

Create table Screenshots

```
mysql> USE CSC174
Database changed
mysql> CREATE TABLE Person (
  ->     taxPayerId CHAR(9) PRIMARY KEY,
  ->     name VARCHAR(100) NOT NULL,
  ->     paddress VARCHAR(255) NOT NULL
  -> );
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> CREATE TABLE Customer (
  ->     taxPayerId CHAR(9) PRIMARY KEY,
  ->     sinceYear INT NOT NULL,
  ->     FOREIGN KEY (taxPayerId) REFERENCES Person(taxPayerId)
  -> );
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> CREATE TABLE Employee (
  ->     taxPayerId CHAR(9) PRIMARY KEY,
  ->     title VARCHAR(100) NOT NULL,
  ->     salary DECIMAL(10,2) NOT NULL,
  ->     FOREIGN KEY (taxPayerId) REFERENCES Person(taxPayerId)
  -> );
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> CREATE TABLE Account (
  ->     accNum CHAR(9) PRIMARY KEY,
  ->     type VARCHAR(20) NOT NULL,
  ->     balance DECIMAL(15,2) NOT NULL
  -> );
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> CREATE TABLE Owns (
  ->     taxPayerId CHAR(9),
  ->     accNum CHAR(9),
  ->     PRIMARY KEY (taxPayerId, accNum),
  ->     FOREIGN KEY (accNum) REFERENCES Account(accNum),
  ->     FOREIGN KEY (taxPayerId) REFERENCES Customer(taxPayerId)
  -> );
Query OK, 0 rows affected (0.01 sec)
```

```

mysql>
mysql> CREATE TABLE Checking (
    ->     accNum CHAR(9) PRIMARY KEY,
    ->     noFreeChecks INT NOT NULL,
    ->     FOREIGN KEY (accNum) REFERENCES Account(accNum)
    -> );
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> CREATE TABLE Saving (
    ->     accNum CHAR(9) PRIMARY KEY,
    ->     intRate DECIMAL(5,2) NOT NULL,
    ->     FOREIGN KEY (accNum) REFERENCES Account(accNum)
    -> );
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> CREATE TABLE Loan (
    ->     loanNo CHAR(9) PRIMARY KEY,
    ->     amount DECIMAL(15,2) NOT NULL
    -> );
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> CREATE TABLE Borrow (
    ->     taxPayerId CHAR(9),
    ->     loanNo CHAR(9),
    ->     PRIMARY KEY (taxPayerId, loanNo),
    ->     FOREIGN KEY (loanNo) REFERENCES Loan(loanNo),
    ->     FOREIGN KEY (taxPayerId) REFERENCES Customer(taxPayerId)
    -> );
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> CREATE TABLE Acc_transaction (
    ->     accNum CHAR(9),
    ->     tDate DATE NOT NULL,
    ->     tTime TIME NOT NULL,
    ->     amount DECIMAL(15,2) NOT NULL,
    ->     type VARCHAR(20) NOT NULL,
    ->     FOREIGN KEY (accNum) REFERENCES Account(accNum)
    -> );
Query OK, 0 rows affected (0.01 sec)

```

Insert Screenshots

```
mysql> INSERT INTO Person VALUES ('123456789', 'John Doe', '123 Elm St');
Query OK, 1 row affected (0.03 sec)

mysql> INSERT INTO Person VALUES ('987654321', 'Alice Smith', '456 Oak St');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Person VALUES ('555666777', 'Bob Johnson', '789 Pine St');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Customer VALUES ('123456789', 2010);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Customer VALUES ('555666777', 2015);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Employee VALUES ('987654321', 'Manager', 75000.00);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Account VALUES ('122456799', 'Checking', 5000.00);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Account VALUES ('222333444', 'Saving', 12000.00);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Account VALUES ('333444555', 'Checking', 3000.00);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Checking VALUES ('122456799', 50);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Checking VALUES ('333444555', 30);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Saving VALUES ('222333444', 2.5);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Owns VALUES ('123456789', '122456799');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Owns VALUES ('555666777', '222333444');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Loan VALUES ('L001', 10000.00);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Loan VALUES ('L002', 5000.00);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Borrow VALUES ('123456789', 'L001');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Borrow VALUES ('555666777', 'L002');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Acc_transaction VALUES ('122456799', '2025-03-10', '14:30:00', 200.00, 'Deposit');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Acc_transaction VALUES ('222333444', '2025-03-09', '09:15:00', 500.00, 'Withdrawal');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Acc_transaction VALUES ('333444555', '2025-03-08', '16:45:00', 100.00, 'Deposit');
Query OK, 1 row affected (0.00 sec)
```

Create view Screenshots

```
mysql> CREATE VIEW employeeView AS
-> SELECT p.taxPayerId, p.name, p.paddress, e.title, e.salary
-> FROM Employee AS e, Person AS p
-> WHERE e.taxPayerId = p.taxPayerId;
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> CREATE VIEW customerView AS
-> SELECT p.taxPayerId, p.name, p.paddress, c.sinceYear
-> FROM Person AS p, Customer AS c
-> WHERE c.taxPayerId = p.taxPayerId;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> CREATE VIEW checkingView AS
-> SELECT a.accNum, a.type, a.balance, c.noFreeChecks
-> FROM Account AS a, Checking AS c
-> WHERE a.accNum = c.accNum;
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> CREATE VIEW savingView AS
-> SELECT a.accNum, a.type, a.balance, s.intRate
-> FROM Account AS a, Saving AS s
-> WHERE a.accNum = s.accNum;
Query OK, 0 rows affected (0.00 sec)
```

Drop view and table Screen shots

```
mysql> DROP VIEW IF EXISTS employeeView;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP VIEW IF EXISTS customerView;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP VIEW IF EXISTS checkingView;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP VIEW IF EXISTS savingView;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> DROP TABLE IF EXISTS Acc_transaction;
Query OK, 0 rows affected (0.02 sec)

mysql> DROP TABLE IF EXISTS Borrow;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE IF EXISTS Loan;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP TABLE IF EXISTS Checking;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE IF EXISTS Saving;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP TABLE IF EXISTS Owns;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE IF EXISTS Account;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP TABLE IF EXISTS Employee;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP TABLE IF EXISTS Customer;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP TABLE IF EXISTS Person;
Query OK, 0 rows affected (0.01 sec)
```

Result from selecting from the view

```
mysql> SELECT * FROM employeeView;
```

taxPayerId	name	paddress	title	salary
987654321	Alice Smith	456 Oak St	Manager	75000.00

```
1 row in set (0.02 sec)
```



```
mysql> SELECT * FROM customerView;
```

taxPayerId	name	paddress	sinceYear
123456789	John Doe	123 Elm St	2010
555666777	Bob Johnson	789 Pine St	2015

```
2 rows in set (0.00 sec)
```



```
mysql> SELECT * FROM checkingView;
```

accNum	type	balance	noFreeChecks
122456799	Checking	5000.00	50
333444555	Checking	3000.00	30

```
2 rows in set (0.00 sec)
```



```
mysql> SELECT * FROM savingView;
```

accNum	type	balance	intRate
222333444	Saving	12000.00	2.50

```
1 row in set (0.00 sec)
```