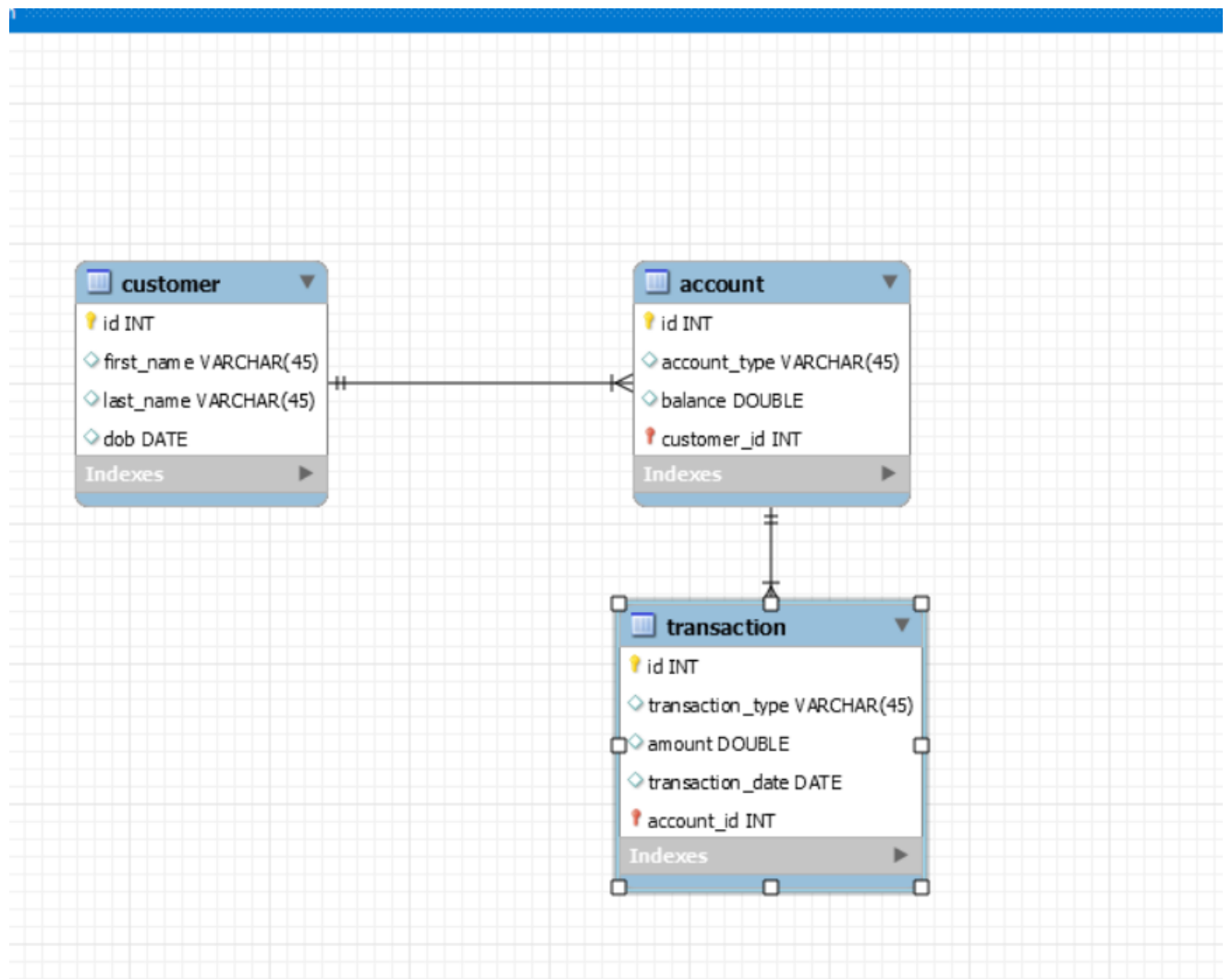


BANKING_DB



```
use banking_db;  
show tables;  
select * from transaction;  
select* from account;  
select * from customer;
```

-- Task 2

/* Write SQL queries for the following tasks:

/*1. Write a SQL query to retrieve the name, account type and email of all customers.*/

```
select c.first_name,c.last_name,a.account_type from  
customer c JOIN account a ON c.id = a.customer_id;
```

/*2. Write a SQL query to list all transaction corresponding customer.*/

```
select c.id,c.first_name,t.transaction_type,t.amount  
from transaction t JOIN account a ON t.account_id = a.id  
JOIN customer c ON c.id=a.customer_id;
```

/*3. Write a SQL query to increase the balance of a specific account by a certain amount.*/

```
update account set balance = '56000' where id=3;
```

/*4. Write a SQL query to Combine first and last names of customers as a full_name.*/

/* CONCAT */

```
select concat(first_name,' ',last_name) as full_name from customer;
```

/*5. Write a SQL query to remove accounts with a balance of zero where the account type is savings.*/

```
delete from account
```

```
where account_type = 'saving' and balance = 50000;
```

```
/*6. Write a SQL query to Find customers living in a specific city.*/
```

```
select concat(first_name, ' ', last_name) as full_name from customer where  
city='chennai';
```

```
/*7. Write a SQL query to Get the account balance for a specific account*/
```

```
select balance from account where id=1;
```

```
/*8. Write a SQL query to List all current accounts with a balance greater than  
$1,000.*/
```

```
select id, balance as current from account where balance > 50000;
```

```
/*9. Write a SQL query to Retrieve all transactions for a specific account.*/
```

```
select * from transaction where account_id=2;
```

```
/*10. Write a SQL query to Calculate the interest accrued on savings accounts  
based on a given interest rate.*/
```

```
SELECT id, balance * 10 AS interest FROM account;
```

/*11. Write a SQL query to Identify accounts where the balance is less than a specified overdraft limit.*/

```
SELECT id, balance  
FROM account  
WHERE balance < 1000;
```

/*12. Write a SQL query to Find customers not living in a specific city.*/

```
select * from customer where city != 'chennai';
```

/* task 3 */

1. Write a SQL query to Find the average account balance for all customers. */

```
select avg(balance), customer_id from account  
group by customer_id;
```

/* 2. Write a SQL query to Retrieve the top 10 highest account balances.*/

```
select balance, customer_id from account group by balance order by balance  
desc limit 0,3;
```

/* 3. Write a SQL query to Calculate Total Deposits for All Customers in specific date. Also display name of the customer */

```
select c.first_name,c.last_name,t.transaction_type,t.transaction_date,t.amount
from transaction t JOIN account a ON t.account_id=a.id JOIN customer c ON
c.id=a.customer_id
where transaction_date='2024-02-01' and transaction_type = 'deposit';
```

/* 4. Write a SQL query to Find the Oldest and Newest Customers. */

```
(select first_name,last_name,dob,'oldest' from customer order by dob limit
0,1)
```

UNION

```
(select first_name,last_name,dob,'young' as status from customer order by dob
desc limit 0,1);
```

/* 5. Write a SQL query to Retrieve transaction details along with the account type.*/

```
select t.transaction_type,t.transaction_date,t.amount,a.account_type
from account a JOIN transaction t ON t.account_id = a.id;
```

/* 6. Write a SQL query to Get a list of customers along with their account details.*/

```
select c.first_name,c.last_name,a.account_type,a.balance from
customer c JOIN account a ON c.id= a.customer_id
```

```
group by customer_id;
```

```
/* 7. Write a SQL query to Retrieve transaction details along with customer  
information for a specific account.*/
```

```
select c.first_name,c.last_name,  
t.transaction_type,t.amount,t.transaction_date,a.account_type,a.balance from  
customer c JOIN account a ON c.id = a.customer_id JOIN transaction t ON  
t.account_id = a.id  
where a.account_type='savings';
```

```
/* 8. Write a SQL query to Identify customers who have more than one  
account.*/
```

```
select c.first_name,c.last_name,count(c.id) from  
customer c JOIN account a On c.id= a.customer_id  
group by a.customer_id  
having count(c.id)>1;
```

```
/* 9. Write a SQL query to Calculate the difference in transaction amounts  
between deposits and withdrawals.
```

```
doubt
```

```
*/
```

```
/* 10. Write a SQL query to Calculate the average daily balance for each  
account over a specified  
period.*/
```

```
SELECT a.id,t.transaction_date,  
AVG(a.balance) AS average_daily_balance  
FROM account a JOIN transaction t On t.account_id=a.id having  
t.transaction_date  
between '2024-02-01' and '2024-02-05';
```

/*11. Calculate the total balance for each account type.*/

```
select account_type,sum(balance) from account group by account_type;
```

/*12. Identify accounts with the highest number of transactions order by descending order.*/

```
select id,count(id) as highest_transaction from account group by id order by  
highest_transaction desc;
```

/*13. List customers with high aggregate account balances, along with their account types.*/

```
select c.first_name,a.account_type,a.balance from account a JOIN customer c  
ON c.id=a.customer_id;
```

/*14. Identify and list duplicate transactions based on transaction amount, date, and account*/

```
select id,transaction_type,transaction_date,amount,count(account_id) as  
duplicate from transaction group by account_id;
```

/* SUB QUERY */

/*practice*/

/*

2. Calculate the average account balance for customers who have more than one account.*/

select avg(balance) from account where customer_id in
(select customer_id from account group by customer_id having count(id)>1);

/* 10. Calculate the total balance for each account type, including a subquery within the SELECT clause.*/

select sum(balance),account_type from account group by account_type;

/* 9. Retrieve all transactions for a customer with a given customer_id. */

select * from transaction where account_id
in (select id from account where customer_id=1);

/* 4. Identify customers who have no recorded transactions.*/

select customer_id from account where id NOT IN (1,2,3,4,5);

/* Tasks 4: Subquery and its type:

1. Retrieve the customer(s) with the highest account balance.*/

```
select id from customer where id IN  
(select balance from account order by balance desc);
```

/*2. Calculate the average account balance for customers who have more than one account.*/

```
select avg(balance) from account where customer_id in  
(select customer_id from account group by customer_id having  
count(customer_id)>1);
```

/* 3. Retrieve accounts with transactions whose amounts exceed the average transaction amount.*/

```
select id from transaction where amount >( select avg(amount) from  
transaction);
```

/*4. Identify customers who have no recorded transactions.*/

```
select id,first_name  
from customer  
where NOT EXISTS (select distinct c.id  
from customer c join account a ON c.id=a.customer_id);
```

/*5. Calculate the total balance of accounts with no recorded transactions.*/

```
select sum(balance) from account where id not in(select distinct a.id from  
account a
```

```
JOIN transaction t
```

```
ON t.account_id=a.id);
```

/*6. Retrieve transactions for accounts with the lowest balance.*/

```
select * from transaction where id =
```

```
(select id from account order by balance limit 1 );
```

/*7. Identify customers who have accounts of multiple types.*/

```
select * from customer where id in(select id from account
```

```
where account_type in('savings','current','zero balance'));
```

/* 8. Calculate the percentage of each account type out of the total number of accounts */

```
SELECT
```

```
account_type,
```

/* doubt*/

/*9. Retrieve all transactions for a customer with a given customer_id. */

```
select * from transaction where id in (select id from account where  
customer_id=1);
```

/*10. Calculate the total balance for each account type, including a subquery
within the SELECT clause.*/

```
select account_type,sum(balance) from account group by account_type;
```