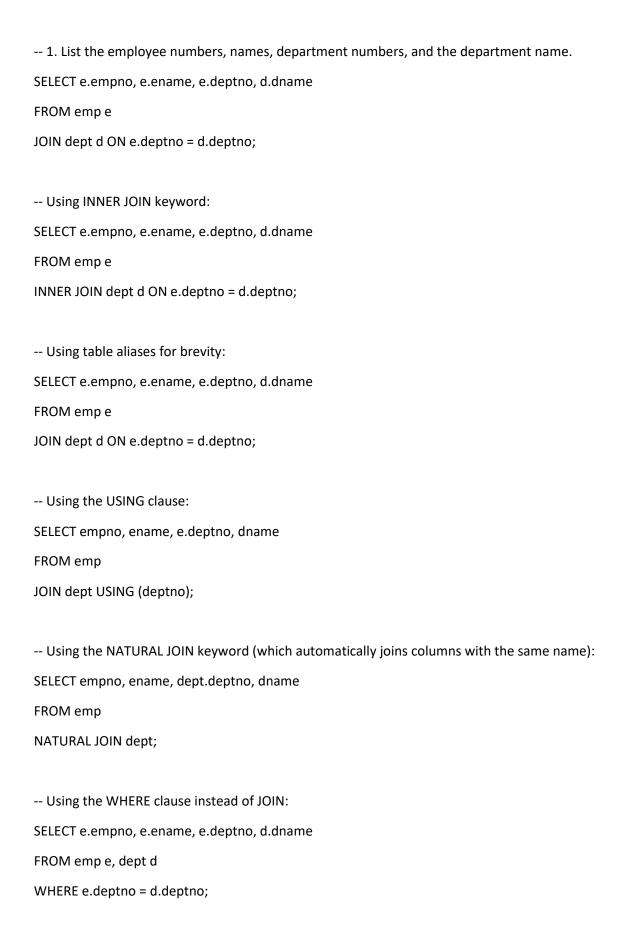
1. List t	he employee numbers, names, department numbers and the department name.
2. even if	Display the list of employees working in each department. Display the department information no employee belongs to that department.
3.	List the employee names along with their manager's name.
4.	List all employees who joined the company before their managers.
5.	Display the different designations in department no 20 and 30.
6.	List the jobs common to department 20 and 30.
7.	List the jobs unique to department 20.
8.	List the employees belonging to the department of MILLER.
9.	List the job with highest average salary.
10. Li:	st names of the employee who earns lowest salary in each job
11. Lis	t names of the employee who earns lowest salary in each department
12.	List employee details who earn salary greater than the average salary for their department.
13. before	List employee details whose salary is greater than average salary of all the employees joined 1st April 1981.



-- 2. Display the list of employees working in each department. Display the department information even if no employee belongs to that department.

SELECT d.dname, e.empno, e.ename

FROM dept d

LEFT JOIN emp e ON d.deptno = e.deptno

ORDER BY d.dname;

## using the "(+)" syntax for the left join:

SELECT d.dname, e.empno, e.ename

FROM dept d, emp e

WHERE d.deptno = e.deptno(+)

ORDER BY d.dname;

-- 3. List the employee names along with their manager's name.

SELECT e.ename AS employee\_name, m.ename AS manager\_name

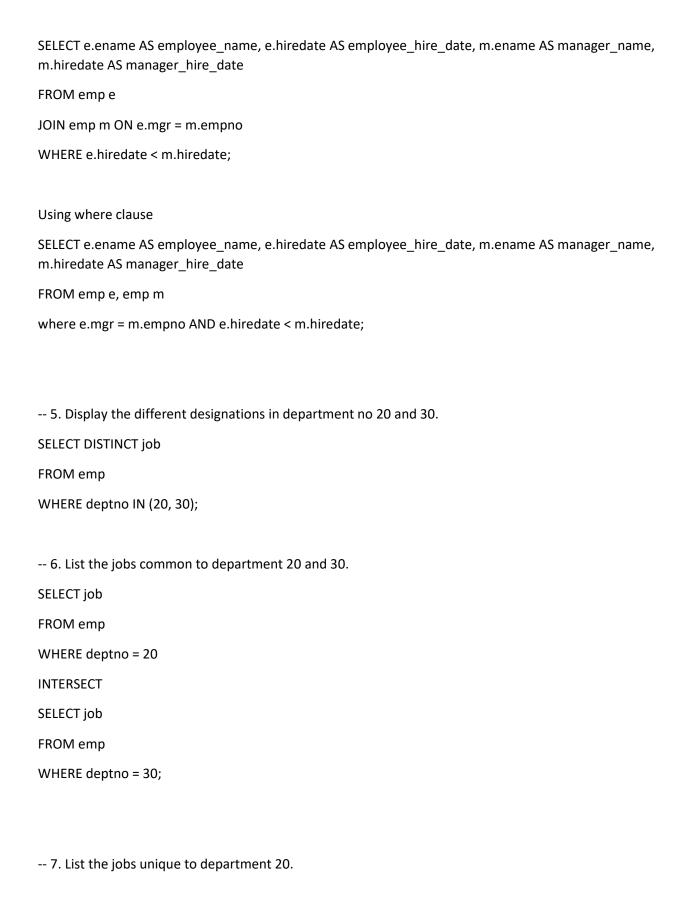
FROM emp e

LEFT JOIN emp m ON e.mgr = m.empno;

uses implicit INNER JOIN through the comma [,] notation. This means that only employees with a corresponding manager will be listed.

select m.ename Manager, e.ename Employee from emp m, emp e where e.mgr=m.empno;

-- 4. List all employees who joined the company before their managers.



```
SELECT DISTINCT job
FROM emp
WHERE deptno = 20
AND job NOT IN (SELECT job FROM emp WHERE deptno != 20);
-- 8. List the employees belonging to the department of MILLER.
SELECT empno, ename
FROM emp
WHERE deptno = (SELECT deptno FROM emp WHERE ename = 'MILLER');
-- 9. List the job with the highest average salary.
SELECT job
FROM emp
GROUP BY job
HAVING AVG(sal) = (
  SELECT MAX(avg_sal)
  FROM (SELECT AVG(sal) AS avg_sal FROM emp GROUP BY job)
);
-- 10. List names of the employee who earns the lowest salary in each job.
SELECT job, ename
FROM emp
WHERE (job, sal) IN (SELECT job, MIN(sal) FROM emp GROUP BY job);
-- 11. List names of the employee who earns the lowest salary in each department.
SELECT deptno, ename
FROM emp
WHERE (deptno, sal) IN (SELECT deptno, MIN(sal) FROM emp GROUP BY deptno);
```

-- 12. List employee details who earn a salary greater than the average salary for their department.

SELECT \*

FROM emp e

WHERE e.sal > (

SELECT AVG(sal)

FROM emp

WHERE deptno = e.deptno
);

-- 13. List employee details whose salary is greater than average salary of all the employees joined before 1st April 1981.

SELECT \*

FROM emp

WHERE sal > (SELECT AVG(sal) FROM emp WHERE hiredate < TO\_DATE('1981-04-01', 'YYYY-MM-DD'));