id

inner join item on receipt.receipt\_id = item.receipt\_id

where

date(user.createdDate)>=date\_format(date\_add(curdate(), interval -6 MONTH),'%Y-%m-01')

group by item.brandCode

order by total\_spend\_each\_brand desc

limit 1

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

select

item.brandCode,

count(distinct item.receipt\_id) as transactions\_count

from

receipt inner join user

on receipt.user\_id = user.user\_id

inner join item on receipt.receipt\_id = item.receipt\_id

where

date(user.createdDate)>=date\_format(date\_add(curdate(), interval -6 MONTH),'%Y-%m-01')

group by item.brandCode

order by transactions\_count desc

limit 1