

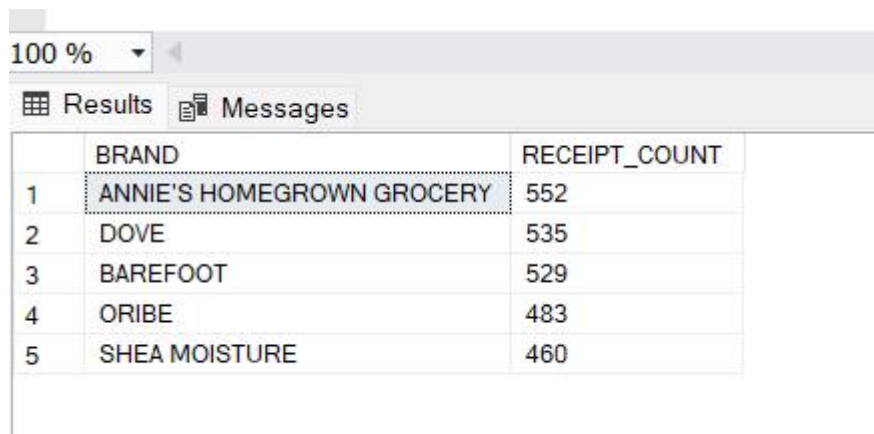
Second: Provide SQL queries

Closed-ended questions:

1) Top 5 brands by receipts scanned among users 21 and over ?

```
SELECT TOP 5 p.BRAND, COUNT(t.RECEIPT_ID) AS RECEIPT_COUNT
FROM TRANSACTIONS t
JOIN USERS u ON t.USER_ID = u.ID
JOIN PRODUCTS p ON t.BARCODE = p.BARCODE
WHERE u.AGE >= 21
AND BRAND <> 'BRAND NOT KNOWN'
GROUP BY p.BRAND
ORDER BY RECEIPT_COUNT DESC;
```

Output:



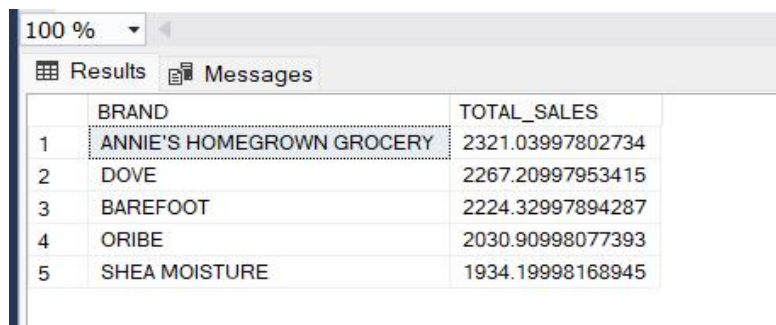
The screenshot shows a SQL Server query results window. The 'Results' tab is active, displaying a table with two columns: 'BRAND' and 'RECEIPT_COUNT'. The table is sorted in descending order of 'RECEIPT_COUNT'. The top 5 brands are listed with their respective counts.

	BRAND	RECEIPT_COUNT
1	ANNIE'S HOMEGROWN GROCERY	552
2	DOVE	535
3	BAREFOOT	529
4	ORIBE	483
5	SHEA MOISTURE	460

2) What are the top 5 brands by sales among users that have had their account for at least six months?

```
SELECT TOP 5 p.BRAND, SUM(t.FINAL_SALE) AS TOTAL_SALES
FROM TRANSACTIONS t
JOIN USERS u ON t.USER_ID = u.ID
JOIN PRODUCTS p ON t.BARCODE = p.BARCODE
WHERE u.CREATED_DATE <= DATEADD(MONTH, -6, GETDATE())
AND BRAND <> 'BRAND NOT KNOWN'
GROUP BY p.BRAND
ORDER BY TOTAL_SALES DESC;
```

Output:



The screenshot shows a SQL Server query results window. The 'Results' tab is active, displaying a table with two columns: 'BRAND' and 'TOTAL_SALES'. The table is sorted in descending order of 'TOTAL_SALES'. The top 5 brands are listed with their respective total sales.

	BRAND	TOTAL_SALES
1	ANNIE'S HOMEGROWN GROCERY	2321.03997802734
2	DOVE	2267.20997953415
3	BAREFOOT	2224.32997894287
4	ORIBE	2030.90998077393
5	SHEA MOISTURE	1934.19998168945

Open-ended questions:

3) Which is the leading brand in the Dips & Salsa category?

Assumption: BRAND NOT KNOWN to be excluded from leading brand as it represents the BRANDS which are not clearly specified, so it's high volume of entries cannot be considered relevant as top brand.

```
SELECT TOP 1 BRAND, COUNT(*) AS PRODUCT_COUNT
FROM PRODUCTS
WHERE CATEGORY_2 IN ('Dips & Salsa')
AND BRAND <> 'BRAND NOT KNOWN'
GROUP BY BRAND
ORDER BY PRODUCT_COUNT DESC;
```



The screenshot shows a SQL query results window with a zoom level of 100%. The window has two tabs: 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with two columns: 'BRAND' and 'PRODUCT_COUNT'. The table contains one row with the brand 'PRIVATE LABEL' and a product count of 1166.

	BRAND	PRODUCT_COUNT
1	PRIVATE LABEL	1166