

# MySQL Table Preparation

Create a database called COMPANY1 in MySQL.

```
-- Create the database to hold the tables
CREATE DATABASE COMPANY1;

-- Select the newly created database
USE COMPANY1;
```

Write and execute DDL (Data Definition Language) SQL statements to create the EMP and DEPT tables based on the structure provided

```
-- Create the DEPT table
CREATE TABLE DEPT (
    DEPTNO INT PRIMARY KEY,           -- DEPTNO is the primary key of the DEPT table
    DNAME VARCHAR(20),               -- DNAME stores the name of the department
    LOC VARCHAR(20)                  -- LOC stores the location of the department
);

-- Create the EMP table
CREATE TABLE EMP (
    EMPNO INT PRIMARY KEY,           -- EMPNO is the primary key of the EMP table
    ENAME VARCHAR(20),               -- ENAME stores the employee's name
    JOB VARCHAR(20),                 -- JOB stores the name of the job of the employee
    MGR INT,                         -- MGR stores the manager's EMPNO
    HIREDATE DATE,                   -- HIREDATE stores the date the employee was hired
    SAL DECIMAL(10, 2),              -- SAL stores the employee's salary
    COMM DECIMAL(10, 2),             -- COMM stores the employee's commission
    DEPTNO INT,                     -- DEPTNO stores the department number, foreign key
    FOREIGN KEY (DEPTNO) REFERENCES DEPT(DEPTNO) -- Foreign key links EMP's DEPTNO to DEPT table
);
```

Write the DML (Data Manipulation Language) to insert the sample data for the EMP and DEPT tables provided

```
INSERT INTO DEPT (DEPTNO, DNAME, LOC) VALUES
(10, 'ACCOUNTING', 'NEW YORK'),
(20, 'RESEARCH', 'DALLAS'),
(30, 'SALES', 'CHICAGO');

INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES
(7369, 'SMITH', 'CLERK', 7902, '1980-12-17', 800.00, NULL, 20),
(7499, 'ALLEN', 'SALESMAN', 7698, '1981-02-20', 1600.00, 300.00, 30),
(7521, 'WARD', 'SALESMAN', 7698, '1981-02-22', 1250.00, 500.00, 30),
(7566, 'JONES', 'MANAGER', 7839, '1981-04-02', 2975.00, NULL, 20),
(7654, 'MARTIN', 'SALESMAN', 7698, '1981-09-28', 1250.00, 1400.00, 30),
(7698, 'BLAKE', 'MANAGER', 7839, '1981-05-01', 2850.00, NULL, 30),
(7782, 'CLARK', 'MANAGER', 7839, '1981-06-09', 2450.00, NULL, 10),
(7788, 'SCOTT', 'ANALYST', 7566, '1987-04-19', 3000.00, NULL, 20),
(7839, 'KING', 'PRESIDENT', NULL, '1981-11-17', 5000.00, NULL, 10),
(7844, 'TURNER', 'SALESMAN', 7698, '1981-09-08', 1500.00, 0.00, 30),
(7876, 'ADAMS', 'CLERK', 7788, '1987-05-23', 1100.00, NULL, 20),
(7900, 'JAMES', 'CLERK', 7698, '1981-12-03', 950.00, NULL, 30),
(7902, 'FORD', 'ANALYST', 7566, '1981-12-03', 3000.00, NULL, 20),
(7934, 'MILLER', 'CLERK', 7782, '1982-01-23', 1300.00, NULL, 10);
```

Check that the data has been inserted correctly by querying the tables to ensure the rows match the provided sample data.

```
SELECT * FROM DEPT;  
SELECT * FROM EMP;
```

| DEPTNO | DNAME      | LOC      |
|--------|------------|----------|
| 10     | ACCOUNTING | NEW YORK |
| 20     | RESEARCH   | DALLAS   |
| 30     | SALES      | CHICAGO  |

  

| EMPNO | ENAME  | JOB       | MGR  | HIREDATE   | SAL     | COMM    | DEPTNO |
|-------|--------|-----------|------|------------|---------|---------|--------|
| 7369  | SMITH  | CLERK     | 7902 | 1980-12-17 | 800.00  | NULL    | 20     |
| 7499  | ALLEN  | SALESMAN  | 7698 | 1981-02-20 | 1600.00 | 300.00  | 30     |
| 7521  | WARD   | SALESMAN  | 7698 | 1981-02-22 | 1250.00 | 500.00  | 30     |
| 7566  | JONES  | MANAGER   | 7839 | 1981-04-02 | 2975.00 | NULL    | 20     |
| 7654  | MARTIN | SALESMAN  | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30     |
| 7698  | BLAKE  | MANAGER   | 7839 | 1981-05-01 | 2850.00 | NULL    | 30     |
| 7782  | CLARK  | MANAGER   | 7839 | 1981-06-09 | 2450.00 | NULL    | 10     |
| 7788  | SCOTT  | ANALYST   | 7566 | 1987-04-19 | 3000.00 | NULL    | 20     |
| 7839  | KING   | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL    | 10     |
| 7844  | TURNER | SALESMAN  | 7698 | 1981-09-08 | 1500.00 | 0.00    | 30     |
| 7876  | ADAMS  | CLERK     | 7788 | 1987-05-23 | 1100.00 | NULL    | 20     |
| 7900  | JAMES  | CLERK     | 7698 | 1981-12-03 | 950.00  | NULL    | 30     |
| 7902  | FORD   | ANALYST   | 7566 | 1981-12-03 | 3000.00 | NULL    | 20     |
| 7934  | MILLER | CLERK     | 7782 | 1982-01-23 | 1300.00 | NULL    | 10     |