1. **Show those departments that do not have any employee.**

```
SELECT      ename, job, dname
FROMemp right outer join dept
on      emp.deptno = dept.deptno
minus
SELECT      ename, job, dname
FROMemp  join dept
on      emp.deptno = dept.deptno
```

ENAME	JOB	DNAME
-	-	OPERATIONS

2. **Show those employees that do not have any manager.**

```
SELECT      e.ename "Emplyee", m.ename "manager"
FROMemp e left outer join emp m
on      e.mgr=m.empno
minus
SELECT      e.ename "Emplyee", m.ename "manager"
FROMemp e join emp m
on      e.mgr=m.empno
```

Emplyee	manager
KING	-

3. **Show the manager of each employee.**

```
SELECT      e.ename "Emplyee", m.ename "manager"
FROMemp e join emp m
on      e.mgr=m.empno
```

Emplyee	manager
SCOTT	JONES
FORD	JONES
ALLEN	BLAKE
WARD	BLAKE
MARTIN	BLAKE
TURNER	BLAKE
JAMES	BLAKE
ADAMS	SCOTT
JONES	KING
BLAKE	KING
CLARK	KING
SMITH	FORD

4. Show the employees of Sales department.

```
SELECT    e.ename,d.dname
 FROM     emp e, dept d
WHERE     e.deptno = d.deptno and d.dname='SALES'
```

ENAME	DNAME
ALLEN	SALES
WARD	SALES
MARTIN	SALES
BLAKE	SALES

TURNER	SALES
JAMES	SALES

5. **Your query should show like each employee works in every department.**

```
select ename||' works in '||dname ||' Department'  as "result" from
emp,dept
order by ename
```

result
ADAMS works in RESEARCH Department
ADAMS works in OPERATIONS Department
ADAMS works in ACCOUNTING Department
ADAMS works in SALES Department
ALLEN works in OPERATIONS Department

6. **Get the total salary of Sales Department.**

```
SELECT        emp.deptno ,sum(sal)
FROMemp , dept
WHERE         emp.deptno = dept.deptno and dept.dname='SALES'
group by emp.deptno
```

DEPTNO	MAX(SAL)
30	2850
10	5000

20	3000

7. **Get the no. of employees of Sales Department.**

```
SELECT    emp.deptno ,count(*) FROM    emp , dept
WHERE     emp.deptno = dept.deptno and dept.dname='SALES'
group by emp.deptno
```

DEPTNO	COUNT(*)
30	6

8. **Get the lowest salaries of all the departments from dept table.**

```
SELECT    emp.deptno ,min(sal)
FROMemp , dept
WHERE     emp.deptno = dept.deptno
group by emp.deptno
```

DEPTNO	MIN(SAL)
30	950
10	2450
20	800

9. **Get the name of Clark's manager.**

```
SELECT    e.ename as "Emplyeee",m.ename as " manager"
FROMemp e, emp m
WHERE     e.mgr=m.empno and e.ename='CLARK'
```

Emplyeee	manager
CLARK	KING

10. Show the output like " Smith is the Clerk of Sales Department with salary 1600 from NewYork."

```
SELECT        e.ename ||' is the '||e.job ||' of ' || d.dname ||
' Department with salary '|| sal ||  ' from ' || d.loc as "output"
FROMemp e join dept d
on      e.deptno=d.deptno
```

output
SMITH is the CLERK of RESEARCH Department with salary 800 from DALLAS
ALLEN is the SALESMAN of SALES Department with salary 1600 from CHICAGO
WARD is the SALESMAN of SALES Department with salary 1250 from CHICAGO
JONES is the MANAGER of RESEARCH Department with salary 2975 from DALLAS
MARTIN is the SALESMAN of SALES Department with salary 1250 from CHICAGO
BLAKE is the MANAGER of SALES Department with salary 2850 from CHICAGO
CLARK is the MANAGER of ACCOUNTING Department with salary 2450 from NEW YORK
SCOTT is the ANALYST of RESEARCH Department with salary 3000 from DALLAS
KING is the PRESIDENT of ACCOUNTING Department with salary 5000 from NEW YORK
TURNER is the SALESMAN of SALES Department with salary 1500 from CHICAGO
ADAMS is the CLERK of RESEARCH Department with salary 1100 from DALLAS
JAMES is the CLERK of SALES Department with salary 950 from CHICAGO
FORD is the ANALYST of RESEARCH Department with salary 3000 from DALLAS

11. **Dsiplay ename, job, deptno, dname from emp and dept table using left outer join**

```
SELECT      e.ename,e.job, d.deptno, d.dname,d.loc
FROMemp e left outer join dept d
on      e.deptno = d.deptno
```

ENAME	JOB	DEPTNO	DNAME	LOC
CLARK	MANAGER	10	ACCOUNTING	NEW YORK
KING	PRESIDENT	10	ACCOUNTING	NEW YORK
SMITH	CLERK	20	RESEARCH	DALLAS
JONES	MANAGER	20	RESEARCH	DALLAS
SCOTT	ANALYST	20	RESEARCH	DALLAS
ADAMS	CLERK	20	RESEARCH	DALLAS
FORD	ANALYST	20	RESEARCH	DALLAS
ALLEN	SALESMAN	30	SALES	CHICAGO
WARD	SALESMAN	30	SALES	CHICAGO
MARTIN	SALESMAN	30	SALES	CHICAGO
BLAKE	MANAGER	30	SALES	CHICAGO
TURNER	SALESMAN	30	SALES	CHICAGO
JAMES	CLERK	30	SALES	CHICAGO

12.**Dsiplay ename, job, deptno, dname from emp and dept table using rightouter join.**

```
SELECT      e.ename,e.job, d.deptno, d.dname,d.loc
FROMemp e right outer join dept d
on      e.deptno = d.deptno
```

ENAME	JOB	DEPTNO	DNAME	LOC
SMITH	CLERK	20	RESEARCH	DALLAS
ALLEN	SALESMAN	30	SALES	CHICAGO
WARD	SALESMAN	30	SALES	CHICAGO
JONES	MANAGER	20	RESEARCH	DALLAS
MARTIN	SALESMAN	30	SALES	CHICAGO
BLAKE	MANAGER	30	SALES	CHICAGO
CLARK	MANAGER	10	ACCOUNTING	NEW YORK
SCOTT	ANALYST	20	RESEARCH	DALLAS
KING	PRESIDENT	10	ACCOUNTING	NEW YORK
TURNER	SALESMAN	30	SALES	CHICAGO
ADAMS	CLERK	20	RESEARCH	DALLAS
JAMES	CLERK	30	SALES	CHICAGO
FORD	ANALYST	20	RESEARCH	DALLAS
-	-	40	OPERATIONS	BOSTON

13. **Create a query that will display the total number of employees and, the number of employees hired in 1981, 1982, and 1987. Create appropriate column headings.**

```
select count(ename) "total emp",
  count(case when to_char(hiredate,'yyyy') = '1985' then hiredate end) as  "emp hired in 1985",
  count(case when to_char(hiredate,'yyyy') = '1982' then hiredate end) "emp hired in 1982",
  count(case when to_char(hiredate,'yyyy') = '1983' then hiredate end) "emp hired in 1983"
from emp
```

total emp	emp hired in 1985	emp hired in 1982	emp hired in 1983
13	0	1	1

14.Create a query to display the job, the salary for that job based on the department number and the total salary for that job for all the departments.

JOB	dept10	dept20	dept30	Total
CLERK	-	1900	950	2850
SALESMAN	-	-	5600	5600
ANALYST	-	6000	-	6000
MANAGER	2450	2975	2850	8275
PRESIDENT	5000	-	-	5000

5

15. **Display all the employees names and hire dates along with their managers name and hire date for all the employees who were hired before their managers.**

```
SELECT  e.ename, e.hiredate,m.ename ,m.hiredate
FROM    emp e
join dept d on  e.deptno = d.deptno
join  emp m on e.mgr = m.empno
where e.hiredate < m.hiredate
```

ENAME	hiredate	MGR name	hiredate
ALLEN	20 FEB, 1981	BLAKE	1 MAY, 1981
WARD	22 FEB, 1981	BLAKE	1 MAY, 1981
JONES	2 APR, 1981	KING	17 NOV, 1981

16. Write a query to display the department name, location name, number of employees and the average salary for all the employees in that department. Round the salary to two decimal points.

select dname ,loc ,count(*) "Num of emp",round(avg(sal),2) "Avg sal" from emp jo in dept

on emp.deptno=dept.deptno

group by dname,loc

DNAME	LOC	Num of emp	Avg sal
RESEARCH	DALLAS	5	2175
ACCOUNTING	NEW YORK	2	3725
SALES	CHICAGO	6	1566.67

17**. Write a query to display the name ,deptno ,sal for those employees who gets more salary than the employee whose empno is 7521.**

select ename,deptno,sal from emp

where sal>(select sal from emp where empno=7499)

ENAME	DEPTNO	SAL
JONES	20	2975
BLAKE	30	2850
CLARK	10	2450
SCOTT	20	3000
KING	10	5000
FORD	20	3000

18. Find the manager of Smith.

```
SELECT      e.ename as "Emplyeee",m.ename as " manager"
FROMemp e, emp m
WHERE       e.mgr=m.empno and e.ename='SMITH'
```

Emplyeee	manager
SMITH	FORD

19. Find the job which has the highest average salary

```
SELECT  job from emp
where sal=(select max(avg(sal)) from emp group by job)
```

JOB
PRESIDENT

20. Find all employees who have the same job as JONES.

SELECT * from emp

where job=(select job from emp where ename='JONES') and ename!='JONES'

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10