

8WeekSQLChallenge.com

## CASE STUDY #4



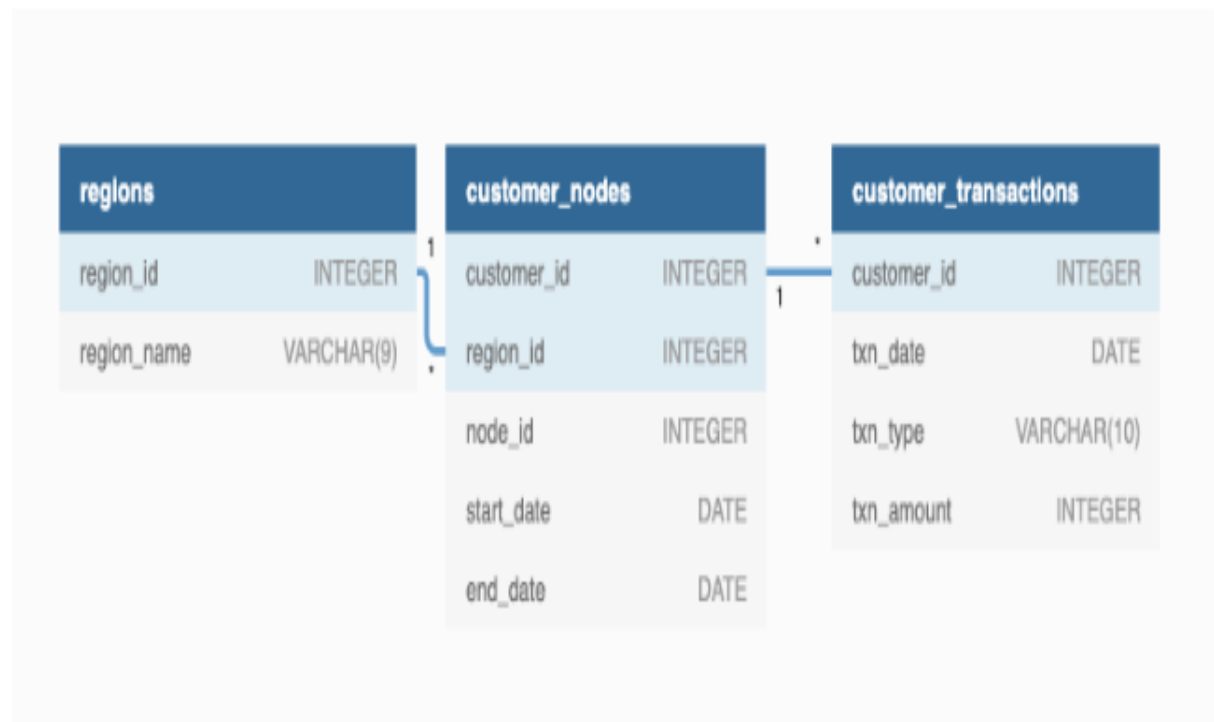
# DATA BANK

That's money.

For data set visit this link :-

<https://8weeksqlchallenge.com/case-study-4/>

## Entity Relationship Diagram



### QUESTIONS

How many unique nodes are there on the Data Bank system?

```
select count(distinct(node_id)) as count_of_unique_id
from customer_nodes
```

What is the number of nodes per region?

```
select r.region_name,count(cn.node_id) as count_per_regions
from customer_nodes as cn
join regions as r
on cn.region_id = r.region_id
group by r.region_name
```

How many customers are allocated to each region?

```
select r.region_name,count(ct.customer_id) as count_per_regions
from customer_nodes as cn
join regions as r on cn.region_id = r.region_id
join customer_transactions as ct on ct.customer_id = cn.customer_id
group by r.region_name
```

How many days on average are customers reallocated to a different node?

```
with mycte as
(
select customer_id,sum(end_date - start_date) total_days
from customer_nodes
where end_date <> '9999-12-31'
group by customer_id
order by customer_id
)
select round(avg(total_days),1) as avg_days
from mycte
```

What is the unique count and total amount for each transaction type?

```
select
distinct(txn_type),
count(txn_type) txn_count,
sum(txn_amount) txn_type_tot_amount
from customer_transactions
group by txn_type
```

What is the average total historical deposit counts and amounts for all customers?

```
select
customer_id,round(avg(txn_amount),1) as avg_amount
from customer_transactions
where txn_type = 'deposit'
group by customer_id,txn_type
order by customer_id
```

For each month - how many Data Bank customers make more than 1 deposit and either 1 purchase or 1 withdrawal in a single month?

```
select
to_char(txn_date,'month') months,
count(case when txn_type = 'deposite' then 1 else 0 end) count_of_deposit,
count(case when txn_type <> 'deposite' then 1 else 0 end) count_of_withdraw_perchase
from customer_transactions
group by to_char(txn_date,'month')
```

