DBMS Lab – Experiment 6

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Creating the Tables:

```
mysql> CREATE TABLE EMPTABLE (EMPNO INT PRIMARY KEY,ENAME VARCHAR(50),JOB VARCHAR(20),MGR INT,HIREDATE DATE,SAL DECIMAL(10,2),COMM DECIMAL(10,2),DEPTNO INT)
;
Query OK, 0 rows affected (0.02 sec)

mysql> INSERT INTO EMPTABLE (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO) VALUES
    -> (7369, 'SMITH', 'CLERK', 7902, '1980-12-17', 500, 800, 20),
    -> (7499, 'ALLEN', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30),
    -> (7521, 'WARD', 'SALESMAN', 7698, '1981-02-22', 1250, 500, 30),
    -> (7566, 'JONES', 'MANAGER', 7839, '1981-04-02', 2975, NULL, 20),
    -> (7654, 'MARTIN', 'SALESMAN', 7698, '1981-09-28', 1250, 1400, 30),
    -> (7698, 'BLAKE', 'MANAGER', 7839, '1981-05-01', 2850, NULL, 30),
    -> (7782, 'CLARK', 'MANAGER', 7839, '1981-06-09', 2450, NULL, 10),
    -> (7788, 'SCOTT', 'ANALYST', 7566, '1982-12-09', 3000, NULL, 20),
    -> (7839, 'KING', 'PRESIDENT', NULL, '1981-11-17', 5000, NULL, 10),
    -> (7844, 'TURNER', 'SALESMAN', 7698, '1981-09-08', 1500, 0, 30),
    -> (7876, 'ADAMS', 'CLERK', 7788, '1983-01-12', 1100, NULL, 20),
    -> (7900, 'JAMES', 'CLERK', 7698, '1981-12-03', 950, NULL, 30),
    -> (7902, 'FORD', 'ANALYST', 7566, '1981-12-03', 3000, NULL, 20),
    -> (7934, 'MILLER', 'CLERK', 7782, '1982-01-23', 1300, NULL, 10);
Query OK, 14 rows affected (0.01 sec)
Records: 14  Duplicates: 0  Warnings: 0

mysql> CREATE TABLE DEPTTABLE(DEPTNO INT PRIMARY KEY,DNAME CHAR(50),LOC CHAR(50));
Query OK, 0 rows affected (0.02 sec)

mysql> INSERT INTO DEPTTABLE (DEPTNO, DNAME, LOC) VALUES
    -> (10, 'ACCOUNTING', 'NEW YORK'),
    -> (20, 'RESEARCH', 'DALLAS'),
    -> (30, 'SALES', 'CHICAGO'),
    -> (40, 'OPERATIONS', 'BOSTON');
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

1.

```
mysql> SELECT AVG(SAL) FROM EMPTABLE;
+-------------+
| AVG(SAL)    |
+-------------+
| 2051.785714 |
+-------------+
1 row in set (0.00 sec)
```

2.

```
mysql> SELECT COUNT(*) FROM EMPTABLE;
+----------+
| COUNT(*) |
+----------+
|       14 |
+----------+
1 row in set (0.00 sec)
```

3.

```
mysql> SELECT COUNT(DISTINCT ENAME) FROM EMPTABLE;
+-----------------------+
| COUNT(DISTINCT ENAME) |
+-----------------------+
|                    14 |
+-----------------------+
1 row in set (0.00 sec)
```

4.

```
mysql> SELECT JOB, SUM(SAL) FROM EMPTABLE GROUP BY JOB;
+-----------+----------+
| JOB       | SUM(SAL) |
+-----------+----------+
| CLERK     |  3850.00 |
| SALESMAN  |  5600.00 |
| MANAGER   |  8275.00 |
| ANALYST   |  6000.00 |
| PRESIDENT |  5000.00 |
+-----------+----------+
5 rows in set (0.00 sec)
```

5.

```
mysql>  SELECT * FROM EMPTABLE WHERE SAL=(SELECT MAX(SAL) FROM EMPTABLE WHERE SAL<(SELECT MAX(SAL) FROM EMPTABLE));
+-------+-------+---------+------+------------+---------+------+--------+
| EMPNO | ENAME | JOB     | MGR  | HIREDATE   | SAL     | COMM | DEPTNO |
+-------+-------+---------+------+------------+---------+------+--------+
|  7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL |     20 |
|  7902 | FORD  | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL |     20 |
+-------+-------+---------+------+------------+---------+------+--------+
2 rows in set (0.00 sec)
```

6.

```
mysql> SELECT * FROM EMPTABLE WHERE SAL=(SELECT MAX(SAL) FROM EMPTABLE 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> SELECT * FROM EMPTABLE WHERE SAL=(SELECT (MAX(SAL)+MIN(SAL))/2 FROM EMPTABLE);
Empty set (0.00 sec)
```

8.

```
mysql> SELECT * FROM EMPTABLE E WHERE HIREDATE IN (SELECT HIREDATE FROM EMPTABLE WHERE EMPNO <> E.EMPNO);
+-------+-------+---------+------+------------+---------+------+--------+
| EMPNO | ENAME | JOB     | MGR  | HIREDATE   | SAL     | COMM | DEPTNO |
+-------+-------+---------+------+------------+---------+------+--------+
|  7900 | JAMES | CLERK   | 7698 | 1981-12-03 |  950.00 | NULL |     30 |
|  7902 | FORD  | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL |     20 |
+-------+-------+---------+------+------------+---------+------+--------+
2 rows in set (0.00 sec)
```

9.

```
mysql> SELECT UCASE(ENAME) FROM EMPTABLE;
+--------------+
| UCASE(ENAME) |
+--------------+
| SMITH        |
| ALLEN        |
| WARD         |
| JONES        |
| MARTIN       |
| BLAKE        |
| CLARK        |
| SCOTT        |
| KING         |
| TURNER       |
| ADAMS        |
| JAMES        |
| FORD         |
| MILLER       |
+--------------+
14 rows in set (0.00 sec)

mysql> SELECT LCASE(ENAME) FROM EMPTABLE;
+--------------+
| LCASE(ENAME) |
+--------------+
| smith        |
| allen        |
| ward         |
| jones        |
| martin       |
| blake        |
| clark        |
| scott        |
| king         |
| turner       |
| adams        |
| james        |
| ford         |
| miller       |
+--------------+
14 rows in set (0.00 sec)
```

10.

```
mysql> SELECT EMPNO,ENAME,HIREDATE,DATE_ADD(HIREDATE,INTERVAL 3 DAY) FROM EMPTABLE;
+-------+--------+------------+---------------------------------+
| EMPNO | ENAME  | HIREDATE   | DATE_ADD(HIREDATE,INTERVAL 3 DAY) |
+-------+--------+------------+---------------------------------+
|  7369 | SMITH  | 1980-12-17 | 1980-12-20                      |
|  7499 | ALLEN  | 1981-02-20 | 1981-02-23                      |
|  7521 | WARD   | 1981-02-22 | 1981-02-25                      |
|  7566 | JONES  | 1981-04-02 | 1981-04-05                      |
|  7654 | MARTIN | 1981-09-28 | 1981-10-01                      |
|  7698 | BLAKE  | 1981-05-01 | 1981-05-04                      |
|  7782 | CLARK  | 1981-06-09 | 1981-06-12                      |
|  7788 | SCOTT  | 1982-12-09 | 1982-12-12                      |
|  7839 | KING   | 1981-11-17 | 1981-11-20                      |
|  7844 | TURNER | 1981-09-08 | 1981-09-11                      |
|  7876 | ADAMS  | 1983-01-12 | 1983-01-15                      |
|  7900 | JAMES  | 1981-12-03 | 1981-12-06                      |
|  7902 | FORD   | 1981-12-03 | 1981-12-06                      |
|  7934 | MILLER | 1982-01-23 | 1982-01-26                      |
+-------+--------+------------+---------------------------------+
14 rows in set (0.00 sec)
```