SELECT D.DNAME, E.ENAME

FROM DEPT D

JOIN EMP E ON D.DEPTNO = E.DEPTNO

WHERE E.SAL = (

SELECT MAX(SAL)

FROM EMP

WHERE DEPTNO = D.DEPTNO

);

SELECT \*

FROM EMP

WHERE SAL > (

SELECT AVG(SAL)

FROM EMP

WHERE DEPTNO = EMP.DEPTNO

);

SELECT DEPTNO, AVG(SALGRADE.GRADE) AS AVG\_GRADE

FROM EMP

JOIN SALGRADE ON EMP.SAL BETWEEN SALGRADE.LOSAL AND SALGRADE.HISAL

GROUP BY DEPTNO;

SELECT EMPNO, ENAME, SAL

FROM EMP E1

WHERE NOT EXISTS (

SELECT 1

FROM EMP E2

WHERE E2.SAL > E1.SAL

);

SELECT D.\*

FROM DEPT D

JOIN (

SELECT DEPTNO, AVG(SAL) AS AVG\_SAL

FROM EMP

GROUP BY DEPTNO

ORDER BY AVG\_SAL DESC

LIMIT 1

) AS T ON D.DEPTNO = T.DEPTNO;

SELECT DEPTNO, AVG(SALGRADE.GRADE) AS AVG\_GRADE

FROM EMP

JOIN SALGRADE ON EMP.SAL BETWEEN SALGRADE.LOSAL AND SALGRADE.HISAL

GROUP BY DEPTNO

ORDER BY AVG\_GRADE ASC

LIMIT 1;

SELECT DISTINCT E.ENAME

FROM EMP E

WHERE E.SAL > (

SELECT MAX(SAL)

FROM EMP

WHERE EMPNO NOT IN (SELECT DISTINCT MGR FROM EMP WHERE MGR IS NOT NULL)

);

SELECT ENAME, SAL

FROM EMP

ORDER BY SAL DESC

LIMIT 5;

SELECT ENAME, SAL

FROM EMP

ORDER BY SAL DESC

LIMIT 5, 5;

SELECT ENAME, HIREDATE

FROM EMP

ORDER BY HIREDATE DESC

LIMIT 5;

SELECT GRADE, COUNT(\*) AS NUM\_EMPLOYEES

FROM EMP

JOIN SALGRADE ON EMP.SAL BETWEEN SALGRADE.LOSAL AND SALGRADE.HISAL

GROUP BY GRADE;

SELECT E.ENAME AS EMPLOYEE\_NAME, M.ENAME AS MANAGER\_NAME

FROM EMP E

LEFT JOIN EMP M ON E.MGR = M.EMPNO;

SELECT E1.EMPNO, E1.ENAME, D.DNAME

FROM EMP E1

JOIN DEPT D ON E1.DEPTNO = D.DEPTNO

WHERE E1.HIREDATE < (

SELECT HIREDATE

FROM EMP E2

WHERE E2.EMPNO = E1.MGR

);

SELECT D.DNAME, E.EMPNO, E.ENAME

FROM DEPT D

LEFT JOIN EMP E ON D.DEPTNO = E.DEPTNO

ORDER BY D.DNAME;

SELECT D.DNAME, COUNT(\*) AS NUM\_EMPLOYEES

FROM DEPT D

JOIN EMP E ON D.DEPTNO = E.DEPTNO

GROUP BY D.DEPTNO

HAVING COUNT(\*) >= 5;

SELECT \*

FROM EMP

WHERE SAL > (

SELECT SAL

FROM EMP

WHERE ENAME = 'SMITH'

);

SELECT E.\*, D.DNAME, D.COUNT\_EMPLOYEES

FROM EMP E

JOIN (

SELECT DEPTNO, COUNT(\*) AS COUNT\_EMPLOYEES

FROM EMP

GROUP BY DEPTNO

) D ON E.DEPTNO = D.DEPTNO

WHERE E.JOB = 'CLERK';

SELECT JOB, COUNT(\*) AS NUM\_EMPLOYEES

FROM EMP

WHERE SAL >= 1500

GROUP BY JOB;