-- At the very beginning, created a database with name "C8301DB" --

-- Next, create a table with name"transaction" --

-- While creating the transaction table, you have to create the columns first (sender, receiver, amount, transaction\_date). --

-- Following this step, name the table(transaction). --

-- Now, let's assign values for the columns. --

INSERT INTO C8301DB.dbo.transactions (sender,receiver,amount,transaction\_date)

VALUES

(5,2,10,'2-12-20'),

(1,3,15,'2-13-20'),

(2,1,20,'2-13-20'),

(2,3,25,'2-14-20'),

(3,1,20,'2-15-20'),

(3,2,15,'2-15-20'),

(1,4,5,'2-16-20')

-- Check what we have in the transaction table. --

?

select \* from C8301DB.dbo.transactions

?

-- Sum amounts for each sender (debits). --

SELECT sender, sum(amount) AS debits

FROM C8301DB.dbo.transactions

GROUP BY sender

-- Sum amounts for each receiver (credits). --

SELECT receiver, sum(amount) AS credits

FROM C8301DB.dbo.transactions

GROUP BY receiver

-- Sum amounts for each sender (debits) and

-- receiver (credits),

-- sum amounts for each sender (debits) and receiver (credits)

?

SELECT sender, sum(amount) AS debited

INTO debits

FROM C8301DB.dbo.transactions

GROUP BY sender

?

?

SELECT receiver, sum(amount) AS credited

INTO credits

FROM C8301DB.dbo.transactions

GROUP BY receiver

?

-- full (outer) join debits and credits tables on user id, taking net change as difference between credits and debits, coercing nulls to zeros with coalesce()

?

SELECT coalesce(sender, receiver) AS "user",

coalesce(credited, 0) - coalesce(debited, 0) AS net\_change

FROM debits d

FULL JOIN credits c

ON d.sender = c.receiver

ORDER BY 2 DESC