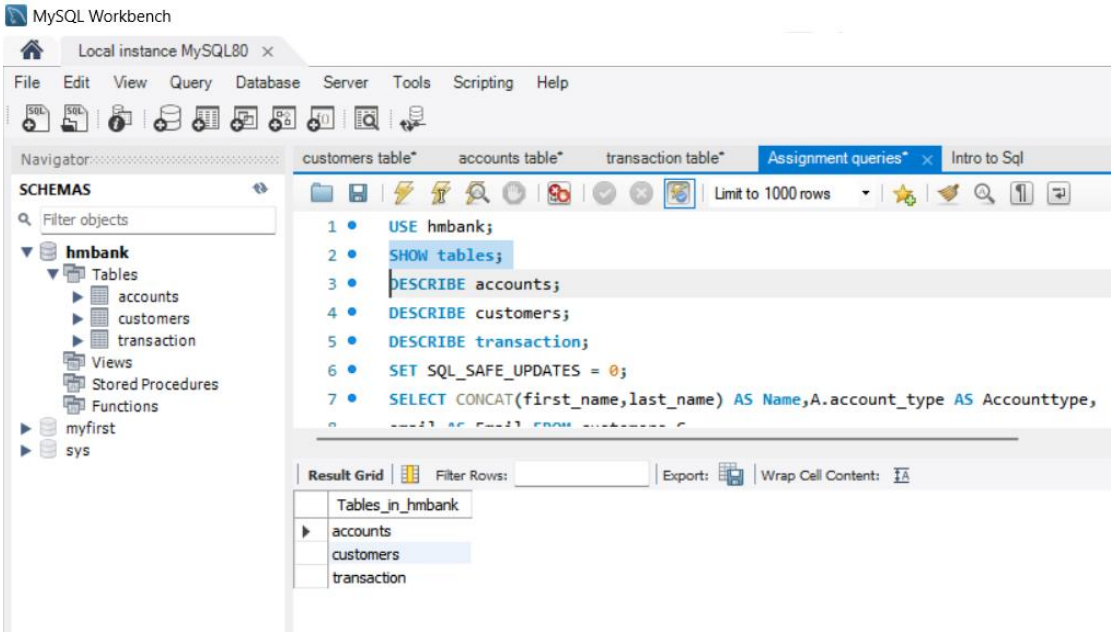
Task 1

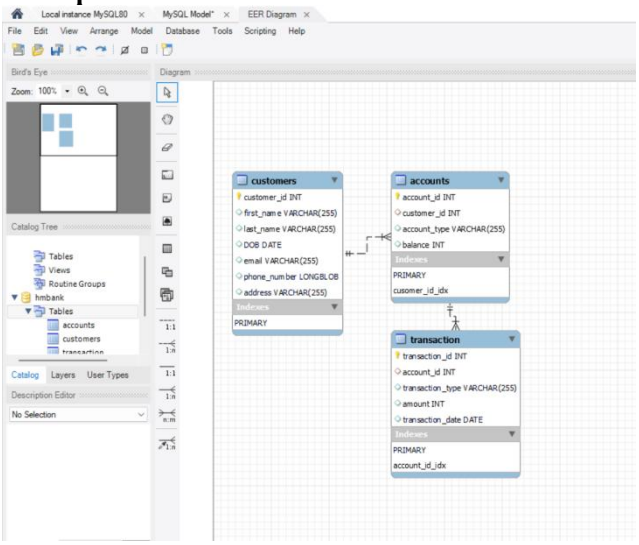
1. Create the database named "HMBank"
2. Define the schema for the Customers, Accounts, and Transactions tables based on the provided schema.

Output:



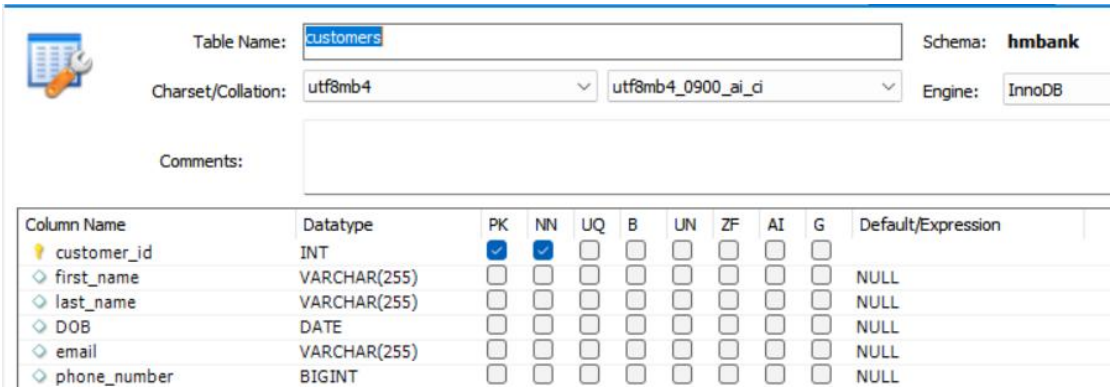
3. Create an ERD (Entity Relationship Diagram) for the database.

Output:



4. Create appropriate Primary Key and Foreign Key constraints for referential integrity.

Output:



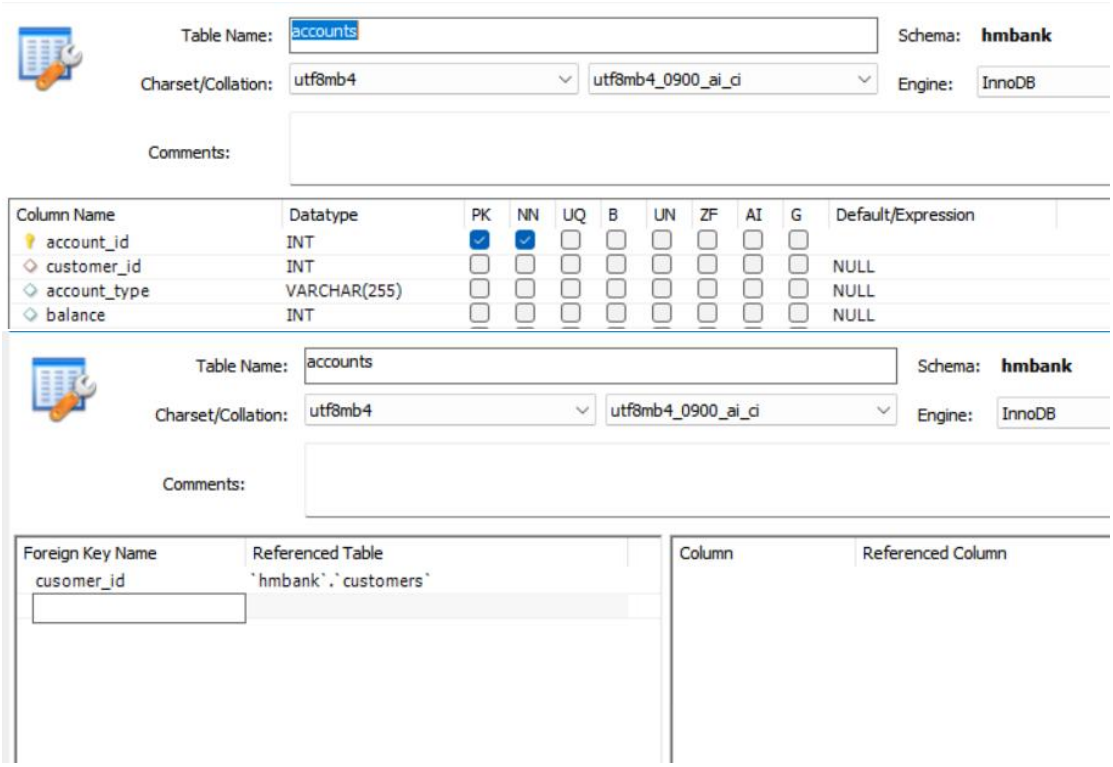


Table Name: accounts
Schema: hmbank
Charset/Collation: utf8mb4 utf8mb4_0900_ai_ci
Engine: InnoDB
Comments:
Column Name Datatype PK NN UQ B UN ZF AI G Default/Expression
account_id INT NULL
customer_id INT NULL
account_type VARCHAR(255) NULL
balance INT NULL
Table Name: accounts
Schema: hmbank
Charset/Collation: utf8mb4 utf8mb4_0900_ai_ci
Engine: InnoDB
Comments:
Foreign Key Name Referenced Table
cusomer_id `hmbank`.`customers`
Column Referenced Column

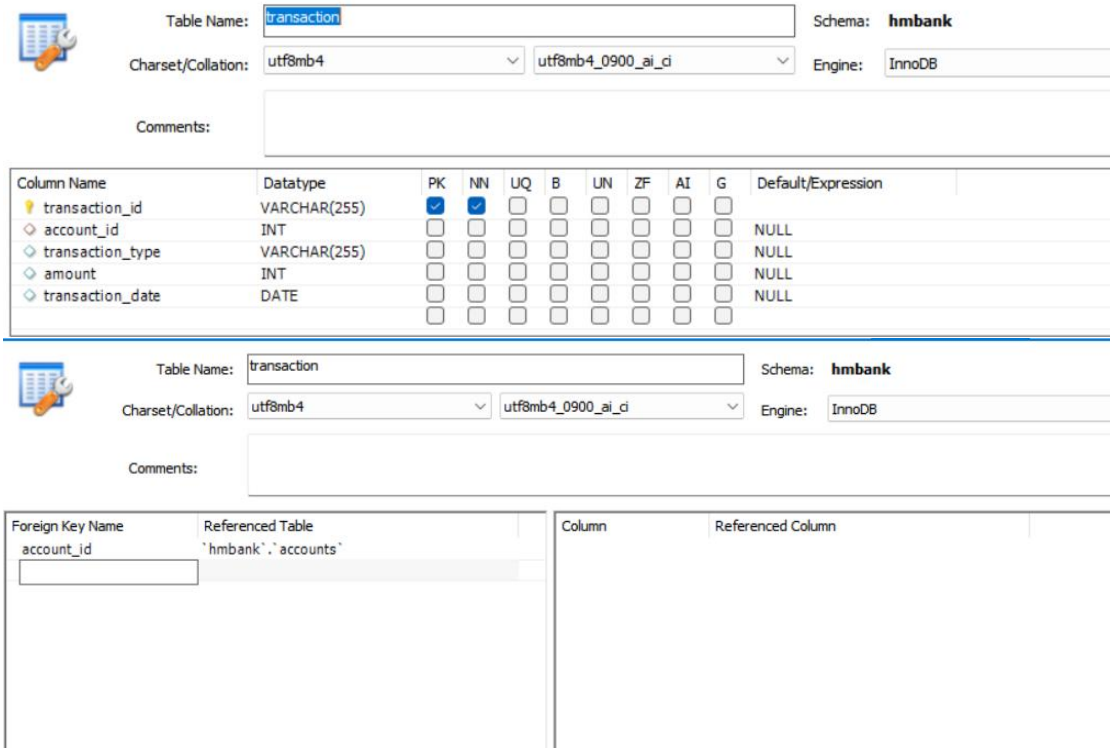


Table Name: transaction
Schema: hmbank
Charset/Collation: utf8mb4 utf8mb4_0900_ai_ci
Engine: InnoDB
Comments:
Column Name Datatype PK NN UQ B UN ZF AI G Default/Expression
transaction_id VARCHAR(255)
account_id INT NULL
transaction_type VARCHAR(255) NULL
amount INT NULL
transaction_date DATE NULL
Table Name: transaction
Schema: hmbank
Charset/Collation: utf8mb4 utf8mb4_0900_ai_ci
Engine: InnoDB
Comments:
Foreign Key Name Referenced Table
account_id `hmbank`.`accounts`
Column Referenced Column

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

Output:

```
CREATE TABLE Customers ( customer_id INT , first_name VARCHAR(255), last_name VARCHAR(255), DOB DATE, email VARCHAR(255), phone_number VARCHAR(255), address VARCHAR(255), PRIMARY KEY (customer_id) );
```

```
CREATE TABLE Accounts ( account_id INT , customer_id INT, account_type VARCHAR(255), balance DECIMAL(10, 2), PRIMARY KEY (account_id), FOREIGN KEY (customer_id) REFERENCES Customers(customer_id) );
```

```
CREATE TABLE Transactions ( transaction_id INT , account_id INT, transaction_type VARCHAR(255), amount DECIMAL(10, 2), transaction_date DATETIME, PRIMARY KEY (transaction_id), FOREIGN KEY (account_id) REFERENCES Accounts(account_id) );
```