Experiment-6

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Batch-2

Questions: -

1. **Create the following two tables (EMP and DEPT)**

EMP TABLE

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	500	800	20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30

7876	ADAMS	CLERK	7788	12-JAN-83	1100	20
7900	JAMES	CLERK	7698	03-DEC-81	950	30
7902	FORD	ANALYST	7566	03-DEC-81	3000	20
7934	MILLER	CLERK	7782	23-JAN-82	1300	10

DEPT TABLE

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

Write the Queries for the following using In-built functions.

1. Retrieve average salary of all employees.
2. Retrieve the number of employees.
3. Retrieve distinct number of employees.
4. Retrieve total salary of employee group by job.
5. Display the employee information with maximum salary.
6. Find the highest paid employee in department 10.
7. List the emps whose salary is equal to the average of max and minimum.
8. List the emps who joined in the company on the same date.
9. Display the employee names in upper and lower case.
10. find the date of 3 days later from hire date.
11. Solution: -
12. Creation && insertion on both the tables: -
13. Screenshot:

14.

```
| supplier_part     |
| works_on          |
+-------------------+
12 rows in set (0.01 sec)

mysql> 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
    -> );
Query OK, 0 rows affected (0.07 sec)

mysql> CREATE TABLE DEPT (
    ->     DEPTNO INT PRIMARY KEY,
    ->     DNAME VARCHAR(50),
    ->     LOC VARCHAR(50)
    -> );
Query OK, 0 rows affected (0.06 sec)
```

15.

```
Query OK, 0 rows affected (0.06 sec)

mysql> INSERT INTO EMP (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 (0.02 sec)
Records: 14  Duplicates: 0  Warnings: 0

mysql> INSERT INTO DEPT (DEPTNO, DNAME, LOC) VALUES
    -> (10, 'ACCOUNTING', 'NEW YORK'),
    -> (20, 'RESEARCH', 'DALLAS'),
    -> (30, 'SALES', 'CHICAGO'),
    -> (40, 'OPERATIONS', 'BOSTON');
Query OK, 4 rows affected (0.02 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

16. Retrieve average salary of all employees.

17.
```
mysql> SELECT AVG(SAL) AS AverageSalary
    -> FROM EMP;
+---------------+
| AverageSalary |
+---------------+
|   2051.785714 |
+---------------+
1 row in set (0.00 sec)
```

18. Retrieve the number of employees.

19.
```
mysql> SELECT COUNT(*) AS TotalEmployees
    -> FROM EMP;
+----------------+
| TotalEmployees |
+----------------+
|             14 |
+----------------+
1 row in set (0.01 sec)
```

20. Retrieve distinct number of employees.

```
mysql> SELECT COUNT(DISTINCT EMPNO) AS DistinctEmployees
    -> FROM EMP;
+-------------------+
| DistinctEmployees |
+-------------------+
|                14 |
+-------------------+
1 row in set (0.00 sec)
```

21. Retrieve total salary of employee group by job.

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

22. 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)
```

23. List the emps whose salary is equal to the average of max and minimum.

24.

```
mysql> SELECT (MAX(SAL) + MIN(SAL)) / 2 AS AverageSalary
    -> FROM EMP;
+---------------+
| AverageSalary |
+---------------+
|   2750.000000 |
+---------------+
1 row in set (0.00 sec)

mysql>
```

25. List the emps who joined in the company on the same date.

1.

```
mysql> SELECT ENAME, HIREDATE
    -> FROM EMP
    -> WHERE HIREDATE IN (
    ->     SELECT HIREDATE
    ->     FROM EMP
    ->     GROUP BY HIREDATE
    ->     HAVING COUNT(*) > 1
    -> );
+-------+------------+
| ENAME | HIREDATE   |
+-------+------------+
| JAMES | 1981-12-03 |
| FORD  | 1981-12-03 |
+-------+------------+
2 rows in set (0.01 sec)
```

26. 9.Display the employee information with maximum salary.

27.

```
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)
```

28. Display the employee names in upper and lower case.

29.

```
mysql> SELECT UPPER(ENAME) AS UpperCaseName, LOWER(ENAME) AS LowerCaseName
    -> FROM EMP;
+---------------+---------------+
| UpperCaseName | LowerCaseName |
+---------------+---------------+
| 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 (0.01 sec)
```

30. find the date of 3 days later from hiredate.

31.

```
mysql> SELECT ENAME, HIREDATE, HIREDATE + INTERVAL '3' DAY AS DateAfter3Days
    -> FROM EMP;
+--------+------------+----------------+
| ENAME  | HIREDATE   | DateAfter3Days |
+--------+------------+----------------+
| 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 (0.01 sec)
```