Name: Miheer Abhyankar

Assignment - Banking System

SQL

Q1 - Retrieve the customer(s) with the highest account balance.

Query –

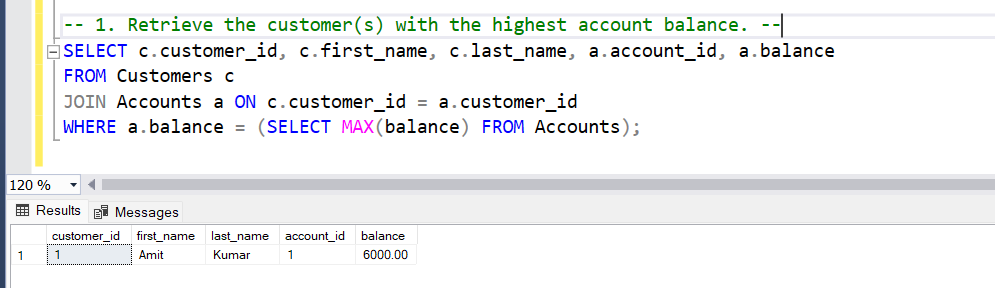
SELECT c.customer\_id, c.first\_name, c.last\_name, a.account\_id, a.balance

FROM Customers c

JOIN Accounts a ON c.customer\_id = a.customer\_id

WHERE a.balance = (SELECT MAX(balance) FROM Accounts)

Output:



Q2 - Calculate the average account balance for customers who have more than one account.

Query –

SELECT AVG(balance) AS avg\_balance

FROM Accounts

WHERE customer\_id IN (

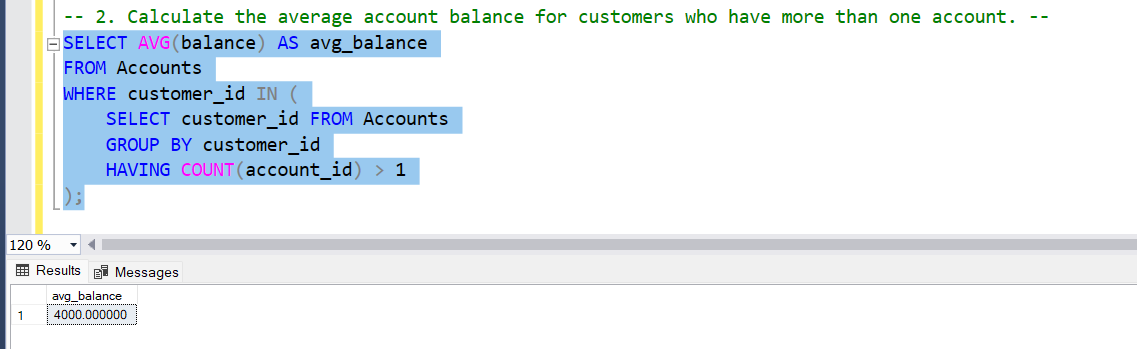
SELECT customer\_id FROM Accounts

GROUP BY customer\_id

HAVING COUNT(account\_id) > 1

)

Output:



Q3 - Retrieve accounts with transactions whose amounts exceed the average transaction amount.

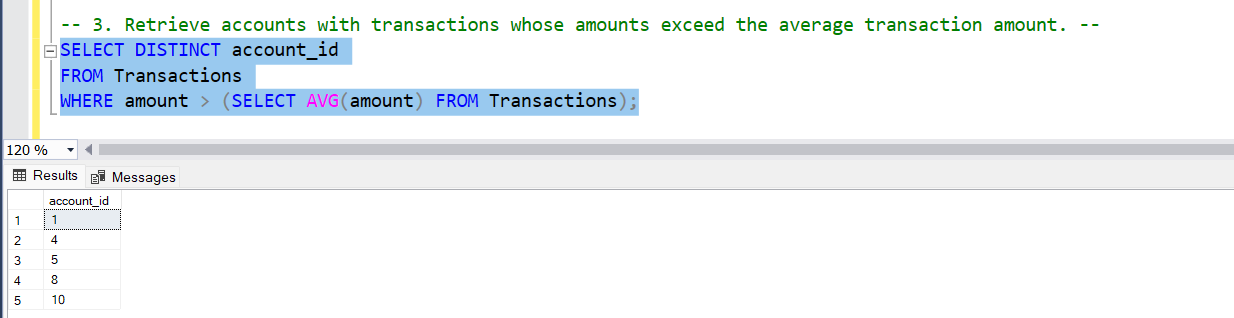
Query –

SELECT DISTINCT account\_id

FROM Transactions

WHERE amount > (SELECT AVG(amount) FROM Transactions)

Output:



Q4 - Identify customers who have no recorded transactions.

Query –

SELECT c.customer\_id, c.first\_name, c.last\_name

FROM Customers c

WHERE c.customer\_id NOT IN (

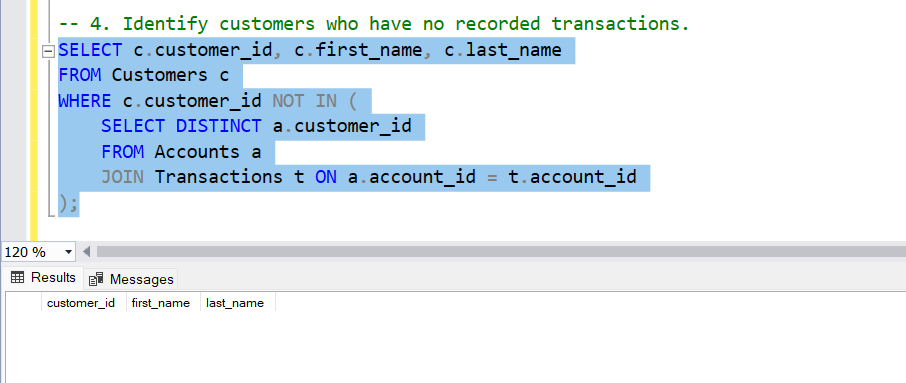
SELECT DISTINCT a.customer\_id

FROM Accounts a

JOIN Transactions t ON a.account\_id = t.account\_id

)

Output:



Q5 - Calculate the total balance of accounts with no recorded transactions.

Query –

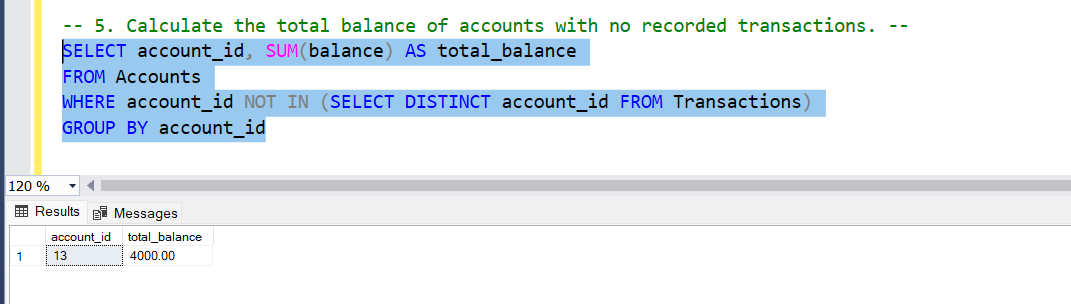
SELECT account\_id, SUM(balance) AS total\_balance

FROM Accounts

WHERE account\_id NOT IN (SELECT DISTINCT account\_id FROM Transactions)

GROUP BY account\_id

Output:



Q6 - Retrieve transactions for accounts with the lowest balance.

Query –

SELECT \* FROM Transactions

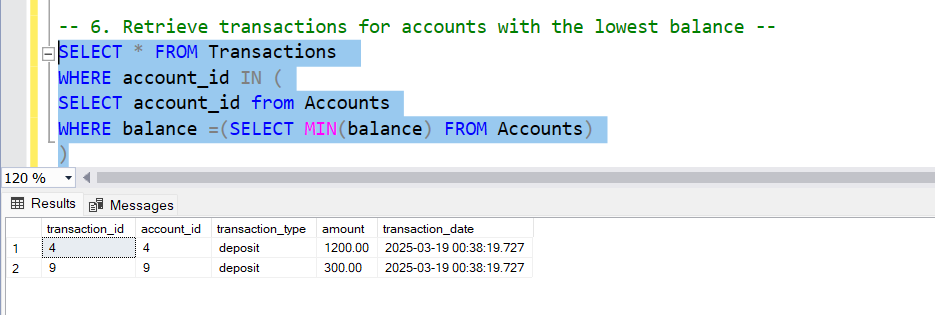
WHERE account\_id IN (

SELECT account\_id from Accounts

WHERE balance = (SELECT MIN(balance) FROM Accounts)

)

Output:



Q7 - Identify customers who have accounts of multiple types.

Query –

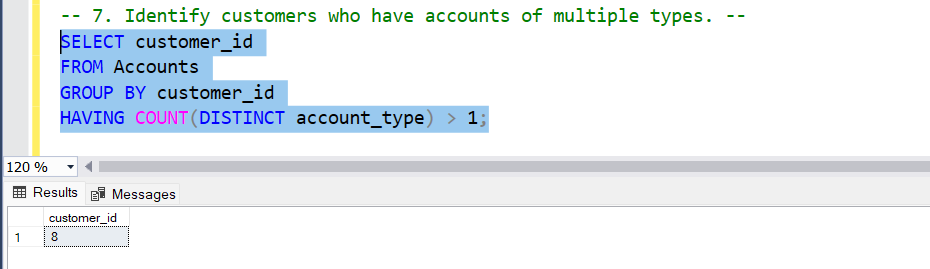
SELECT customer\_id

FROM Accounts

GROUP BY customer\_id

HAVING COUNT(DISTINCT account\_type) > 1

Output:



Q8 - Calculate the percentage of each account type out of the total number of accounts.

Query –

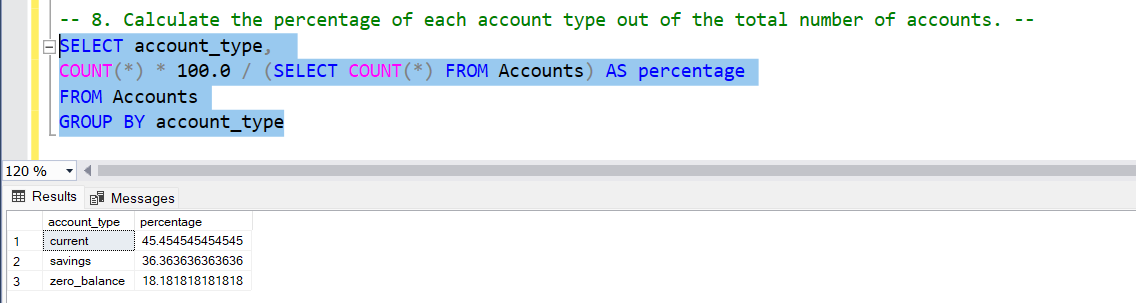
SELECT account\_type,

COUNT(\*) \* 100.0 / (SELECT COUNT(\*) FROM Accounts) AS percentage

FROM Accounts

GROUP BY account\_type

Output:



Q9 - Retrieve all transactions for a customer with a given customer\_id.

Query –

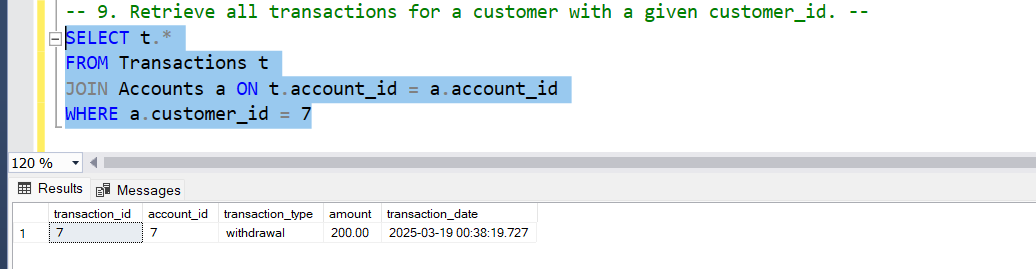
SELECT t.\*

FROM Transactions t

JOIN Accounts a ON t.account\_id = a.account\_id

WHERE a.customer\_id = 7

Output:



Q10 - Calculate the total balance for each account type, including a subquery within the SELECT clause.

Query –

SELECT account\_type,

(SELECT SUM(balance) FROM Accounts a2 WHERE a2.account\_type = a1.account\_type) AS total\_balance

FROM Accounts a1

GROUP BY account\_type

Output:

