Dataset Description

We will use the following tables for the practice questions:

CUSTOMERS

CustomerID (INT, Primary Key)

Name (VARCHAR(50))

Age (INT)

Address (VARCHAR(100))

Salary (DECIMAL(10, 2))

ORDERS

OrderID (INT, Primary Key)

OrderDate (DATE)

CustomerID (INT, Foreign Key references CUSTOMERS(CustomerID))

Amount (DECIMAL(10, 2))

Practice Questions

1. Create Table

Question: Create a table named PRODUCTS with the following columns:

ProductID (INT, Primary Key)

ProductName (VARCHAR(100))

Price (DECIMAL(10, 2))

Stock (INT)

Objective: Practice creating a table with various data types and a primary key constraint.

2. Insert Records

Question: Insert the following records into the CUSTOMERS table:

(1, 'John Doe', 30, '123 Elm Street', 60000.00)

(2, 'Jane Smith', 25, '456 Oak Avenue', 75000.00)

(3, 'Jim Brown', 35, '789 Pine Road', 50000.00)

Objective: Practice inserting multiple records into a table.

3. Insert Records into ORDERS Table

Question: Insert the following records into the ORDERS table:

(1, '2024-01-15', 1, 150.00)

(2, '2024-02-20', 2, 200.00)

(3, '2024-03-10', 3, 300.00)

(4, '2024-04-05', 1, 100.00)

Objective: Practice inserting records, including setting up foreign key relationships.

4. Create a Temporary Table

Question: Create a temporary table named TEMP\_CUSTOMERS with the same structure as the CUSTOMERS table.

Objective: Practice creating a temporary table based on an existing table's structure.

5. Insert Data into Temporary Table

Question: Insert all records from the CUSTOMERS table into the TEMP\_CUSTOMERS table.

Objective: Practice inserting data from one table into a temporary table.

6. Alter Table - Add Column

Question: Add a new column named Email (VARCHAR(100)) to the CUSTOMERS table.

Objective: Practice adding a new column to an existing table.

7. Alter Table - Modify Column

Question: Modify the Age column in the CUSTOMERS table to allow NULL values.

Objective: Practice modifying the definition of an existing column.

8. Alter Table - Drop Column

Question: Drop the Address column from the CUSTOMERS table.

Objective: Practice removing a column from an existing table.

9. Create Table with Foreign Key

Question: Create a table named PAYMENTS with the following columns:

PaymentID (INT, Primary Key)

PaymentDate (DATE)

CustomerID (INT, Foreign Key references CUSTOMERS(CustomerID))

Amount (DECIMAL(10, 2))

Objective: Practice creating a table with a foreign key constraint.

10. Alter Table - Add Unique Constraint

Question: Add a unique constraint to the Email column in the CUSTOMERS table.

Objective: Practice adding a unique constraint to an existing table.

Dataset

Here are the initial datasets for the tables:

CUSTOMERS

CustomerID Name Age Address Salary

1 John Doe 30 123 Elm Street 60000.00

2 Jane Smith 25 456 Oak Avenue 75000.00

3 Jim Brown 35 789 Pine Road 50000.00

ORDERS

OrderID OrderDate CustomerID Amount

1 2024-01-15 1 150.00

2 2024-02-20 2 200.00

3 2024-03-10 3 300.00

4 2024-04-05 1 100.00