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SAP ID- 500119063

Lab – 6

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

EMP TABLE

EMPNO DEPTNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	
-----	-----	-----	-----	-----	-----	-----	
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

create table emp (empno int(4), ename varchar(10), job varchar(9), mgr int(4), hiredate date, sal decimal(7,2), comm decimal(7,2), deptno int(2));

insert into emp values (7369, 'SMITH', 'CLERK', 7902, '1980-12-17', 500, 800, 20); insert into emp values (7499, 'ALLEN', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30); insert into emp values (7521, 'WARD', 'SALESMAN', 7698, '1981-02-22', 1250, 500, 30); insert into emp values (7566, 'JONES', 'MANAGER', 7839, '1981-04-02', 2975, null, 20); insert into emp values (7654, 'MARTIN', 'SALESMAN', 7698, '1981-09-28', 1250, 1400, 30); insert into emp values (7698, 'BLAKE', 'MANAGER', 7839, '1981-05-01', 2850, null, 30); insert into emp values (7782, 'CLARK', 'MANAGER', 7839, '1981-06-09', 2450, null, 10); insert into emp values (7788, 'SCOTT', 'ANALYST', 7566, '1982-12-09', 3000, null, 20); insert into emp values (7839, 'KING', 'PRESIDENT', null, '1981-11-17', 5000, null, 10); insert into emp values (7844, 'TURNER', 'SALESMAN', 7698, '1981-09-08', 1500, 0, 30); insert into emp values (7876, 'ADAMS', 'CLERK', 7788, '1983-01-12', 1100, null, 20); insert into emp values (7900, 'JAMES', 'CLERK', 7698, '1981-12-03', 950, null, 30); insert into emp values (7902, 'FORD', 'ANALYST', 7566, '1981-12-03', 3000, null, 20); insert into emp values (7934, 'MILLER', 'CLERK', 7782, '1982-01-23', 1300, null, 10);

create table dept (deptno int(2), dname varchar(14), loc varchar(13));

insert into dept values (10, 'ACCOUNTING', 'NEW YORK'); insert into dept values (20, 'RESEARCH', 'DALLAS'); insert into dept values (30, 'SALES', 'CHICAGO'); insert into dept values (40, 'OPERATIONS', 'BOSTON');

```
mysql> select * from emp;
```

empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	500.00	800.00	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	1982-12-09	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	1983-01-12	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

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

```
mysql> select * from dept;
```

deptno	dname	loc
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

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

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

1. Retrieve average salary of all employees.

```
select avg(sal) from emp;
```

```
+-----+
| avg(sal) |
+-----+
| 2051.785714 |
+-----+
1 row in set (0.00 sec)
```

2. Retrieve the number of employees.

```
select count(*) from emp;
```

```

+-----+
| count(*) |
+-----+
|      14 |
+-----+
1 row in set (0.02 sec)

```

3. Retrieve distinct number of employee.

```
select count(distinct ename) from emp;
```

```

mysql> select count(distinct ename) from emp;
+-----+
| count(distinct ename) |
+-----+
|              14 |
+-----+
1 row in set (0.01 sec)

```

4. Retrieve total salary of employee group by job.

```
select sum(sal) from emp group by job;
```

```

mysql> select sum(sal) from emp group by job;
+-----+
| sum(sal) |
+-----+
| 3850.00 |
| 5600.00 |
| 8275.00 |
| 6000.00 |
| 5000.00 |
+-----+
5 rows in set (0.00 sec)

```

5. Display the employee information with maximum salary.

```
select * from emp where sal = (select max(sal) from emp where sal < (select max(sal) from emp));
```

```

+-----+-----+-----+-----+-----+-----+-----+-----+
| 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. Find the highest paid employee in department 10.

```
select ename, sal from emp where deptno = 10 order by sal desc limit 1;
```

```
+-----+-----+
| ename | sal    |
+-----+-----+
| KING  | 5000.00 |
+-----+-----+
1 row in set (0.00 sec)
```

7. List the emps whose sal is equal to the average of max and minimum.

```
select * from emp where sal = (select (max(sal) + min(sal)) / 2 from emp);
```

```
Empty set (0.00 sec)
```

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

```
select * from emp e where hiredate in (select hiredate from emp 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 (0.01 sec)
```

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

```
select upper(ename), lower(ename) from emp;
```

upper(ename)	lower(ename)
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)

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

```
select ename, hiredate, date_add(hiredate, interval 3 day) as hiredate_plus_3_days from emp;
```

ename	hiredate	hiredate_plus_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 (0.01 sec)