

Experiment 3:

Problem 3.1 - Select all employees from the departments “Maintenance” and “development”

```
select emp.*, dept.DNAME from emp
join dept on emp.DEPTNO = dept.DEPTNO
where dept.DNAME = 'development' or dept.DNAME = 'Maintenance';
```

Problem 3.2 - Display all the details of the records whose employee names start with ‘S’.

```
SELECT * from EMP
where ename like 'S%';
```

Problem 3.3 - Display all the details of the records whose employee name does not start with ‘S’.

```
SELECT * from EMP
where ename not like 'S%';
```

Problem 3.4 - Display the rows whose empno ranges from 7500 to 7600.

```
select * from emp
where EMPNO BETWEEN 7500 and 7600;
```

Problem 3.5 - Display the rows whose empno not in range from 7500 to 7600.

```
select * from emp
where EMPNO NOT BETWEEN 7500 and 7600;
```

Problem 3.6 - Calculate the square root of the salary of all employees.

```
select emp.*, sqrt(sal) from emp;
```

Problem 3.7 - Count the total records in the emp table.

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

Problem 3.8 - Calculate the total and average salary amount of the emp table.

```
select sum(sal) as total_sal, avg(sal) as avg_sal from emp;
```

Problem 3.9 - Determine the max and min salary and display as max_salary and min_salary.

```
select max(sal) as max_sal, min(sal) as min_sal from emp;
```

Problem 3.10 - Display total salary spent for employees.

```
select sum(sal) as total_sal from emp;
```

Problem 3.11 - Display total salary spent for each job category.

```
SELECT JOB, SUM(SAL) AS TOTAL_SALARY  
FROM emp  
GROUP BY JOB;
```

Problem 3.12 - Display the month name of date “14-jul-09” in full.

```
SELECT TO_CHAR(TO_DATE('14-JUL-09', 'DD-MON-YY'), 'MONTH') AS FULL_MONTH_NAME  
FROM DUAL;
```

Problem 3.13 - Display the Dob of all employees in the format “dd-mm-yy”.

```
select emp.*, to_char(dob, 'DD-MM-YYYY') from emp;
```

Problem 3.14 - Display the date two months after the Dob of employees.

```
SELECT emp.EMPNO, emp.ENAME, to_char(dob, 'DD-MM-YYYY') as DOB, to_char(ADD_MONTHS(DOB,  
2), 'DD-MM-YYYY') AS DOB_PLUS_TWO_MONTHS  
FROM emp;
```

Problem 3.15 - Display the last date of that month in “05-Oct-09”.

```
SELECT LAST_DAY(TO_DATE('05-Oct-09', 'DD-MON-RR')) AS LAST_DATE_OF_MONTH  
FROM DUAL;
```

Problem 3.16 - Display the rounded date in the year format, month format, day

format in the employees.

```
SELECT  
EMPNO, ENAME, DOB, ROUND(DOB, 'YEAR') AS ROUNDED_TO_YEAR, ROUND(DOB, 'MONTH') AS  
ROUNDED_TO_MONTH, ROUND(DOB, 'DAY') AS ROUNDED_TO_DAY  
FROM emp;
```

Problem 3.17 - List all employee names , salary and 15% rise in salary.

```
SELECT ENAME, SAL, SAL * 1.15 AS NEW_SALARY  
FROM emp;
```

Problem 3.18 - List all employee names which start with either B or C.

```
SELECT ENAME  
FROM emp  
WHERE ENAME LIKE 'B%' OR ENAME LIKE 'C%';
```

Problem 3.19-Display the employee names who got less than the average salary of all employees.

```
SELECT empno, ENAME, sal  
FROM emp  
WHERE SAL < (SELECT AVG(SAL) FROM emp);
```

Problem 3.20 - Display lowest paid employee details under each manager.

```
SELECT MGR, ENAME, SAL  
FROM emp  
WHERE (MGR, SAL) IN (  
    SELECT MGR, MIN(SAL)  
    FROM emp  
    GROUP BY MGR  
);
```

Problem 3.21 - Display number of employees working in each department and their department name.

```
SELECT D.DEPTNO, D.DNAME AS DEPARTMENT_NAME, COUNT(E.EMPNO) AS NUM_EMPLOYEES
```

```
FROM DEPT D
LEFT JOIN EMP E ON D.DEPTNO = E.DEPTNO
GROUP BY D.DEPTNO, D.DNAME;
```

Problem 3.22 - Display the employee names whose name contains up to 5 characters.

```
SELECT ENAME
FROM emp
WHERE LENGTH(ENAME) <= 5;
```

Problem 3.23 - List all employee names and their manager whose manager is 77499 or 7566 Or 7611.

```
SELECT ENAME, MGR
FROM emp
WHERE MGR IN (77499, 7566, 7611);
```

Problem 3.24 - Find how many job titles are available in employee table.

```
SELECT COUNT(DISTINCT JOB) AS NUM_JOBS
FROM emp;
```

Problem 3.25 - What is the difference between maximum and minimum salaries of employees in the organization?

```
SELECT MAX(SAL) - MIN(SAL) AS SALARY_DIFFERENCE
FROM emp;
```

Problem 3.26 - Find no.of depts in employee table.

```
SELECT COUNT(DISTINCT DEPTNO) AS NUM_DEPARTMENTS
FROM emp;
```

Problem 3.27 - Display the names and dob of all employees who were born in February.

```

SELECT ENAME, DOB
FROM emp
WHERE TO_CHAR(DOB, 'MM') = '02';

```

Problem 3.28 - List out the employee names who will celebrate their birth days during current month.

```

SELECT ENAME, DOB
FROM emp
WHERE TO_CHAR(DOB, 'MM') = TO_CHAR(SYSDATE, 'MM');

```

Problem 3.29 - List out the employee names whose names starts with s and ends with h.

```

SELECT ENAME
FROM emp
WHERE ENAME LIKE 'S%H';

```

Problem 3.30 - List out the employee names whose salary is greater than 5000.

```

SELECT ENAME
FROM emp
WHERE SAL > 5000;

```

	EMPNO	ENAME	JOB	MGR	DEPTNO	SAL	COMMISSION	DOB
1	7590	Aman	MANAGER	(null)	10	8825	1000	1/7/1990, 12:00:00
2	7591	Baman	CLERK	7590	10	8826	(null)	2/8/1991, 12:00:00
3	7592	Chaman	SUPERVISOR	7590	40	8827	(null)	(null)
4	7593	Daman	CLERK	7594	50	8828	(null)	(null)
5	7594	Raman	MANAGER	(null)	20	8829	1000	(null)
6	7595	Taman	CLERK	7599	30	8830	(null)	(null)
7	7596	Haman	SUPERVISOR	7599	50	8831	(null)	(null)
8	7597	Kaman	SUPERVISOR	7594	20	8832	(null)	(null)
9	7598	Saman	CLERK	7590	40	8833	(null)	(null)
10	7599	Zaman	MANAGER	(null)	30	8834	1000	(null)
11	7602	Paman	MANAGER	(null)	50	9500	1000	(null)
12	7601	Faman	SUPERVISOR	(null)	40	8500	(null)	(null)

	DEPTNO	DNAME	LOC
1	40	Maintenance	Bangalore
2	50	development	Chennai
3	10	HR	PUNE
4	20	FINANCE	DEL PUNE
5	30	SALES	MUMBAI

```
INSERT INTO DEPT (DEPTNO, DNAME) VALUES (10, 'Maintenance');
```

```
INSERT INTO DEPT (DEPTNO, DNAME) VALUES (20, 'Development');
```

```
INSERT INTO DEPT (DEPTNO, DNAME) VALUES (30, 'HR');
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, DEPTNO, SAL, COMMISSION, DOB)
VALUES (7499, 'Sam', 'MANAGER', 7600, 10, 7000, NULL, TO_DATE('1990-02-15', 'YYYY-MM-DD'));
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, DEPTNO, SAL, COMMISSION, DOB)
VALUES (7501, 'Bob', 'CLERK', 7499, 10, 3000, NULL, TO_DATE('1991-05-20', 'YYYY-MM-DD'));
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, DEPTNO, SAL, COMMISSION, DOB)
VALUES (7503, 'Cathy', 'SUPERVISOR', 7501, 20, 4500, NULL, TO_DATE('1992-01-12', 'YYYY-MM-DD'));
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, DEPTNO, SAL, COMMISSION, DOB)
VALUES (7504, 'Sally', 'CLERK', 7503, 20, 3500, NULL, TO_DATE('1993-07-30', 'YYYY-MM-DD'));
```

```
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, DEPTNO, SAL, COMMISSION, DOB)
VALUES (7601, 'Sarah', 'MANAGER', 7503, 30, 6500, 200, TO_DATE('1989-01-19', 'YYYY-MM-DD'));
```