Q1： Which brand saw the most dollars spent in the month of June

Since I’m not sure which June I should look at, I basically get the highest price of June in each year (2021, 2022)

(

SELECT brand\_name,yr\_mth, total\_spend

FROM (

SELECT total\_spend,brand\_name, yr\_mth , DENSE\_RANK() OVER(ORDER BY total\_spend DESC) AS dr

FROM (

SELECT SUM(TOTAL\_FINAL\_PRICE\*QUANTITY\_PURCHASED) AS total\_spend, b.NAME AS brand\_name, DATE\_FORMAT(MODIFY\_DATE, '%Y-%m') AS yr\_mth

FROM fetch\_oa.brands b LEFT JOIN fetch\_oa.receipt\_items ri ON b.BRAND\_CODE = ri.BRAND\_CODE AND DATE\_FORMAT(MODIFY\_DATE, '%Y-%m') = '2021-06'

GROUP BY REWARDS\_RECEIPT\_ITEM\_ID

) temp1

)temp2

WHERE dr = 1

)

UNION ALL

(

SELECT brand\_name,yr\_mth, total\_spend

FROM (

SELECT total\_spend,brand\_name, yr\_mth , DENSE\_RANK() OVER(ORDER BY total\_spend DESC) AS dr

FROM (

SELECT SUM(TOTAL\_FINAL\_PRICE\*QUANTITY\_PURCHASED) AS total\_spend, b.NAME AS brand\_name, DATE\_FORMAT(MODIFY\_DATE, '%Y-%m') AS yr\_mth

FROM fetch\_oa.brands b LEFT JOIN fetch\_oa.receipt\_items ri ON b.BRAND\_CODE = ri.BRAND\_CODE AND DATE\_FORMAT(MODIFY\_DATE, '%Y-%m') = '2022-06'

GROUP BY REWARDS\_RECEIPT\_ITEM\_ID

) temp1

)temp2

WHERE dr = 1

)

Q2: Which user spent the most money in the month of August

Similar to the previous question, since I don’t know the August of which year, I found the result for both year.

(

SELECT total\_spend, yr\_mth

FROM (

    SELECT total\_spend, yr\_mth, DENSE\_RANK() OVER(ORDER BY total\_spend DESC) AS dr

    FROM (

        SELECT SUM(TOTAL\_SPENT) AS total\_spend, DATE\_FORMAT(CREATE\_DATE,'%Y-%m') AS yr\_mth

        FROM users u LEFT JOIN receipts r ON u.ID = r.USER\_ID AND DATE\_FORMAT(CREATE\_DATE,'%Y-%m') = '2021-08'

        GROUP BY u.ID

    ) temp1

)temp2

WHERE dr = 1

)

UNION ALL

(

SELECT total\_spend, yr\_mth

FROM (

    SELECT total\_spend, yr\_mth, DENSE\_RANK() OVER(ORDER BY total\_spend DESC) AS dr

    FROM (

        SELECT SUM(TOTAL\_SPENT) AS total\_spend, DATE\_FORMAT(CREATE\_DATE,'%Y-%m') AS yr\_mth

        FROM users u LEFT JOIN receipts r ON u.ID = r.USER\_ID AND DATE\_FORMAT(CREATE\_DATE,'%Y-%m') = '2022-08'

        GROUP BY u.ID

    ) temp1

)temp2

WHERE dr = 1

)

Q3: What user bought the most expensive item?

SELECT \*

FROM(

    SELECT u.ID, product\_name, total\_spend, DENSE\_RANK() OVER(ORDER BY total\_spend DESC) AS dr

    FROM (

        SELECT u.ID, ri.ORIGINAL\_RECEIPT\_ITEM\_TEXT AS product\_name, TOTAL\_FINAL\_PRICE AS total\_spend

        FROM users u LEFT JOIN receipts r ON u.ID = r.USER\_ID LEFT JOIN receipt\_item ri ON r.ID = ri.REWARDS\_RECEIPT\_ID

        GROUP BY u.ID, REWARDS\_RECEIPT\_ID

    ) temp1

) temp2

WHERE dr = 1

Q4: What is the name of the most expensive item purchased?

Calculating each product’s price by using the total final price divided by the quantity purchased

SELECT DISTINCT product\_name

FROM (

    SELECT product\_name, DENSE\_RANK() OVER(ORDER BY each\_price DESC) AS dr

    FROM (

        SELECT ORIGINAL\_RECEIPT\_ITEM\_TEXT AS product\_name,

        TOTAL\_FINAL\_PRICE/QUANTITY\_PURCHASED AS each\_price

        FROM receipt\_item

    ) temp1

) temp2

WHERE dr = 1

Q5: How many users scanned in each month?

SELECT DATE\_FORMAT(PURCHASE\_DATE, '%Y-%m') AS yr\_mth, COUNT(ID) AS total\_scanned

FROM receipts

GROUP BY DATE\_FORMAT(PURCHASE\_DATE, '%Y-%m')

ORDER BY DATE\_FORMAT(PURCHASE\_DATE, '%Y-%m')