

Steel Data SQL Challenge 4

Finance Analysis

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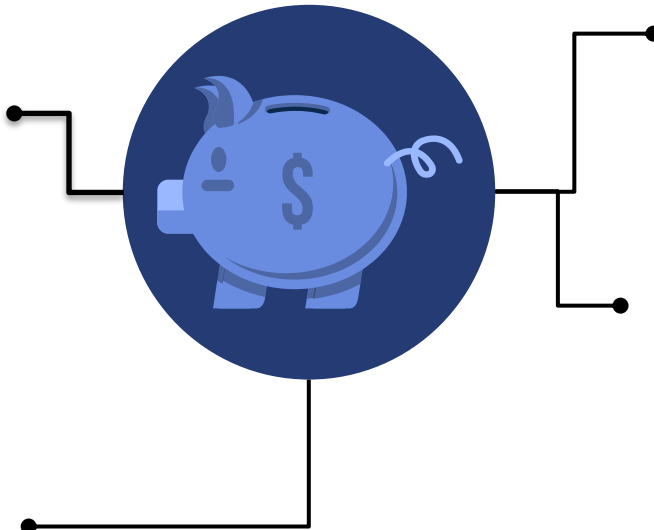
Tables Given

Customers

CustomerID	FirstName	LastName	City	State
1	John	Doe	New York	NY
2	Jane	Doe	New York	NY
3	Bob	Smith	San Francisco	CA
4	Alice	Johnson	San Francisco	CA
5	Michael	Lee	Los Angeles	CA
6	Jennifer	Wang	Los Angeles	CA

Accounts

AccountID	CustomerID	BranchID	AccountType	Balance
1	1	5	Checking	1000
2	1	5	Savings	5000
3	2	1	Checking	2500
4	2	1	Savings	####
5	3	2	Checking	7500
6	3	2	Savings	####
7	4	8	Checking	5000
8	4	8	Savings	####
9	5	14	Checking	####
10	5	14	Savings	####
11	6	2	Checking	5000
12	6	2	Savings	####
13	1	5	Credit Card	-500
14	2	1	Credit Card	-1000
15	3	2	Credit Card	-2000



Transactions

TransactionID	AccountID	TransactionDate	Amount
1	1	2022-01-01	-500
2	1	2022-01-02	-250
3	2	2022-01-03	1000
4	3	2022-01-04	-1000
5	3	2022-01-05	500
6	4	2022-01-06	1000
7	4	2022-01-07	-500
8	5	2022-01-08	-2500
9	6	2022-01-09	500
10	6	2022-01-10	-1000
11	7	2022-01-11	-500
12	7	2022-01-12	-250
13	8	2022-01-13	1000
14	8	2022-01-14	-1000
15	9	2022-01-15	500

Branches

BranchID	BranchName	City	State
1	Main	New York	NY
2	Downtown	San Francisco	CA
3	West LA	Los Angeles	CA
4	East LA	Los Angeles	CA
5	Uptown	New York	NY
6	Financial District	San Francisco	CA
7	Midtown	New York	NY
8	South Bay	San Francisco	CA
9	Downtown	Los Angeles	CA
10	Chinatown	New York	NY
11	Marina	San Francisco	CA
12	Beverly Hills	Los Angeles	CA
13	Brooklyn	New York	NY
14	North Beach	San Francisco	CA
15	Pasadena	Los Angeles	CA

Solutions



Queries

1

What are the names of all the customers who live in New York?

```
select FirstName, LastName  
from customers  
where city = 'New York';
```



ABC FirstName	ABC LastName
John	Doe
Jane	Doe

2

What is the total number of accounts in the Accounts table?

```
select count(accountID) as  
'Total Number of accounts'  
from accounts;
```



123 Total Number of accounts
15

3

What is the total balance of all checking accounts?

```
select accounttype, sum(balance)  
from accounts  
where accounttype = 'checking';
```



ABC accounttype	123 sum(balance)
Checking	31,000

4

What is the total balance of all accounts associated with customers who live in Los Angeles?

```
select city as 'City', sum(balance)
from customers c
join accounts a
on a.customerID = c.customerID
where city = 'Los Angeles'
group by city;
```



ABC City	123 sum(balance)
Los Angeles	75,000

5

Which branch has the highest average account balance?

```
select b.branchID , branchname,
avg(balance)
from branches b
join accounts a
on a.branchID = b.branchID
group by b.branchID
order by avg(balance) desc
limit 1;
```



123 branchID	ABC branchname	123 avg(balance)
14	North Beach	30,000

6

Which customer has the highest current balance in their accounts?

```
select a.customerID , concat(FirstName
,' ', LastName) as Customer_Name,
sum(balance)
from customers c
join accounts a
on c.customerID = a.customerID
group by a.customerID
order by sum(balance) desc
limit 1;
```



123 customerID	ABC Customer_Name	123 sum(balance)
5	Michael Lee	60,000

7

Which customer has made the most transactions in the Transactions table?

```
select customerID ,
count(transactionID)
from accounts a
join transactions t
on t.accountID = a.accountID
group by customerID
order by count(transactionID) desc
limit 1;
```



123 customerID	123 count(transactionID)
2	4

8

Which branch has the highest total balance across all of its accounts?

```
select b.branchID, branchName,
sum(balance)
from branches b
join accounts a
on a.branchID = b.branchID
group by b.branchID
order by sum(balance) desc
limit 1;
```



123 branchID	ABC branchName	123 sum(balance)
14	North Beach	60,000

9

Which customer has the highest total balance across all of their accounts, including savings and checking accounts?

```
select c.customerID, concat(FirstName, ' ',
LastName) as Customer_Name, sum(balance)
from accounts a
join customers c
on c.customerID = a.customerID
where a.accounttype in ('checking',
'savings')
group by c.customerID
order by sum(balance) desc
limit 1;
```

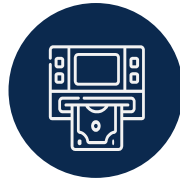


123 customerID	ABC Customer_Name	123 sum(balance)
5	Michael Lee	60,000

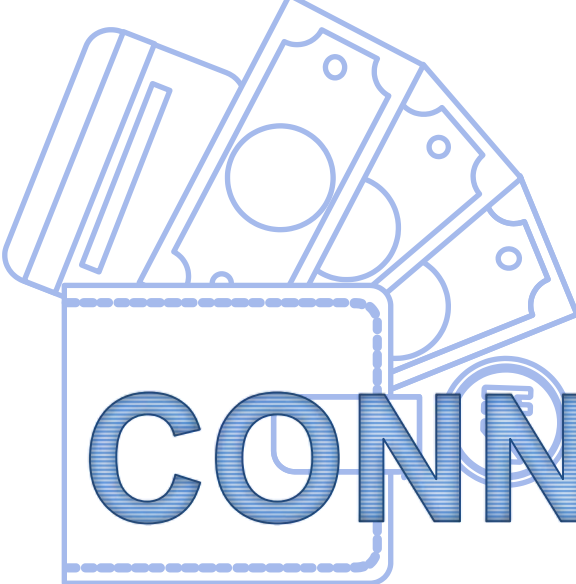
10

Which branch has the highest number of transactions in the Transactions table?

```
select BranchName , count(transactionID)
from branches b
join accounts a
on a.branchID = b.branchID
join transactions t
on t.accountID = a.accountID
group by BranchName
order by count(transactionID) desc
limit 1;
```



ABC BranchName	123 count(transactionID)
Main	4



CONNECT TO GROW TOGETHER

