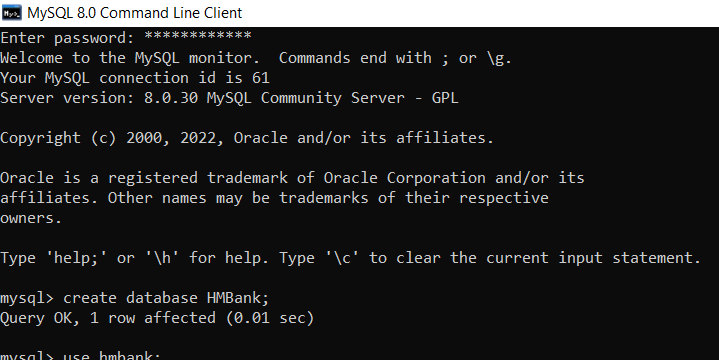
**ASSIGNMENT 3**

**NAME : - SUSHANT KUMAR SINGH**

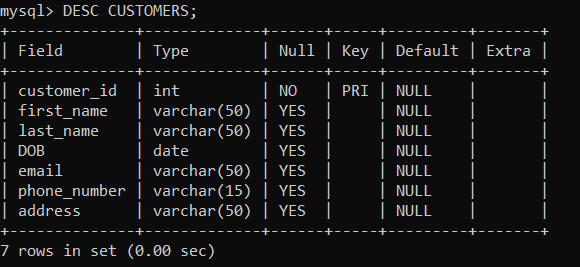
**EMAIL :-** [**ssushant886@gmail.com**](mailto:ssushant886@gmail.com)

**Tasks 1: Database Design:**

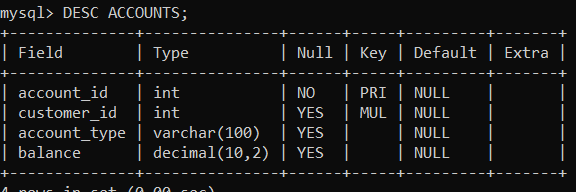
1. **Create the database named "HMBank"**

****

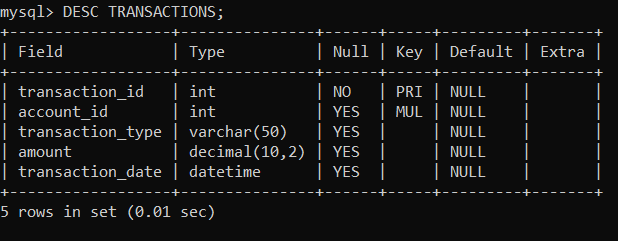
1. **Define the schema for the Customers, Accounts, and Transactions tables based on the provided schema.**
2. **CUSTOMERS SCHEMA**

****

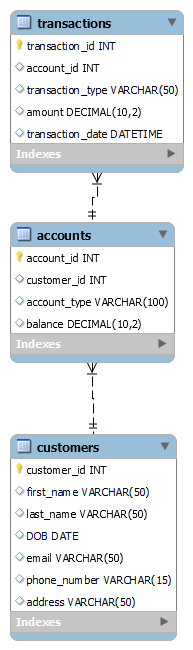
1. **ACCOUNTS SCHEMA**

****

1. **TRANSACTIONS SCHEMA**

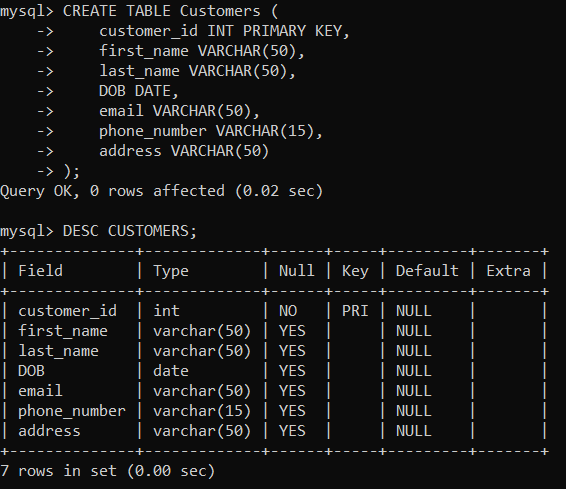
****

**4. Create an ERD (Entity Relationship Diagram) for the database.**

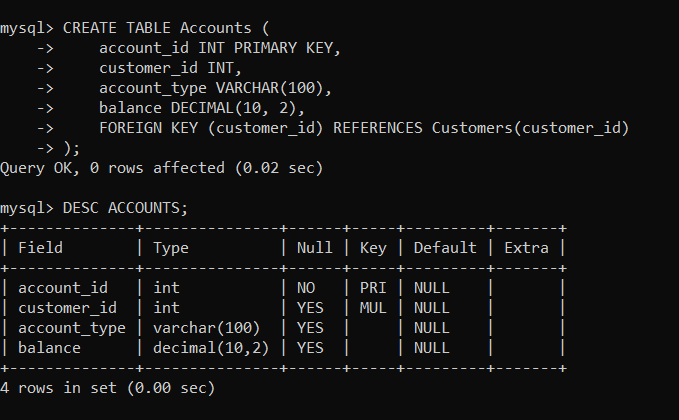
****

**6. Write SQL scripts to create the mentioned tables with appropriate data types, constraints, and relationships. • Customers • Accounts • Transactions**

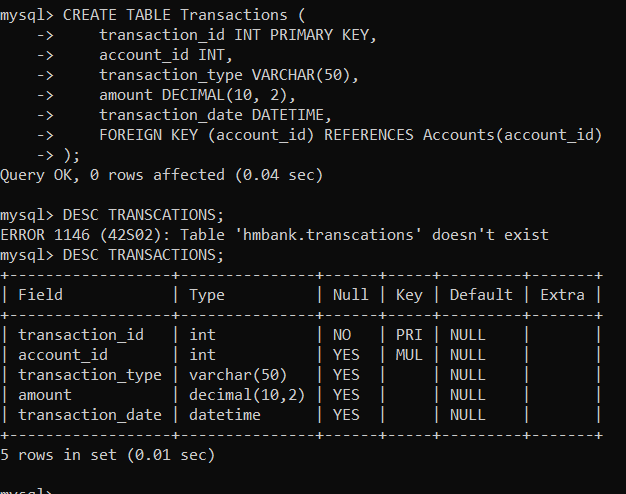
1. **CUSTOMES**

****

**2) ACCOUNTS**

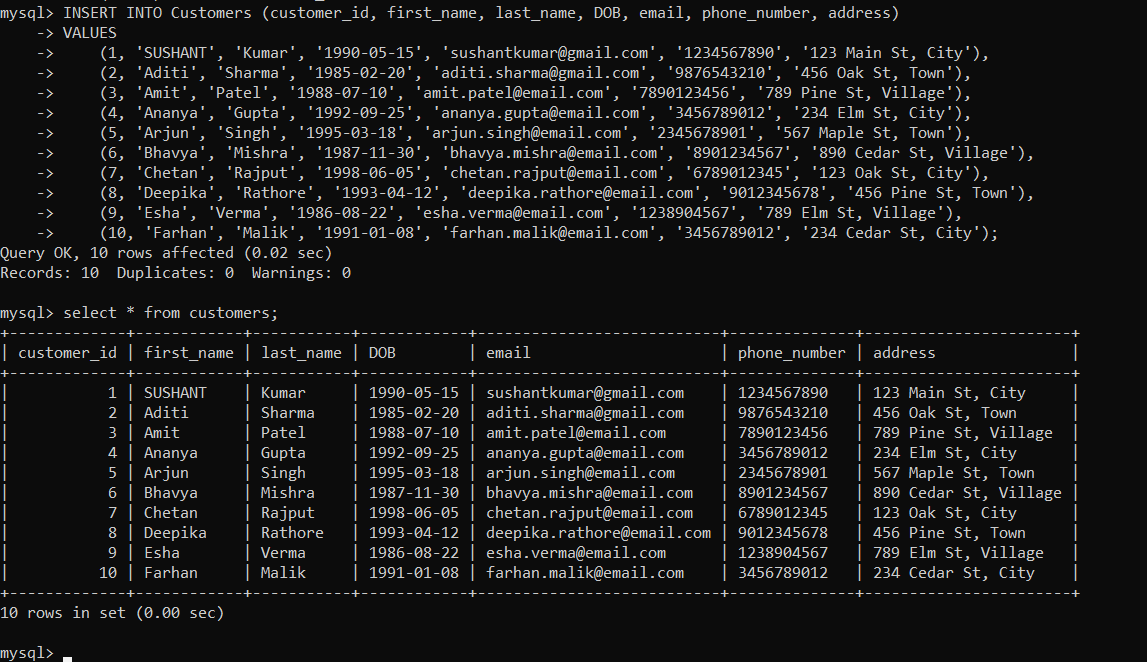
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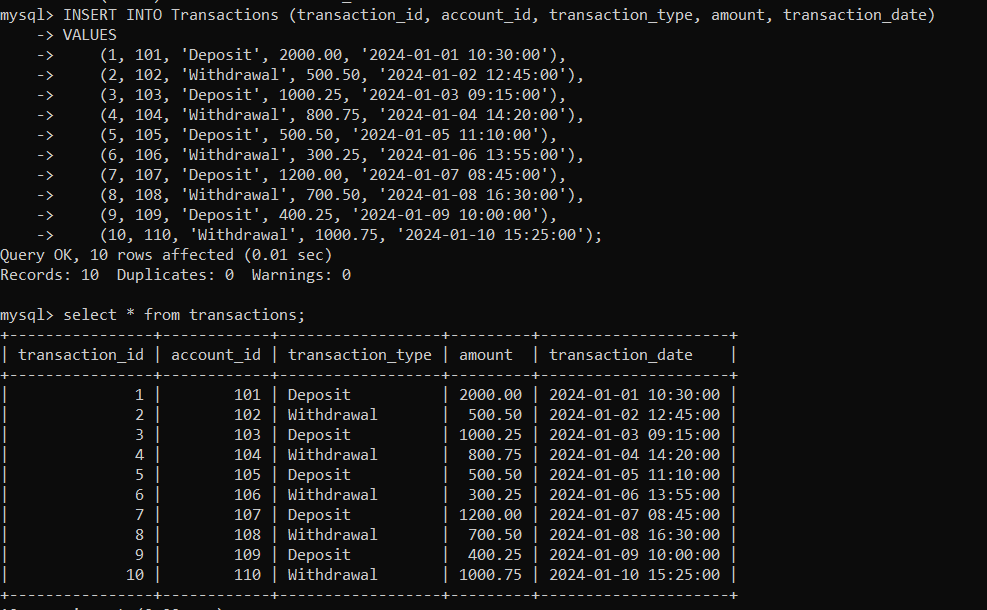
**3) TRANSACTIONS**

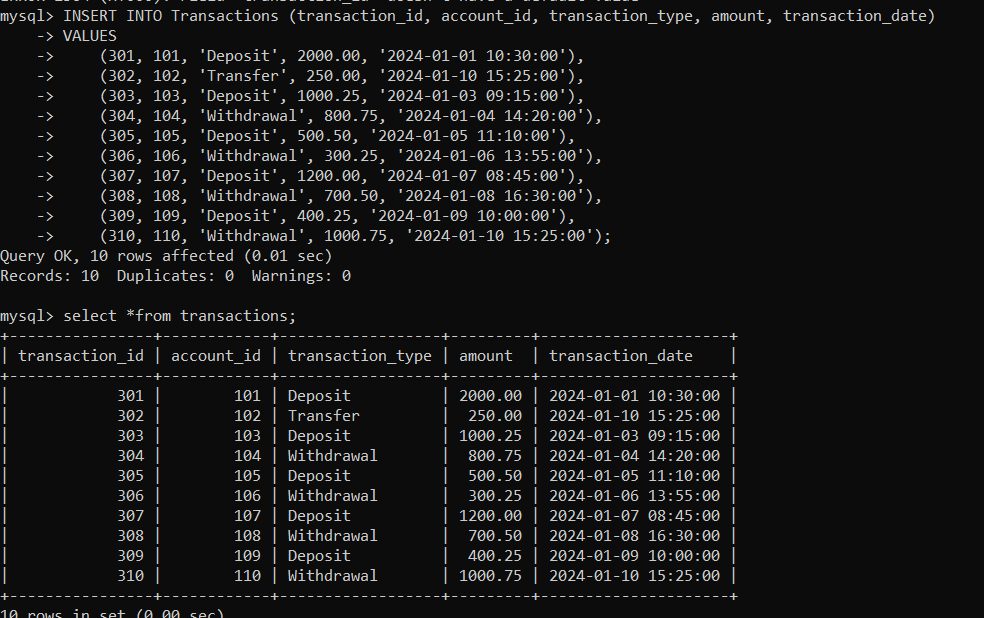
****

**Tasks 2: Select, Where, Between, AND, LIKE:**

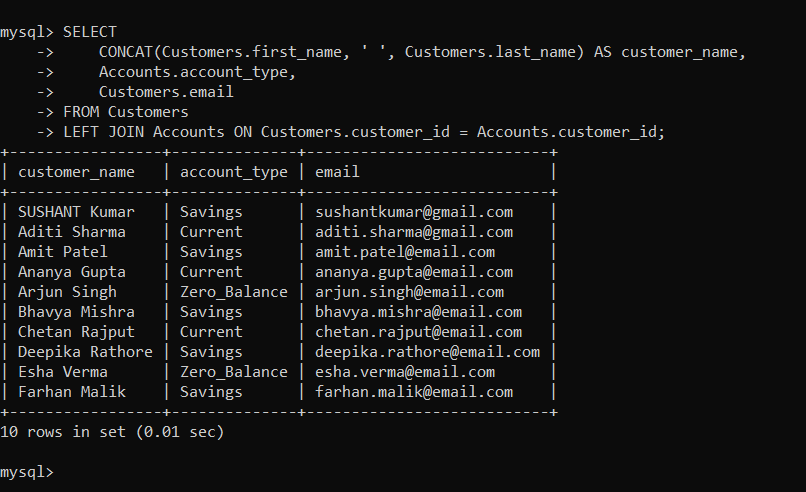
1. **Insert at least 10 sample records into each of the following tables**

**. • Customers • Accounts • Transactions**

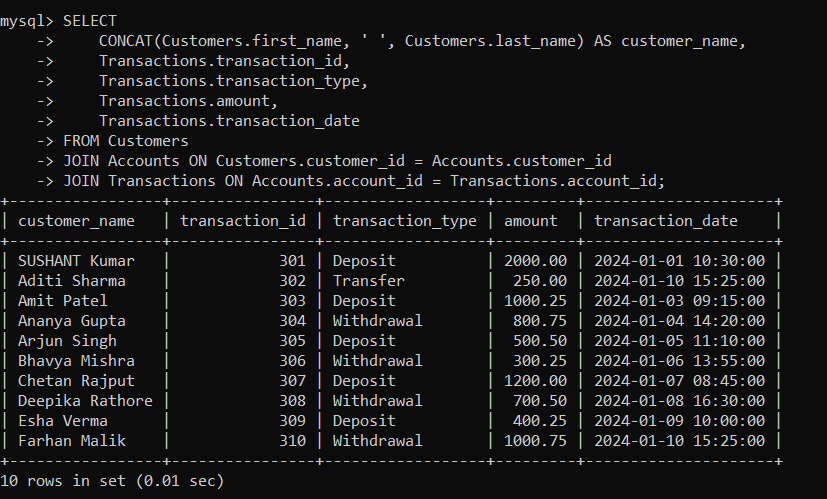
****

****

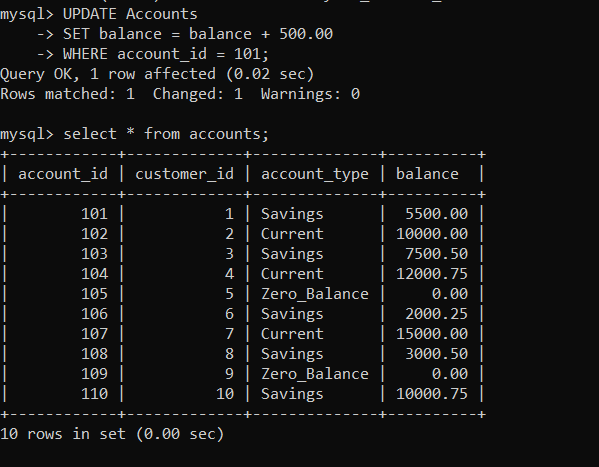
**2. Write SQL queries for the following tasks:**

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

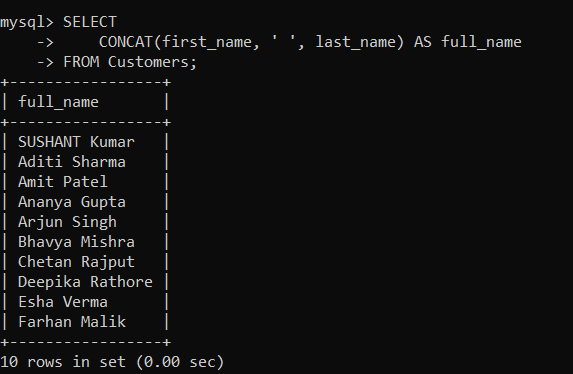
**2. Write a SQL query to list all transaction corresponding customer.**

****

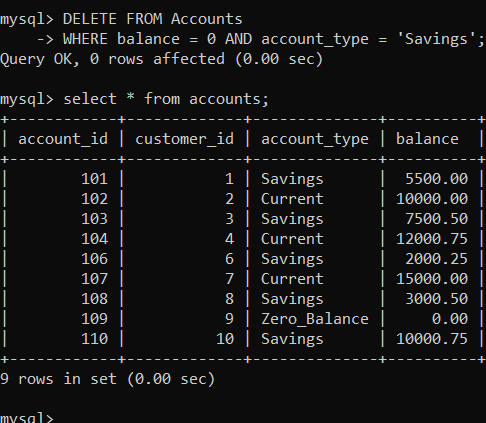
**3. Write a SQL query to increase the balance of a specific account by a certain amount.**

****

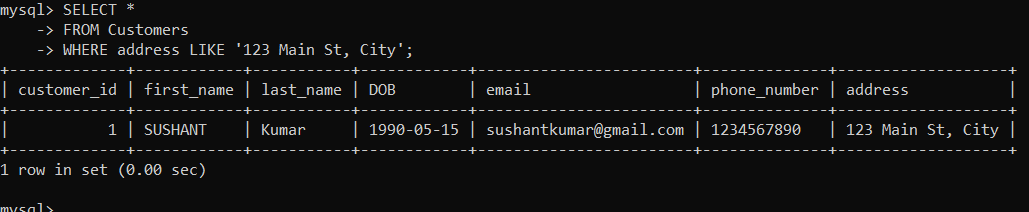
**4. Write a SQL query to Combine first and last names of customers as a full\_name.**

****

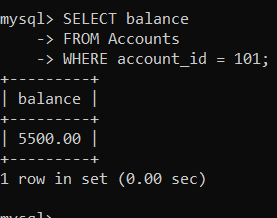
**5. Write a SQL query to remove accounts with a balance of zero where the account type is savings.**

****

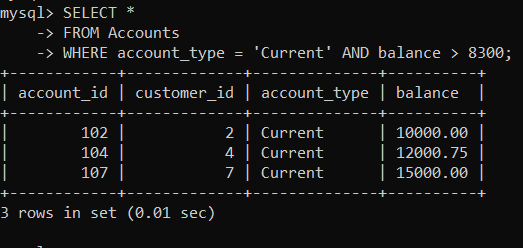
**6. Write a SQL query to Find customers living in a specific city.**

****

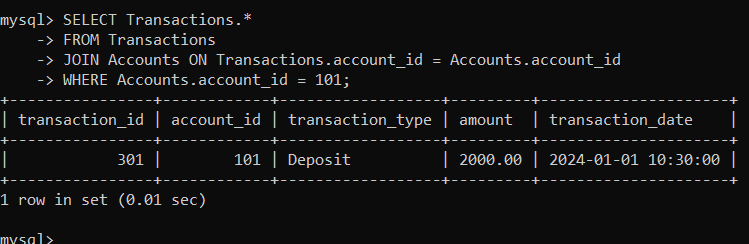
**7. Write a SQL query to Get the account balance for a specific account.**

****

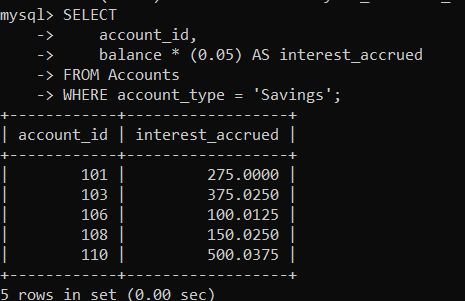
**8. Write a SQL query to List all current accounts with a balance greater than $1,000.**

****

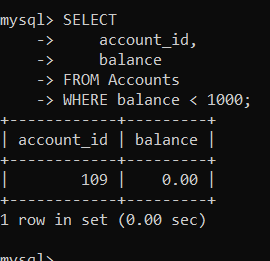
**9) Write a SQL query to Retrieve all transactions for a specific account.**

****

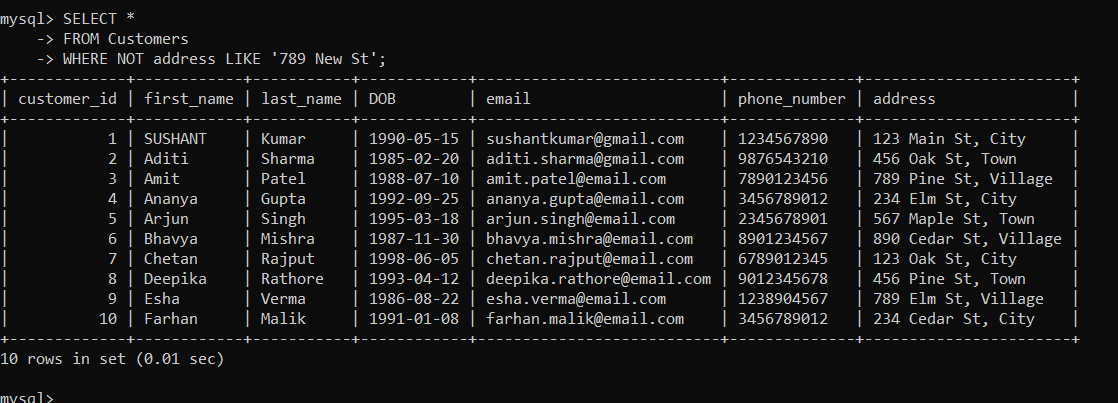
**10. Write a SQL query to Calculate the interest accrued on savings accounts based on a given interest rate.**

****

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

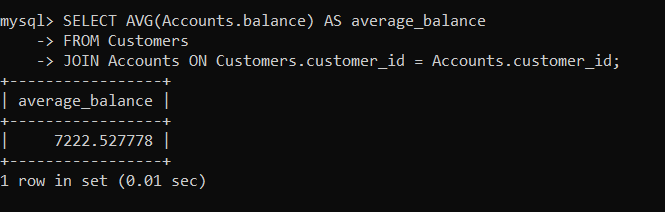
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**12. Write a SQL query to Find customers not living in a specific city**

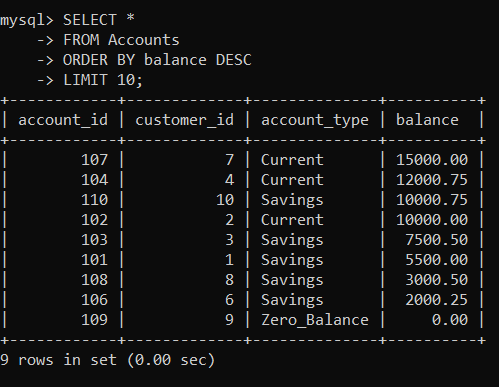
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**Tasks 3: Aggregate functions, Having, Order By, GroupBy and Joins:**

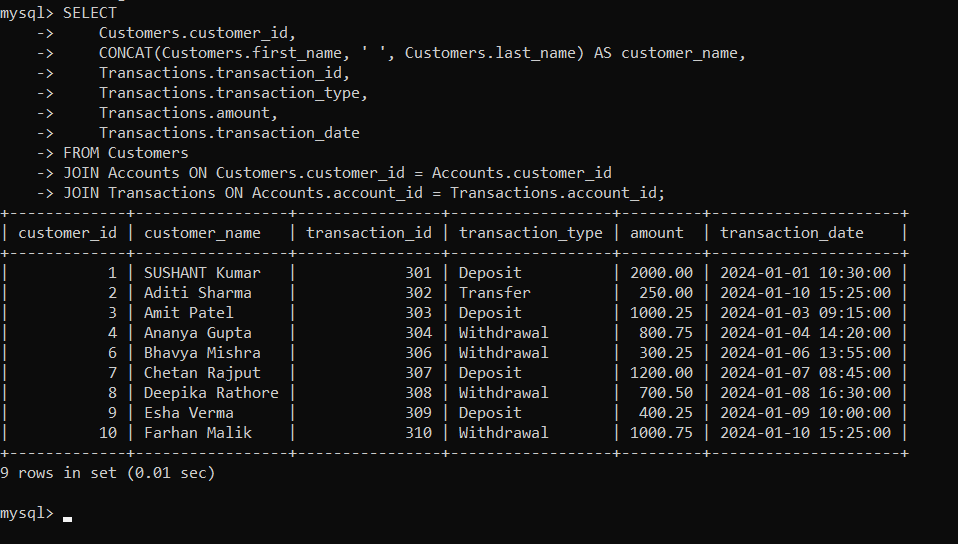
**1. Write a SQL query to Find the average account balance for all customers.**

****

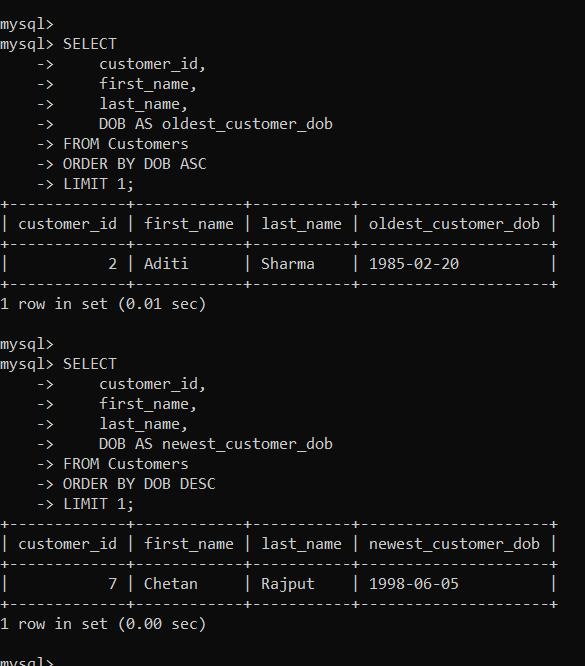
**2. Write a SQL query to Retrieve the top 10 highest account balances.**

****

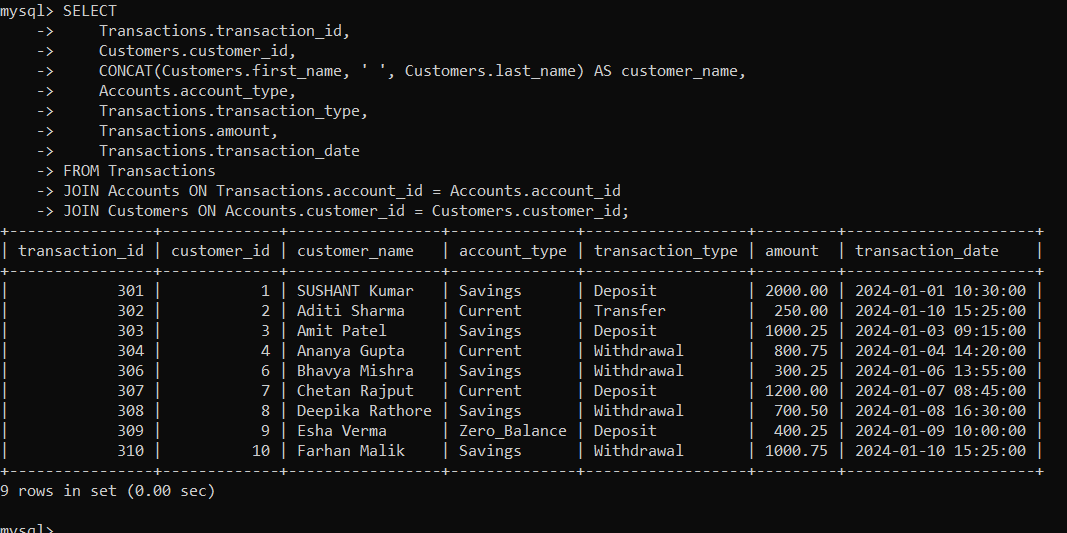
**3. Write a SQL query to list all transaction corresponding customer.**

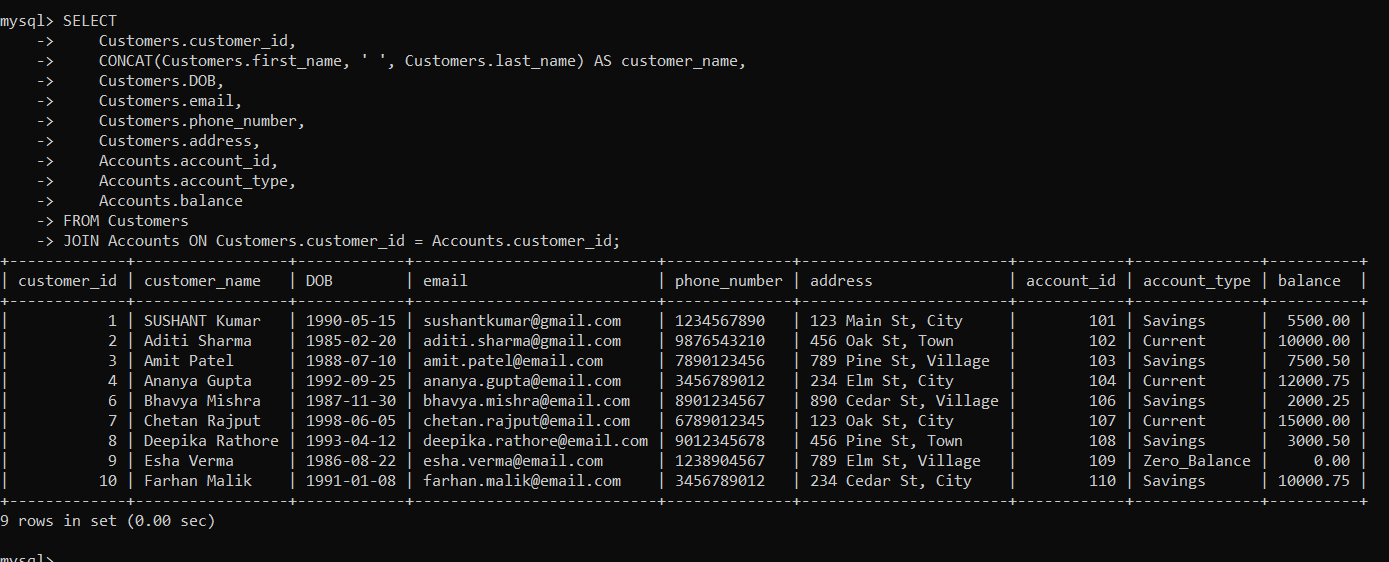
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**4. Write a SQL query to Find the Oldest and Newest Customers.**

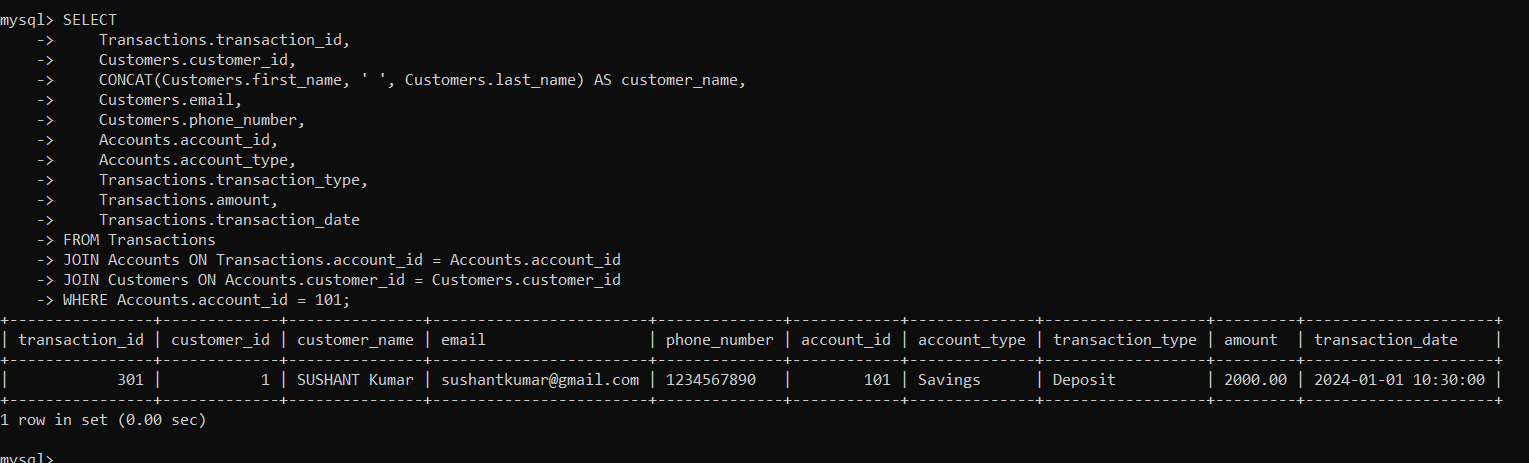
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**5. Write a SQL query to Retrieve transaction details along with the account type.**

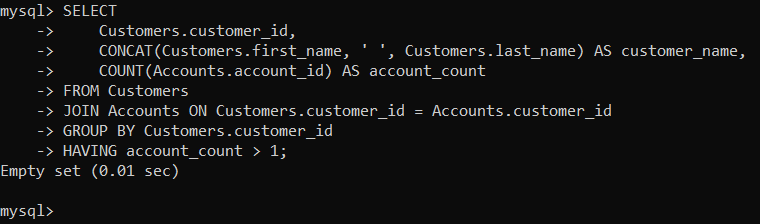
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**6. Write a SQL query to Get a list of customers along with their account details.**

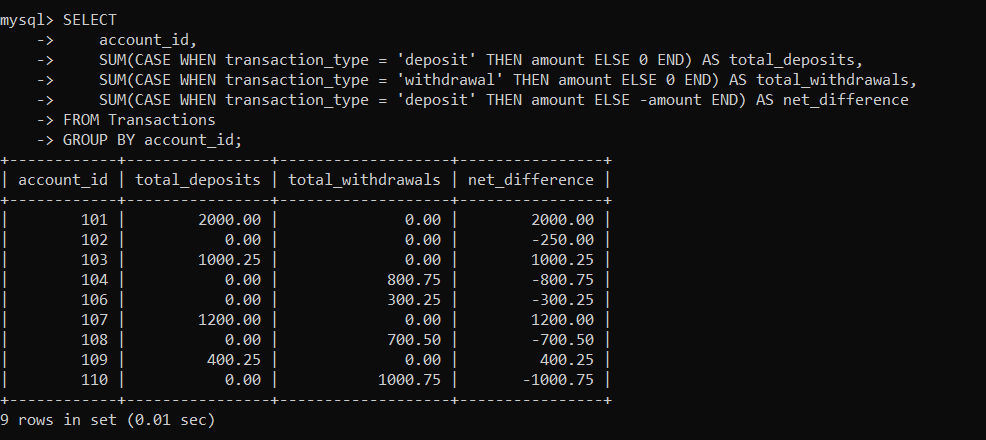
**7. Write a SQL query to Retrieve transaction details along with customer information for a specific**

**account.**

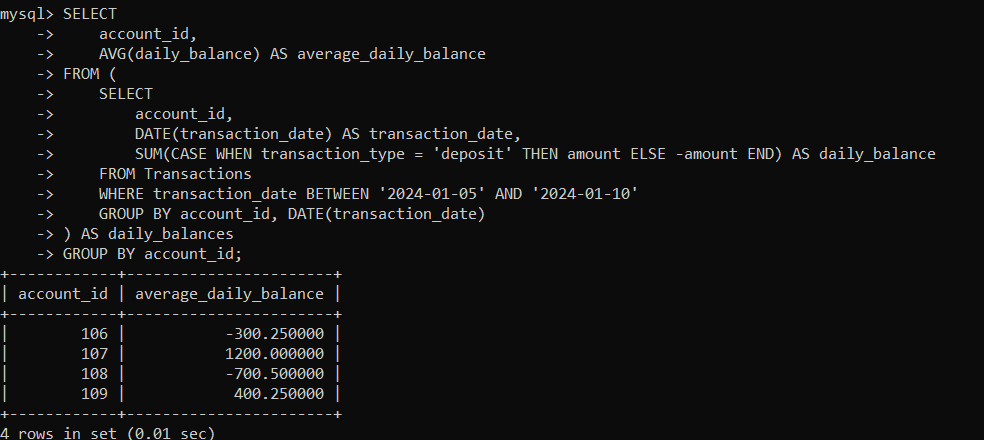
**8. Write a SQL query to Identify customers who have more than one account.**

****

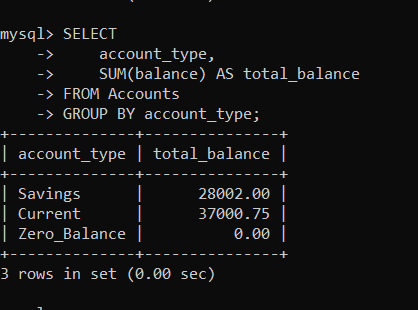
**9. Write a SQL query to Calculate the difference in transaction amounts between deposits and withdrawals.**

****

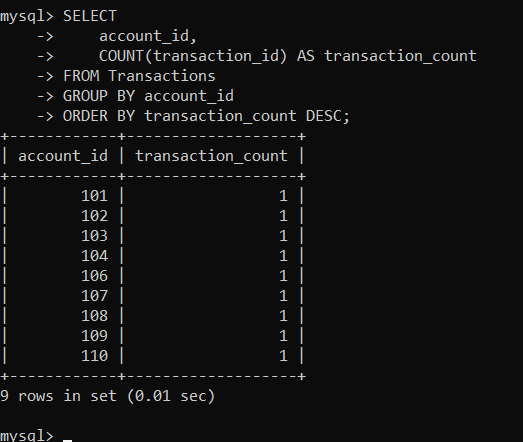
**10. Write a SQL query to Calculate the average daily balance for each account over a specified period.**

****

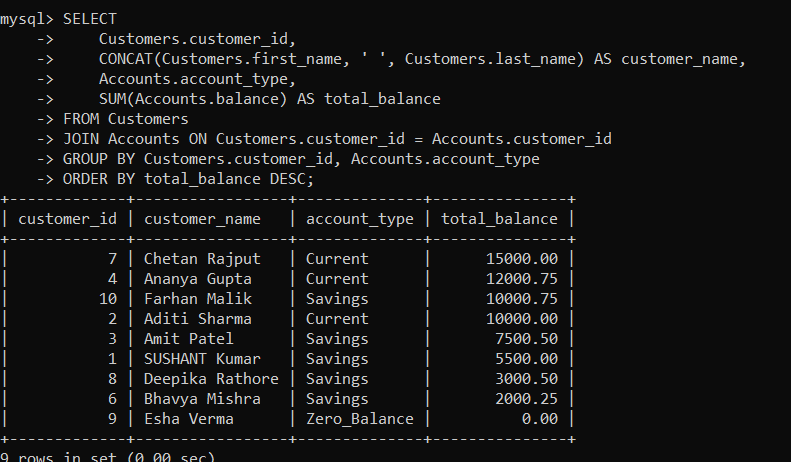
**11. Calculate the total balance for each account type.**

****

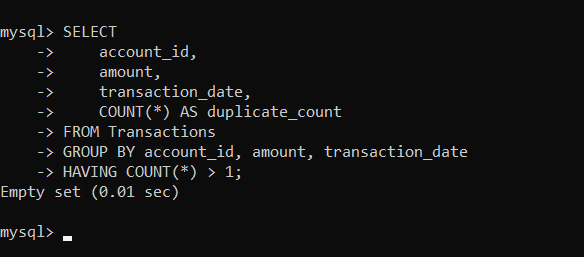
**12. Identify accounts with the highest number of transactions order by descending order.**

****

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

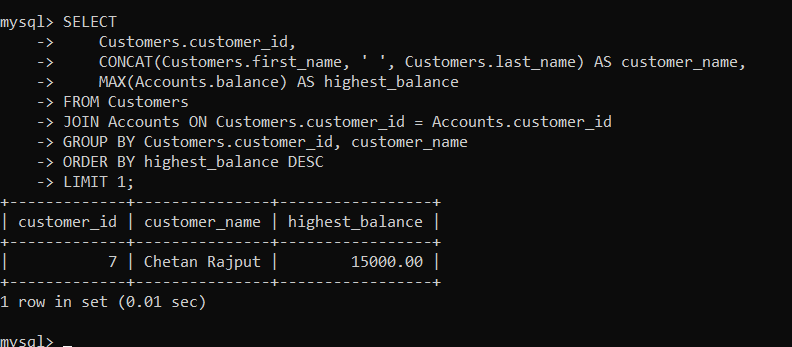
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**14. Identify and list duplicate transactions based on transaction amount, date, and account.**

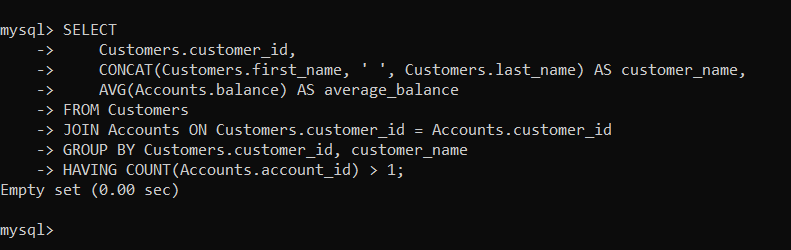
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**Tasks 4: Subquery and its type:**

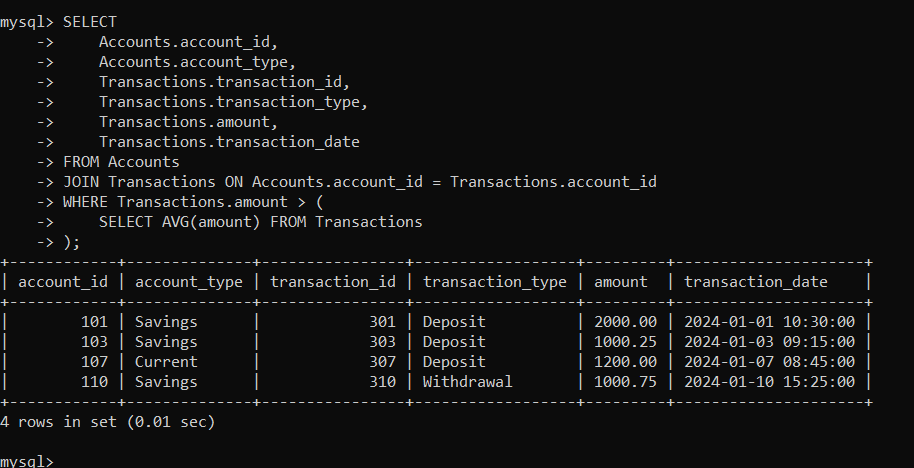
**1. Retrieve the customer(s) with the highest account balance.**

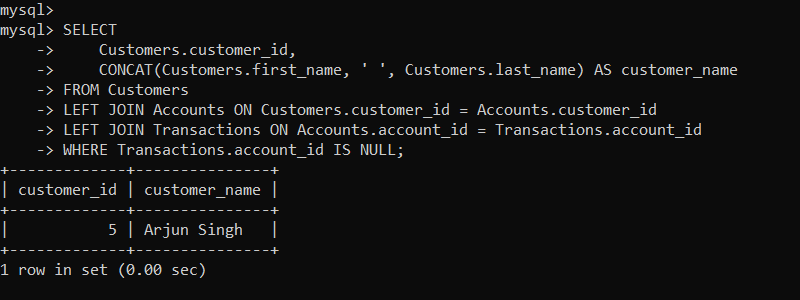
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**2. Calculate the average account balance for customers who have more than one account.**

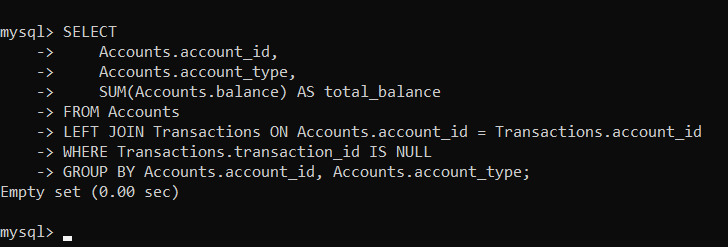
****

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

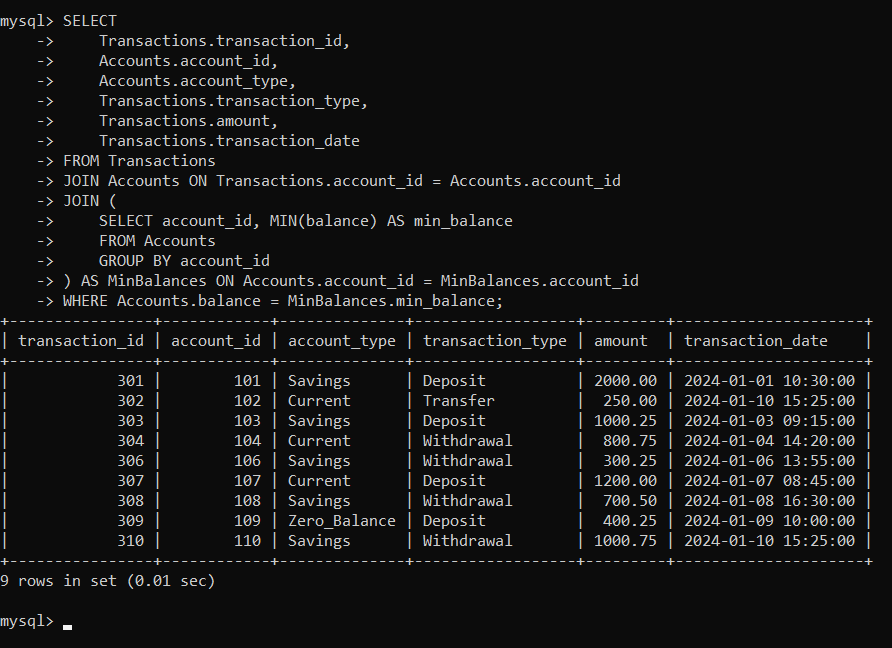
****

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

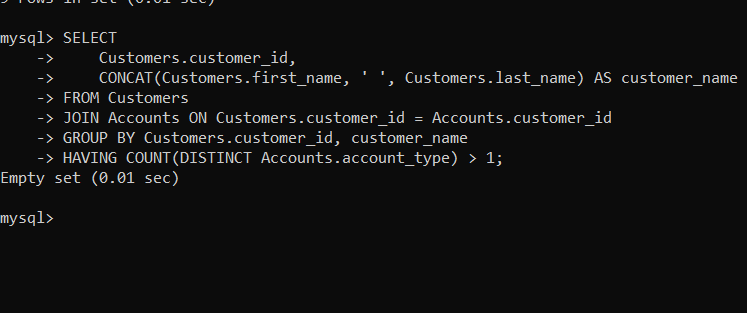
**5. Calculate the total balance of accounts with no recorded transactions.**

****

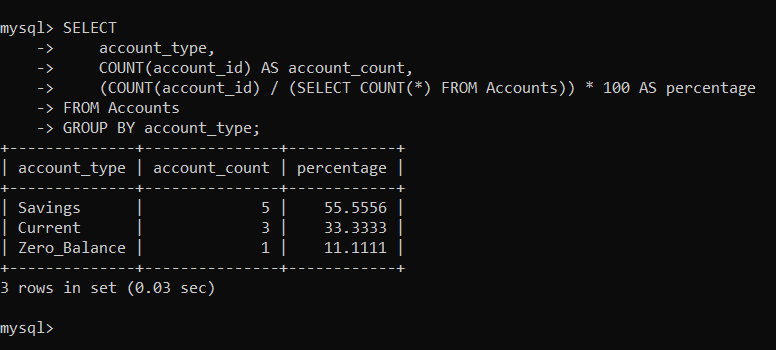
**6. Retrieve transactions for accounts with the lowest balance.**

****

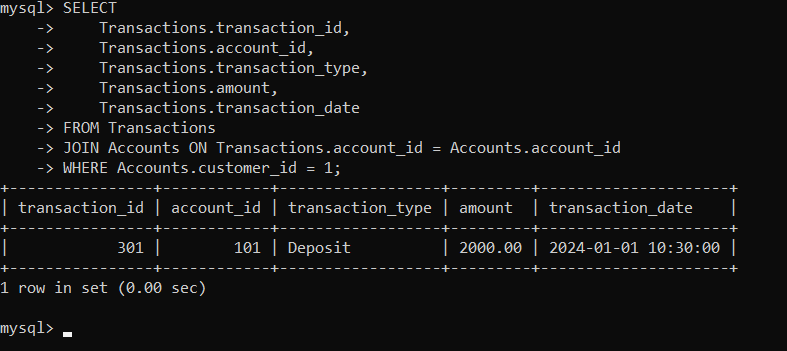
**7. Identify customers who have accounts of multiple types.**

****

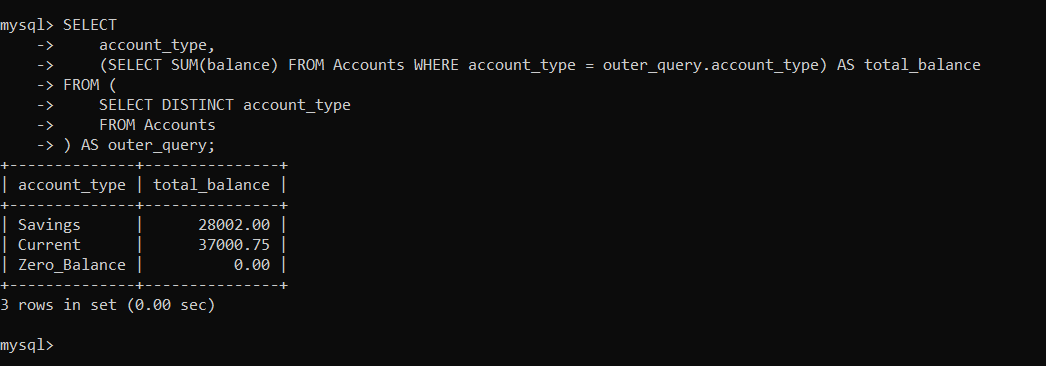
**8. Calculate the percentage of each account type out of the total number of accounts.**

****

**9. Retrieve all transactions for a customer with a given customer\_id.**

****

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

****