

EXPERIMENT - 6

DBMS - LAB

CODE-

```
CREATE DATABASE EmployeeDB;
```

```
USE EmployeeDB;
```

```
CREATE TABLE DEPT (
```

```
    DEPTNO INT PRIMARY KEY,
```

```
    DNAME VARCHAR(50),
```

```
    LOC VARCHAR(50)
```

```
);
```

```
INSERT INTO DEPT (DEPTNO, DNAME, LOC) VALUES (10, 'ACCOUNTING', 'NEW YORK');
```

```
INSERT INTO DEPT (DEPTNO, DNAME, LOC) VALUES (20, 'RESEARCH', 'DALLAS');
```

```
INSERT INTO DEPT (DEPTNO, DNAME, LOC) VALUES (30, 'SALES', 'CHICAGO');
```

```
INSERT INTO DEPT (DEPTNO, DNAME, LOC) VALUES (40, 'OPERATIONS', 'BOSTON');
```

```
CREATE TABLE EMP (
```

```
    EMPNO INT PRIMARY KEY,
```

```
    ENAME VARCHAR(50),
```

```
    JOB VARCHAR(50),
```

```
MGR INT,  
  
HIREDATE DATE,  
  
SAL DECIMAL(10, 2),  
  
COMM DECIMAL(10, 2),  
  
DEPTNO INT,  
  
FOREIGN KEY (DEPTNO) REFERENCES DEPT(DEPTNO)  
  
);  
  
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7369, 'SMITH', 'CLERK', 7902, '1980-12-17', 500, 800, 20);  
  
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7499, 'ALLEN', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30);  
  
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7521, 'WARD', 'SALESMAN', 7698, '1981-02-22', 1250, 500, 30);  
  
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7566, 'JONES', 'MANAGER', 7839, '1981-04-02', 2975, NULL, 20);  
  
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7654, 'MARTIN', 'SALESMAN', 7698, '1981-09-28', 1250, 1400, 30);  
  
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7698, 'BLAKE', 'MANAGER', 7839, '1981-05-01', 2850, NULL, 30);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7782, 'CLARK', 'MANAGER', 7839, '1981-06-09', 2450, NULL, 10);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7788, 'SCOTT', 'ANALYST', 7566, '1982-12-09', 3000, NULL, 20);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7839, 'KING', 'PRESIDENT', NULL, '1981-11-17', 5000, NULL, 10);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7844, 'TURNER', 'SALESMAN', 7698, '1981-09-08', 1500, 0, 30);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7876, 'ADAMS', 'CLERK', 7788, '1983-01-12', 1100, NULL, 20);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7900, 'JAMES', 'CLERK', 7698, '1981-12-03', 950, NULL, 30);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7902, 'FORD', 'ANALYST', 7566, '1981-12-03', 3000, NULL, 20);
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES  
(7934, 'MILLER', 'CLERK', 7782, '1982-01-23', 1300, NULL, 10);
```

```
SELECT AVG(SAL) AS Avg_Salary FROM EMP;
```

```
SELECT COUNT(*) AS Number_of_Employees FROM EMP;
```

```
SELECT COUNT(DISTINCT EMPNO) AS Distinct_Employees FROM EMP;
```

```
SELECT JOB, SUM(SAL) AS Total_Salary FROM EMP GROUP BY JOB;
```

SELECT * FROM EMP WHERE SAL = (SELECT MAX(SAL) FROM EMP);

SELECT * FROM EMP WHERE DEPTNO = 10 AND SAL = (SELECT MAX(SAL) FROM EMP WHERE DEPTNO = 10);

SELECT * FROM EMP WHERE SAL = (SELECT (MAX(SAL) + MIN(SAL)) / 2 FROM EMP);

SELECT HIREDATE, COUNT(*) AS Number_of_Employees FROM EMP GROUP BY HIREDATE
HAVING COUNT(*) > 1;

SELECT UPPER(ENAME) AS Upper_Name, LOWER(ENAME) AS Lower_Name FROM EMP;

SELECT ENAME, HIREDATE, HIREDATE + INTERVAL 3 DAY AS Date_After_3_Days FROM EMP;

1.

```
mysql> -- 1. Retrieve the average salary of all employees
mysql> SELECT AVG(SAL) AS Avg_Salary FROM EMP;
+-----+
| Avg_Salary |
+-----+
| 2051.785714 |
+-----+
1 row in set (0.00 sec)
```

2.

```
mysql> -- 2. Retrieve the number of employees
mysql> SELECT COUNT(*) AS Number_of_Employees FROM EMP;
+-----+
| Number_of_Employees |
+-----+
| 14 |
+-----+
1 row in set (0.00 sec)
```

3.

```
mysql> -- 3. Retrieve distinct number of employees
mysql> SELECT COUNT(DISTINCT EMPNO) AS Distinct_Employees FROM EMP;
+-----+
| Distinct_Employees |
+-----+
|                14 |
+-----+
1 row in set (0.00 sec)
```

4.

```
mysql> -- 4. Retrieve total salary of employees grouped by job
mysql> SELECT JOB, SUM(SAL) AS Total_Salary FROM EMP GROUP BY JOB;
+-----+-----+
| JOB      | Total_Salary |
+-----+-----+
| CLERK     |      3850.00 |
| SALESMAN  |      5600.00 |
| MANAGER   |      8275.00 |
| ANALYST   |      6000.00 |
| PRESIDENT |      5000.00 |
+-----+-----+
5 rows in set (0.00 sec)
```

5.

```
mysql> -- 5. Display the employee information with the maximum salary
mysql> SELECT * FROM EMP WHERE SAL = (SELECT MAX(SAL) FROM EMP);
+-----+-----+-----+-----+-----+-----+-----+-----+
| EMPNO | ENAME | JOB      | MGR | HIREDATE   | SAL      | COMM | DEPTNO |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7839 | KING  | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

6.

```
mysql> -- 6. Find the highest-paid employee in department 10
mysql> SELECT * FROM EMP WHERE DEPTNO = 10 AND SAL = (SELECT MAX(SAL) FROM EMP WHERE DEPTNO = 10);
+-----+-----+-----+-----+-----+-----+-----+-----+
| EMPNO | ENAME | JOB      | MGR | HIREDATE   | SAL      | COMM | DEPTNO |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7839 | KING  | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

7.

```
mysql>
mysql> -- 7. List the employees whose salary is equal to the average of the maximum and minimum salary
mysql> SELECT * FROM EMP WHERE SAL = (SELECT (MAX(SAL) + MIN(SAL)) / 2 FROM EMP);
Empty set (0.00 sec)
```

8.

```
mysql> -- 8. List the employees who joined the company on the same date
mysql> SELECT HIREDATE, COUNT(*) AS Number_of_Employees FROM EMP GROUP BY HIREDATE HAVING COUNT(*) > 1;
+-----+-----+
| HIREDATE | Number_of_Employees |
+-----+-----+
| 1981-12-03 | 2 |
+-----+-----+
1 row in set (0.00 sec)
```

9.

```
mysql> -- 9. Display the employee names in upper and lower case
mysql> SELECT UPPER(ENAME) AS Upper_Name, LOWER(ENAME) AS Lower_Name FROM EMP;
+-----+-----+
| Upper_Name | Lower_Name |
+-----+-----+
| SMITH      | smith      |
| ALLEN      | allen      |
| WARD       | ward       |
| JONES      | jones      |
| MARTIN     | martin     |
| BLAKE      | blake      |
| CLARK      | clark      |
| SCOTT      | scott      |
| KING       | king       |
| TURNER     | turner     |
| ADAMS      | adams      |
| JAMES      | james      |
| FORD       | ford       |
| MILLER     | miller     |
+-----+-----+
14 rows in set (0.00 sec)
```

10.

```
mysql> -- 10. Find the date 3 days after the hiredate
mysql> SELECT ENAME, HIREDATE, HIREDATE + INTERVAL 3 DAY AS Date_After_3_Days FROM EMP;
```

ENAME	HIREDATE	Date_After_3_Days
SMITH	1980-12-17	1980-12-20
ALLEN	1981-02-20	1981-02-23
WARD	1981-02-22	1981-02-25
JONES	1981-04-02	1981-04-05
MARTIN	1981-09-28	1981-10-01
BLAKE	1981-05-01	1981-05-04
CLARK	1981-06-09	1981-06-12
SCOTT	1982-12-09	1982-12-12
KING	1981-11-17	1981-11-20
TURNER	1981-09-08	1981-09-11
ADAMS	1983-01-12	1983-01-15
JAMES	1981-12-03	1981-12-06
FORD	1981-12-03	1981-12-06
MILLER	1982-01-23	1982-01-26

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