

Lab Assignment-1

Creation and Insertion in Banking Database.

Database Description: A banking system maintains information about branches, customers, accounts, loans, and transactions. In this assignment, students will create tables and insert sample records.

Objective: To understand basic SQL commands for table creation (CREATE) and data insertion (INSERT) without using database constraints.

1. Create the following tables with their respective columns, data types and size:

Table Name	Columns	Datatypes	Size
BRANCH	BRANCH_CODE	VARCHAR	5
	BRANCH_NAME	VARCHAR	30
	CITY	VARCHAR	20

Table Name	Columns	Datatypes	Size
CUSTOMER	CUST_NO	VARCHAR	5
	CUST_NAME	VARCHAR	30
	ADDRESS	VARCHAR	40
	PHONE	NUMERIC	10

Table Name	Columns	Datatypes	Size
ACCOUNT	ACC_NO	VARCHAR	10
	CUST_NO	VARCHAR	5
	BRANCH_CODE	VARCHAR	5
	ACC_TYPE	VARCHAR	10
	BALANCE	NUMERIC	10

Table Name	Columns	Datatypes	Size
LOAN	LOAN_NO	VARCHAR	10
	CUST_NO	VARCHAR	5
	BRANCH_CODE	VARCHAR	5
	AMOUNT	NUMERIC	10

Table Name	Columns	Datatypes	Size
TRANSACTION_DETAILS	TRANS_ID	VARCHAR	10
	ACC_NO	VARCHAR	10
	TRANS_TYPE	VARCHAR	10
	TRANS_AMOUNT	NUMERIC	10
	TRANS_DATE	DATE	-

Solution :-

```
mysql> CREATE DATABASE 2341004117_BANKING_DB;  
Query OK, 1 row affected (0.30 sec)
```

```
mysql> USE 2341004117_BANKING_DB;  
Database changed
```

```
mysql> CREATE TABLE BRANCH(  
-> BARNCH_CODE VARCHAR(5),  
-> ^C  
mysql> CREATE TABLE BRANCH(  
-> BRANCH_CODE VARCHAR(5),  
-> BRANCH_NAME VARCHAR(30),  
-> CITY VARCHAR(20)  
-> );  
Query OK, 0 rows affected (0.26 sec)
```

```
mysql> CREATE TABLE CUSTOMER(  
-> CUST_NO VARCHAR(5),  
-> CUST_NAME VARCHAR(30),  
-> ADDRESS VARCHAR(40),  
-> PHONE NUMERIC(10)  
-> );  
Query OK, 0 rows affected (0.12 sec)
```

```
mysql> CREATE TABLE ACCOUNT(  
-> ACC_NO VARCHAR(10),  
-> CUST_NO VARCHAR(5),  
-> BRANCH_CODE VARCHAR(5),  
-> ACC_TYPE VARCHAR(10),  
-> BALANCE NUMERIC(10)  
-> );  
Query OK, 0 rows affected (0.13 sec)
```

```
mysql> CREATE TABLE LOAN(  
-> LOAN_NO VARCHAR(10),  
-> CUST_NO VARCHAR(5),  
-> BRANCH_CODE VARCHAR(5),  
-> AMOUNT NUMERIC(10)  
-> );  
Query OK, 0 rows affected (0.09 sec)
```

```
mysql> CREATE TABLE TRANSACTION_DETAILS(
-> TRANS_ID VARCHAR(10),
-> ACC_NO VARCHAR(10),
-> TRANS_TYPE VARCHAR(10),
-> TRANS_AMOUNT NUMERIC(10),
-> TRANS_DATE DATE
-> );
Query OK, 0 rows affected (0.10 sec)
```

2. Insert data into Branch table with the given data.

BRANCH_CODE	BRANCH_NAME	CITY
B001	Main Branch	Delhi
B002	City Branch	Mumbai
B003	Town Branch	Chennai
B004	Central Branch	Delhi
B005	Market Branch	Bengaluru

Solution:-

```
mysql> INSERT INTO BRANCH VALUES
-> ('B001' , 'Main Branch' , 'Delhi' ),
-> ('B002' , 'City Branch' , 'Mumbai' ),
-> ('B003' , 'Town Branch' , 'Chennai' ),
-> ('B004' , 'Central Branch' , 'Delhi' ),
-> ('B005' , 'Market Branch' , 'Bengaluru' );
Query OK, 5 rows affected (0.19 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

3. Insert data into Customer table with the given data.

CUST_NO	CUST_NAME	ADDRESS	PHONE
C001	Ankit Kumar	Delhi	9876543210
C002	Anjali Verma	Mumbai	9123456780
C003	Suresh Patel	Ahmedabad	9988776655
C004	Neha Sharma	Jaipur	9090909090
C005	Amit Singh	Lucknow	8899776655

```
mysql> INSERT INTO CUSTOMER VALUES
-> ('C001' , 'Ankit Kumar' , 'Delhi' , 9876543210),
-> ('C002' , 'Anjali Verma' , 'Mumbai' , 9876512345),
-> ('C003' , 'Suresh Patel' , 'Ahmedabad' , 9988776655),
-> ('C004' , 'Neha Sharma' , 'Jaipur' , 9090909090),
-> ('C005' , 'Amit Singh' , 'Lucknow' , 8899776655);
Query OK, 5 rows affected (0.14 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

4. Insert data into Account table with the given data.

ACC_NO	CUST_NO	BRANCH_CODE	ACC_TYPE	BALANCE
A1001	C001	B001	Savings	25000
A1002	C002	B002	Current	40000
A1003	C003	B003	Savings	18000
A1004	C004	B004	Savings	32000
A1005	C005	B005	Current	50000

Solution:-

```
mysql> INSERT INTO ACCOUNT VALUES
-> ('A1001' , 'C001' , 'B001' , 'Savings' , 25000),
-> ('A1002' , 'C002' , 'B002' , 'Current' , 40000),
-> ('A1003' , 'C003' , 'B003' , 'Savings' , 18000),
-> ('A1004' , 'C004' , 'B004' , 'Savings' , 32000),
-> ('A1005' , 'C005' , 'B005' , 'Current' , 50000);
Query OK, 5 rows affected (0.50 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

5. Insert data into Loan table with the given data.

LOAN_NO	CUST_NO	BRANCH_CODE	AMOUNT
L2001	C001	B001	150000
L2002	C002	B002	200000
L2003	C003	B003	120000
L2004	C004	B004	180000
L2005	C005	B005	250000

Solution:-

```
mysql> INSERT INTO LOAN VALUES
-> ('L2001','C001','B001',150000),
-> ('L2002','C002','B002',200000),
-> ('L2003','C003','B003',120000),
-> ('L2004','C004','B004',180000),
-> ('L2005','C005','B005',250000);
Query OK, 5 rows affected (0.07 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

6. Insert data into Transaction Details table with the given data.

TRANS_ID	ACC_NO	TRANS_TYPE	TRANS_AMOUNT	TRANS_DATE
T001	A1001	Deposit	5000	2025-JAN-10
T002	A1002	Withdraw	3000	2025-JAN-12
T003	A1003	Deposit	7000	2025-OCT-15
T004	A1004	Withdraw	2000	2024-JAN-18
T005	A1005	Deposit	10000	2024-MAR-20

Solution:-

```
mysql> INSERT INTO TRANSACTION_DETAILS VALUES
-> ('T001','A1001','Deposit',5000,'2025-01-10'),
-> ('T002','A1002','Withdraw',3000,'2025-01-12'),
-> ('T003','A1003','Deposit',7000,'2025-10-15'),
-> ('T004','A1004','Withdraw',2000,'2024-01-18'),
-> ('T005','A1005','Deposit',10000,'2024-03-20');
Query OK, 5 rows affected (0.02 sec)
Records: 5  Duplicates: 0  Warnings: 0
```