

1) WRITE A QUERY TO DISPLAY NAME OF THE EMPLOYEE

```
SQL> SELECT ENAME  
2 FROM EMP;
```

ENAME

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

14 rows selected.

2)WAQTD ENAME AND SALARY OF ALL EMPLOYEE

```
SQL> SELECT ENAME,SAL  
2 FROM EMP;
```

ENAME	SAL
-------	-----

SMITH	800
ALLEN	1600
WARD	1250
JONES	2975
MARTIN	1250
BLAKE	2850
CLARK	2450
SCOTT	3000
KING	5000
TURNER	1500

ADAMS	1100
JAMES	950
FORD	3000
MILLER	1300

14 rows selected.

3)WAQTD DEPARTMENT NAME AND ITS LOCATION FOR ALL THE DEPARTMENT

```

1 SELECT DNAME,LOC
2* FROM DEPT
SQL> /

```

DNAME	LOC
ACCOUNTING	NEW YORK
RESEARCH	DALLAS
SALES	CHICAGO
OPERATIONS	BOSTON

```

SQL> ED
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```

4)WAQTD NAME,SALARY,COMMISION , AND DATE OF JOINING OF AN EMPLOYEE

```

1 SELECT ENAME,SAL,COMM, HIREDATE
2* FROM EMP
SQL> /

```

ENAME	SAL	COMM	HIREDATE
SMITH	800		17-DEC-80
ALLEN	1600	300	20-FEB-81
WARD	1250	500	22-FEB-81
JONES	2975		02-APR-81
MARTIN	1250	1400	28-SEP-81
BLAKE	2850		01-MAY-81
CLARK	2450		09-JUN-81
SCOTT	3000		19-APR-87
KING	5000		17-NOV-81
TURNER	1500		08-SEP-81
ADAMS	1100		23-MAY-87
JAMES	950		03-DEC-81

FORD	3000	03-DEC-81
MILLER	1300	23-JAN-82

14 rows selected.

5)WAQTD EMPLOYEE NAME,HIS DESIGNATION AND HIS MANAGERS EMPLOYEE
NUMBER

SQL> ED

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```
1 SELECT ENAME,JOB,MGR
2* FROM EMP
SQL> /
```

ENAME	JOB	MGR
SMITH	CLERK	7902
ALLEN	SALESMAN	7698
WARD	SALESMAN	7698
JONES	MANAGER	7839
MARTIN	SALESMAN	7698
BLAKE	MANAGER	7839
CLARK	MANAGER	7839
SCOTT	ANALYST	7566
KING	PRESIDENT	
TURNER	SALESMAN	7698
ADAMS	CLERK	7788
JAMES	CLERK	7698
FORD	ANALYST	7566
MILLER	CLERK	7782

14 rows selected.

SQL> ED

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5)WAQTD ENAME AND HIS DEPTNO

```
1 SELECT ENAME,DEPTNO
2* FROM EMP
SQL> /
```

ENAME	DEPTNO
-------	--------

```

-----
SMITH      20
ALLEN      30
WARD       30
JONES      20
MARTIN     30
BLAKE      30
CLARK      10
SCOTT      20
KING       10
TURNER     30
ADAMS      20
JAMES      30
FORD       20
MILLER     10

```

14 rows selected.

7) WAQTD ALL THE DETAILS OF AN EMPLOYEE OF A COMPANY

1 SELECT *

2* FROM EMP

SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	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	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	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

14 rows selected.

8) WAQTD ALL THE DETAILS OF DEPARTMENT PRESENT IN THE COMPANY

SQL> ED

Wrote file afiedt.buf

```
1 SELECT *
2* FROM DEPT
SQL> /
```

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

SQL> ED

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9) WAQTD ENAME,HIS EMPLOYEE NUMBER ,HIS SALARY AND ALSO HIS ANNUAL SALARY FOR EVERY EMP

SQL> ED

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```
1 SELECT ENAME,EMPNO,SAL,SAL*12 "ANUAL SAL"
2* FROM EMP
SQL> /
```

ENAME	EMPNO	SAL	ANUAL SAL
SMITH	7369	800	9600
ALLEN	7499	1600	19200
WARD	7521	1250	15000
JONES	7566	2975	35700
MARTIN	7654	1250	15000
BLAKE	7698	2850	34200
CLARK	7782	2450	29400
SCOTT	7788	3000	36000
KING	7839	5000	60000
TURNER	7844	1500	18000
ADAMS	7876	1100	13200
JAMES	7900	950	11400
FORD	7902	3000	36000

```
MILLER      7934      1300      15600
```

14 rows selected.

```
SQL> ED
```

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10) WAQTD EMPLOYEE NAME ,HIS EMPLOYEE NO. AND SALARY WITH THE HIKE OF 30% FOR EVERY EMP

```
1 SELECT ENAME,EMPNO,SAL,SAL*1.3
2* FROM EMP
SQL> /
```

ENAME	EMPNO	SAL	SAL*1.3
SMITH	7369	800	1040
ALLEN	7499	1600	2080
WARD	7521	1250	1625
JONES	7566	2975	3867.5
MARTIN	7654	1250	1625
BLAKE	7698	2850	3705
CLARK	7782	2450	3185
SCOTT	7788	3000	3900
KING	7839	5000	6500
TURNER	7844	1500	1950
ADAMS	7876	1100	1430
JAMES	7900	950	1235
FORD	7902	3000	3900
MILLER	7934	1300	1690

14 rows selected.

11) WAQTD THE DETAILS OF THE EMPLOYEE IN THE FOLLOWING FORMATE

```
SQL> SELECT 'EMPLOYEE ' ||ENAME|| ' EARNS MONTHLY SALARY OF RUPEES '|| SAL
2 FROM EMP;
```

```
'EMPLOYEE'||ENAME||'EARNSMONTHLYSALARYOFRUPEES'||SAL
```

```
-----
EMPLOYEE SMITH EARNS MONTHLY SALARY OF RUPEES 800
EMPLOYEE ALLEN EARNS MONTHLY SALARY OF RUPEES 1600
EMPLOYEE WARD EARNS MONTHLY SALARY OF RUPEES 1250
```

EMPLOYEE JONES EARNS MONTHLY SALARY OF RUPEES 2975
EMPLOYEE MARTIN EARNS MONTHLY SALARY OF RUPEES 1250
EMPLOYEE BLAKE EARNS MONTHLY SALARY OF RUPEES 2850
EMPLOYEE CLARK EARNS MONTHLY SALARY OF RUPEES 2450
EMPLOYEE SCOTT EARNS MONTHLY SALARY OF RUPEES 3000
EMPLOYEE KING EARNS MONTHLY SALARY OF RUPEES 5000
EMPLOYEE TURNER EARNS MONTHLY SALARY OF RUPEES 1500
EMPLOYEE ADAMS EARNS MONTHLY SALARY OF RUPEES 1100
EMPLOYEE JAMES EARNS MONTHLY SALARY OF RUPEES 950
EMPLOYEE FORD EARNS MONTHLY SALARY OF RUPEES 3000
EMPLOYEE MILLER EARNS MONTHLY SALARY OF RUPEES 1300

14 rows selected.

SQL> ED
Wrote file afiedt.buf

```
1 SELECT 'EMPLOYEE ' ||ENAME|| ' EARNS MONTHLY SALARY OF RUPEES '|| SAL ||  
'AND ANNUAL SALARY OF RUPEES '||SAL*12  
2* FROM EMP  
SQL> /
```

```
'EMPLOYEE'||ENAME||'EARNSMONTHLYSALARYOFRUPEES'||SAL||'ANDANNUALSALARYO  
FRUPEES'||SAL*12
```

```
-----  
-----  
EMPLOYEE SMITH EARNS MONTHLY SALARY OF RUPEES 800AND ANNUAL SALARY OF  
RUPEES 9600  
EMPLOYEE ALLEN EARNS MONTHLY SALARY OF RUPEES 1600AND ANNUAL SALARY  
OF RUPEES 19200  
EMPLOYEE WARD EARNS MONTHLY SALARY OF RUPEES 1250AND ANNUAL SALARY  
OF RUPEES 15000  
EMPLOYEE JONES EARNS MONTHLY SALARY OF RUPEES 2975AND ANNUAL SALARY  
OF RUPEES 35700  
EMPLOYEE MARTIN EARNS MONTHLY SALARY OF RUPEES 1250AND ANNUAL SALARY  
OF RUPEES 15000  
EMPLOYEE BLAKE EARNS MONTHLY SALARY OF RUPEES 2850AND ANNUAL SALARY  
OF RUPEES 34200  
EMPLOYEE CLARK EARNS MONTHLY SALARY OF RUPEES 2450AND ANNUAL SALARY  
OF RUPEES 29400  
EMPLOYEE SCOTT EARNS MONTHLY SALARY OF RUPEES 3000AND ANNUAL SALARY  
OF RUPEES 36000  
EMPLOYEE KING EARNS MONTHLY SALARY OF RUPEES 5000AND ANNUAL SALARY OF
```

RUPEES 60000

EMPLOYEE TURNER EARNS MONTHLY SALARY OF RUPEES 1500AND ANNUAL SALARY OF RUPEES 18000

EMPLOYEE ADAMS EARNS MONTHLY SALARY OF RUPEES 1100AND ANNUAL SALARY OF RUPEES 13200

EMPLOYEE JAMES EARNS MONTHLY SALARY OF RUPEES 950AND ANNUAL SALARY OF RUPEES 11400

EMPLOYEE FORD EARNS MONTHLY SALARY OF RUPEES 3000AND ANNUAL SALARY OF RUPEES 36000

EMPLOYEE MILLER EARNS MONTHLY SALARY OF RUPEES 1300AND ANNUAL SALARY OF RUPEES 15600

14 rows selected.

SQL> ED

Wrote file afiedt.buf

```
1 SELECT 'THE DEPARTMENT ' ||DNAME|| ' BEARING DEPTNO '|| DEPTNO || 'AND
ANNUAL LOCATED IN '||LOC
2* FROM DEPT
SQL> /
```

'THEDEPARTMENT' ||DNAME||'BEARINGDEPTNO' ||DEPTNO ||'ANDANNUALLOCATEDIN' ||LO
C

THE DEPARTMENT ACCOUNTING BEARING DEPTNO 10AND ANNUAL LOCATED IN NEW
YORK

THE DEPARTMENT RESEARCH BEARING DEPTNO 20AND ANNUAL LOCATED IN DALLAS
THE DEPARTMENT SALES BEARING DEPTNO 30AND ANNUAL LOCATED IN CHICAGO
THE DEPARTMENT OPERATIONS BEARING DEPTNO 40AND ANNUAL LOCATED IN
BOSTON

12) WAQTD NAME,WITH THE ANUAL SALARY WITH TTHE MONTHLY BONUS OF 200 &
PROVIDE SUITABL ALLIAS NAME

```
SQL> SELECT ENAME,SAL*12,SAL+200 "BONUS"
2 FROM EMP;
```

ENAME	SAL*12	BONUS
SMITH	9600	1000
ALLEN	19200	1800
WARD	15000	1450
JONES	35700	3175

MARTIN	15000	1450
BLAKE	34200	3050
CLARK	29400	2650
SCOTT	36000	3200
KING	60000	5200
TURNER	18000	1700
ADAMS	13200	1300
JAMES	11400	1150
FORD	36000	3200
MILLER	15600	1500

14 rows selected.

13) WAQTD ANUAL SALARY OF AN EMP WITH YRLY BONUS OF 1000

SQL> ED

Wrote file afiedt.buf

```

1 SELECT ENAME,SAL*12+1000 "YR BONUS" ,SAL,SAL*12
2* FROM EMP
SQL> /

```

ENAME	YR BONUS	SAL	SAL*12
SMITH	10600	800	9600
ALLEN	20200	1600	19200
WARD	16000	1250	15000
JONES	36700	2975	35700
MARTIN	16000	1250	15000
BLAKE	35200	2850	34200
CLARK	30400	2450	29400
SCOTT	37000	3000	36000
KING	61000	5000	60000
TURNER	19000	1500	18000
ADAMS	14200	1100	13200
JAMES	12400	950	11400
FORD	37000	3000	36000
MILLER	16600	1300	15600

14 rows selected.

14) WAQTD SALARY OF THE EMP IF SAL IS GREATER THAN 1500

SQL> ED

Wrote file afiedt.buf

```

1 SELECT *
2 FROM EMP
3* WHERE SAL>1500
4 /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7902	FORD	ANALYST	7566	03-DEC-81	3000		20

7 rows selected.

15)

```

SQL> ED
Wrote file afiedt.buf

```

```

1 SELECT *
2 FROM EMP
3* WHERE SAL*12>10000
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
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	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	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

13 rows selected.

15)

SQL> ED

Wrote file afiedt.buf

```
1 SELECT EMP.*,SAL*12
2 FROM EMP
3* WHERE SAL*12>10000
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
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	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	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	

13 rows selected.

16)

SQL> ED

Wrote file afiedt.buf

```
1 SELECT EMP.*
2 FROM EMP
3* WHERE DEPTNO=20
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

17)

SQL> ED

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```

1 SELECT EMP.*
2 FROM EMP
3* WHERE JOB ='MANAGER'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	10	

18)

SQL> ED

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```

1 SELECT EMP.*
2 FROM EMP
3* WHERE HIREDATE >'31-DEC-1995'
SQL> /

```

no rows selected

19)

SQL> ED

Wrote file afiedt.buf

```

1 SELECT EMP.*
2 FROM EMP
3* WHERE COMM>SAL
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30

20)

SQL> ED

Wrote file afiedt.buf

```

1 SELECT EMP.*
2 FROM EMP
3* WHERE JOB='CLERK'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7900	JAMES	CLERK	7698	03-DEC-81	950	30	
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

21)

SQL> ED

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```

1 SELECT *
2 FROMDEPT
3* WHERE LOC ='BOSTON'
SQL> /

```

FROMDEPT

*

ERROR at line 2:

ORA-00923: FROM keyword not found where expected

SQL> ED

Wrote file afiedt.buf

```

1 SELECT *
2 FROM DEPT

```

```
3* WHERE LOC ='BOSTON'
SQL> /
```

DEPTNO	DNAME	LOC
40	OPERATIONS	BOSTON

```
SQL> ED
Wrote file afiedt.buf
```

```
22)
1 SELECT *
2 FROM EMP
3* WHERE DEPTNO = 10 AND SAL>2000
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7839	KING	PRESIDENT		17-NOV-81	5000	10	

```
23)

1 SELECT ENAME ,SAL ,SAL*12+0.25*SAL
2 FROM EMP
3* WHERE JOB = 'CLERK' AND HIREDATE>'16-JUNE-1982'
SQL> /
```

ENAME	SAL	SAL*12+0.25*SAL
ADAMS	1100	13475

```
SQL>
SQL> ED
Wrote file afiedt.buf
```

```
24)

1 SELECT *
2 FROM EMP
3* WHERE SAL*12>15000 AND COMM>SAL
```

SQL> /

no rows selected

SQL> ED

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25)

```
1 SELECT *
2 FROM DEPT
3* WHERE DEPTNO=10 AND DNAME='RESEARCH'
SQL> /
```

no rows selected

26)

```
1 SELECT EMP. *, SAL*0.8
2 FROM EMP
3* WHERE SAL>2500 AND DEPTNO=10
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000	10	4000

SQL> ED

Wrote file afiedt.buf

27)

```
1 SELECT EMP. *
2 FROM EMP
3* WHERE HIREDATE<'31-DEC-1985' AND SAL>2500
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7839	KING	PRESIDENT		17-NOV-81	5000	10	

7902 FORD ANALYST 7566 03-DEC-81 3000 20

SQL> ED

Wrote file afiedt.buf

28)

1 SELECT EMP. *

2 FROM EMP

3* WHERE DEPTNO IN(10,20) AND SAL>2000

SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7902	FORD	ANALYST	7566	03-DEC-81	3000		20

SQL> ED

Wrote file afiedt.buf

29)

1 SELECT EMP. *

2 FROM EMP

3* WHERE (DEPTNO = 10 OR DEPTNO =20) AND SAL>2000

SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7902	FORD	ANALYST	7566	03-DEC-81	3000		20

OR METHOD

1 SELECT EMP. *

2 FROM EMP

3* WHERE (DEPTNO = 10 OR DEPTNO =20) AND SAL>2000
SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	10	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

QUESTION)

SQL> SELECT *
2 FROM EMP
3 WHERE JOB IN ('SALESMAN','ANALYST') AND DEPTNO IN(10,20) AND SAL>2000;

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

SQL> ED
Wrote file afiedt.buf

30)

1 SELECT *
2 FROM EMP
3* WHERE JOB IN ('SALESMAN','ANALYST')
SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

6 rows selected.

SQL> ED
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31)

```
1 SELECT *
2 FROM EMP
3* WHERE JOB IN ('SALESMAN','CLERK') AND SAL>3000 OR SAL!=2500 AND DEPTNO
IN(20,30,40)
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	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	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7900	JAMES	CLERK	7698	03-DEC-81	950	30	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

11 rows selected.

31)

```
1 SELECT *
2 FROM EMP
3* WHERE (JOB ='SALESMAN' AND JOB ='CLERK') AND SAL>3000 OR SAL!=2500 AND
DEPTNO IN(20,30,40)
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	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
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20

11 rows selected.

32)

```
SQL> SELECT ENAME,JOB,COMM,DEPTNO,SAL,0.65*SAL
  2 FROM EMP
  3 WHERE JOB != 'CHECK' AND DEPTNO IN (10,20,30) AND HIREDATE>'31-DEC-1983'
AND COMM<SAL;
```

no rows selected

```
SQL> ED
Wrote file afiedt.buf
```

33)

```
  1 SELECT *
  2 FROM EMP
  3* WHERE SAL BETWEEN 250 AND 500 AND DEPTNO IN(10,20,30)
SQL> /
```

no rows selected

34)

```
  1 SELECT *
  2 FROM EMP
  3* WHERE DEPTNO IN (10,20) AND (COMM BETWEEN 1000 AND 3000) AND (HIREDATE
BETWEEN '1-JAN -1980' AND '31-DEC-1983')
SQL> /
```

no rows selected

35)

```
SQL> SELECT *
```

```

2 FROM EMP
3 WHERE MGR IS NULL;

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000	10	

36)

```

SQL> SELECT *
2 FROM EMP
3 WHERE COMM IS NULL;

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	10	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7876	ADAMS	CLERK	7788	23-MAY-87	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	

10 rows selected.

37)

```

SQL> ED
Wrote file afiedt.buf

```

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE 'A%'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	

38)

SQL> ED

Wrote file afiedt.buf

```
1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE 'A%A'
SQL> /
```

no rows selected

SQL> ED

Wrote file afiedt.buf

```
1 SELECT *
2* FROM EMP
3 /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	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	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	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

14 rows selected.

SQL> ED

Wrote file afiedt.buf

39)

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE 'A%A%'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	

```

SQL> ED
Wrote file afiedt.buf

```

40)

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE 'M%'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

42)

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '%NA%NA%'
SQL> /

```

no rows selected

```

SQL> ED
Wrote file afiedt.buf

```

41)

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '%MAD%'
SQL> /

```

no rows selected

SQL> ED

Wrote file afiedt.buf

43)

```
1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '%R_'
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

44)

```
1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE 'S%'
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	

SQL> ED

Wrote file afiedt.buf

45)

```
1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '_L%'
SQL> /
```

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

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10

SQL> ED
Wrote file afiedt.buf

46)

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '%L%L%'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

SQL> ED
Wrote file afiedt.buf

47)

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '%E_'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7900	JAMES	CLERK	7698	03-DEC-81	950	30	
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

SQL> ED
Wrote file afiedt.buf

48)


```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '__R%'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

```

SQL> ED
Wrote file afiedt.buf

```

49)

```

1 SELECT *
2 FROM EMP
3* WHERE JOB LIKE '_____'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7900	JAMES	CLERK	7698	03-DEC-81	950	30	
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

```

SQL> ED
Wrote file afiedt.buf

```

50)

```

1 SELECT *
2 FROM EMP
3* WHERE SAL BETWEEN 2000 AND 3000
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	

7782 CLARK	MANAGER	7839 09-JUN-81	2450	10
7788 SCOTT	ANALYST	7566 19-APR-87	3000	20
7902 FORD	ANALYST	7566 03-DEC-81	3000	20

51)

SQL> ED

Wrote file afiedt.buf

```

1 SELECT *
2 FROM EMP
3* WHERE COMM IS NULL
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	10	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7876	ADAMS	CLERK	7788	23-MAY-87	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	

10 rows selected.

SQL> ED

Wrote file afiedt.buf

52)

```

1 SELECT *
2 FROM EMP
3* WHERE MGR IS NULL
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000	10	

SQL> ED
Wrote file afiedt.buf

53)

```
1 SELECT *  
2 FROM EMP  
3* WHERE MGR= NULL  
SQL> /
```

no rows selected

```
1 SELECT *  
2 FROM EMP  
3* WHERE MGR= 'NULL'  
SQL> /  
WHERE MGR= 'NULL'  
*
```

ERROR at line 3:
ORA-01722: invalid number

SQL> ED
Wrote file afiedt.buf

```
1 SELECT *  
2 FROM EMP  
3* WHERE MGR=NULL  
SQL> /
```

no rows selected

SQL> ED
Wrote file afiedt.buf

```
1 SELECT *  
2 FROM EMP  
3* WHERE MGR=NULL  
SQL>  
SQL> /
```

no rows selected

SQL> ED

Wrote file afiedt.buf

```
1 SELECT *
2 FROM EMP
3* WHERE COMM = NULL
SQL> /
```

no rows selected

SQL> ED

Wrote file afiedt.buf

```
1 SELECT *
2 FROM EMP
3* WHERE COMM IS NULL
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	10	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7876	ADAMS	CLERK	7788	23-MAY-87	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	

10 rows selected.

53)

```
SQL> SELECT *
2 FROM EMP
3 WHERE JOB='SALESMAN' AND DEPTNO =30;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30

7521	WARD	SALESMAN	7698 22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698 28-SEP-81	1250	1400	30
7844	TURNER	SALESMAN	7698 08-SEP-81	1500	0	30

SQL> ED
Wrote file afiedt.buf

54)

```
1 SELECT *
2 FROM EMP
3* WHERE JOB='SALESMAN' AND DEPTNO =30 AND SAL>5000
SQL> /
```

no rows selected

SQL> ED
Wrote file afiedt.buf

55)

```
1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE 'S%' AND ENAME LIKE 'A%'
SQL> /
```

no rows selected

SQL> ED
Wrote file afiedt.buf

55)

```
1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE 'S%' OR ENAME LIKE 'A%'
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	

7876 ADAMS	CLERK	7788 23-MAY-87	1100	20
------------	-------	----------------	------	----

56)

```
SQL> SELECT *
2 FROM EMP
3 WHERE DEPTNO NOT IN (10,20);
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7900	JAMES	CLERK	7698	03-DEC-81	950	30	

6 rows selected.

57)

```
SQL> SELECT *
2 FROM EMP
3 WHERE ENAME NOT LIKE 'S%';
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
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
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	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	

12 rows selected.

58)

```
SQL> SELECT *
  2 FROM EMP
  3 WHERE MGR IS NOT NULL AND DEPTNO=10;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

59)

```
SQL> SELECT *
  2 FROM EMP
  3 WHERE JOB LIKE '%!_%' ESCAPE '!';
```

no rows selected

```
SQL> ED
Wrote file afiedt.buf
```

60)

```
  1 SELECT *
  2 FROM EMP
  3* WHERE JOB LIKE '%!%' ESCAPE '!'
SQL> /
```

no rows selected

```
SQL> ED
Wrote file afiedt.buf
```

61)

```
  1 SELECT *
  2 FROM EMP
  3* WHERE JOB LIKE '!_%' ESCAPE '!'
SQL> /
```

no rows selected

```
SQL> ED
```

Wrote file afiedt.buf

62)

```
1 SELECT *
2 FROM EMP
3* WHERE JOB LIKE '%!__' ESCAPE '!'
SQL> /
```

no rows selected

SQL> ED
Wrote file afiedt.buf

63)

```
1 SELECT *
2 FROM EMP
3* WHERE SAL>2500 AND DEPTNO=20
4 /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7902	FORD	ANALYST	7566	03-DEC-81	3000		20

SQL> ED
Wrote file afiedt.buf

64)

```
1 SELECT *
2 FROM EMP
3* WHERE JOB='MANAGER' AND MGR IS NULL
SQL> /
```

no rows selected

SQL> ED
Wrote file afiedt.buf

65)


```

1 SELECT *
2 FROM EMP
3* WHERE COMM IS NOT NULL AND JOB NOT IN('MANAGER','ANALYST')
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30

67)

```

1 SELECT *
2 FROM EMP
3* WHERE SAL LIKE '%0'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
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	19-APR-87	3000	20	
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	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	

13 rows selected.

```

SQL> ED
Wrote file afiedt.buf

```

68)

```

1 SELECT *
2 FROM EMP
3* WHERE SAL>1000 AND JOB IN('CLERK','ANALYST')
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

```

SQL> ED
Wrote file afiedt.buf

```

69)

```

1 SELECT *
2 FROM EMP
3* WHERE ENAME LIKE '%E_' AND SAL LIKE '____%'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

```

SQL> ED
Wrote file afiedt.buf

```

70)

```

1 SELECT *
2 FROM EMP
3* WHERE HIREDATE > '31-DEC-1981'
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	

7934 MILLER CLERK 7782 23-JAN-82 1300 10

SQL> ED
Wrote file afiedt.buf

71)

```
1 SELECT *
2 FROM EMP
3* WHERE HIREDATE LIKE '%-FEB-%'
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30

SQL> ED
Wrote file afiedt.buf

72)

```
1 SELECT *
2 FROM EMP
3* WHERE JOB NOT IN('MANAGER','CLERK') AND DEPTNO IN(10,20) AND (SAL
BETWEEN 1000 AND 3000)
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

SQL> ED
Wrote file afiedt.buf

73)

```
1 SELECT *
2 FROM EMP
3* WHERE JOB NOT IN('SALESMAN') AND DEPTNO IN(10,20,30) AND (SAL BETWEEN
1000 AND 2000)
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

74)

```
SQL> SELECT *
2 FROM DEPT
3 WHERE DNAME LIKE '%O%' AND LOC LIKE '%O%';
```

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEW YORK
40	OPERATIONS	BOSTON

```
SQL> ED
Wrote file afiedt.buf
```

75)

```
1 SELECT *
2 FROM EMP
3* WHERE JOB LIKE '%MAN%'
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
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
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30

7 rows selected.

80)

```
SQL> SELECT *
2 FROM EMP
```

```

3 WHERE JOB NOT IN('SALESMAN','ANALYST') AND SAL>1000
4 ORDER BY DEPTNO;

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30

6 rows selected.

```

SQL> ED
Wrote file afiedt.buf
79)

```

```

1 SELECT ENAME , SAL
2 FROM EMP
3* ORDER BY HIREDATE
SQL> /

```

ENAME	SAL
SMITH	800
ALLEN	1600
WARD	1250
JONES	2975
BLAKE	2850
CLARK	2450
TURNER	1500
MARTIN	1250
KING	5000
JAMES	950
FORD	3000
MILLER	1300
SCOTT	3000
ADAMS	1100

14 rows selected.

84)

```
SQL> SELECT MAX(SAL), MIN(SAL), AVG(SAL)
2 FROM EMP
3 WHERE JOB NOT IN('SALESMAN');
```

```
MAX(SAL) MIN(SAL) AVG(SAL)
-----
5000      800    2342.5
```

```
SQL> ED
Wrote file afiedt.buf
```

85)

```
1 SELECT COUNT(*)
2 FROM EMP
3 WHERE DEPTNO IN(10,20)
4* GROUP BY SALARY
```

```
SQL> /
GROUP BY SALARY
*
```

```
ERROR at line 4:
ORA-00904: "SALARY": invalid identifier
```

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT COUNT(*)
2 FROM EMP
3 WHERE DEPTNO IN(10,20)
4* GROUP BY SAL
```

```
SQL> /
```

```
COUNT(*)
-----
1
1
1
1
1
2
1
```

7 rows selected.

SQL> ED

Wrote file afiedt.buf

85)

```
1 SELECT COUNT(*),SAL
2 FROM EMP
3 WHERE DEPTNO IN(10,20)
4* GROUP BY SAL
SQL> /
```

COUNT(*)	SAL
1	2450
1	5000
1	1300
1	2975
1	1100
2	3000
1	800

7 rows selected.

SQL> ED

Wrote file afiedt.buf

86)

```
1 SELECT MAX(SAL),MIN(SAL)
2 FROM EMP
3* WHERE ENAME LIKE 'A%' AND ENAME LIKE 'S%' AND ENAME LIKE 'M%'
SQL> /
```

MAX(SAL)	MIN(SAL)
----------	----------

87)

SQL> SELECT COUNT(ENAME)

```
2 FROM EMP
3 WHERE DEPTNO=30 AND JOB='SALESMAN';
```

```
COUNT(ENAME)
```

```
-----
```

```
4
```

```
SQL> ED
Wrote file afiedt.buf
```

87)

```
1 SELECT COUNT(ENAME),ENAME
2 FROM EMP
3 WHERE DEPTNO=30 AND JOB='SALESMAN'
4* GROUP BY ENAME
SQL> /
```

```
COUNT(ENAME) ENAME
```

```
-----
```

```
1 ALLEN
1 WARD
1 MARTIN
1 TURNER
```

88)

```
SQL> SELECT AVG(SAL)
2 FROM EMP
3 WHERE JOB='MANAGER';
```

```
AVG(SAL)
```

```
-----
```

```
2758.33333
```

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT AVG(SAL),JOB
2 FROM EMP
```



```
3 WHERE JOB='MANAGER'
4* GROUP BY JOB
SQL> /
```

```
AVG(SAL) JOB
-----
2758.33333 MANAGER
```

```
89)
SQL> SELECT COUNT(EMPNO)
2 FROM EMP
3 WHERE DEPTNO IN(10,20)
4 GROUP BY DEPTNO;
```

```
COUNT(EMPNO)
-----
5
3
```

```
SQL> ED
Wrote file afiedt.buf
```

```
90)

1 SELECT COUNT(EMPNO)
2 FROM EMP
3 WHERE DEPTNO IN(10,30)
4* GROUP BY DEPTNO
SQL> /
```

```
COUNT(EMPNO)
-----
6
3
```

```
91)

SQL> SELECT SUM(SAL),AVG(SAL)
2 FROM EMP
3 GROUP BY DEPTNO ;
```

```
SUM(SAL)  AVG(SAL)
```

```

-----
      9400 1566.66667
      10875    2175
      8750 2916.66667

```

QUESTN)

SQL> ED
Wrote file afiedt.buf

```

1 SELECT MAX(SAL),MIN(SAL)
2 FROM EMP
3* GROUP BY JOB
SQL> /

```

```

MAX(SAL)  MIN(SAL)
-----
      1300      800
      1600     1250
      5000     5000
      2975     2450
      3000     3000

```

SQL> ED
Wrote file afiedt.buf

91)

```

1 SELECT MAX(SAL),MIN(SAL),JOB
2 FROM EMP
3* GROUP BY JOB
SQL> /

```

```

MAX(SAL)  MIN(SAL)  JOB
-----
      1300      800 CLERK
      1600     1250 SALESMAN
      5000     5000 PRESIDENT
      2975     2450 MANAGER
      3000     3000 ANALYST

```

92)

```
SQL> SELECT SUM(SAL)
2 FROM EMP
3 WHERE SAL>3000
4 GROUP BY DEPTNO;
```

SUM(SAL)

5000

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT MAX(SAL)
2 FROM EMP
3* GROUP BY JOB
SQL> /
```

MAX(SAL)

1300

1600

5000

2975

3000

```
SQL> ED
Wrote file afiedt.buf
```

93)

```
1 SELECT MAX(SAL)
2 FROM EMP
3* GROUP BY JOB ,DEPTNO
SQL> /
```

MAX(SAL)

2975

5000

1300

1600

3000

2850

2450
950
1100

9 rows selected.

SQL> ED
Wrote file afiedt.buf

93)

```
1 SELECT MAX(SAL),JOB,DEPTNO
2 FROM EMP
3* GROUP BY JOB ,DEPTNO
```

SQL> /

MAX(SAL)	JOB	DEPTNO
2975	MANAGER	20
5000	PRESIDENT	10
1300	CLERK	10
1600	SALESMAN	30
3000	ANALYST	20
2850	MANAGER	30
2450	MANAGER	10
950	CLERK	30
1100	CLERK	20

9 rows selected.

```
SQL> SELECT COUNT(ENMPNO)
2 FROM EMP
3 HAVING COUNT(EMPNO)>4;
SELECT COUNT(ENMPNO)
```

*

ERROR at line 1:
ORA-00904: "ENMPNO": invalid identifier

SQL> ED
Wrote file afiedt.buf

94)

```
1 SELECT COUNT(*)
2 FROM EMP
3* HAVING COUNT(*)>4
SQL> /
```

```
COUNT(*)
-----
      14
```

```
SQL> ED
Wrote file afiedt.buf
```

```
98)
1 SELECT COUNT(ENAME)
2 FROM EMP
3* HAVING COUNT(ENAME)>4
SQL> /
```

```
COUNT(ENAME)
-----
      14
```

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT COUNT(ENAME),DEPTNO
2 FROM EMP
3 GROUP BY DEPTNO
4* HAVING COUNT(ENAME)>4
SQL> /
```

```
COUNT(ENAME)  DEPTNO
-----
      6      30
      5      20
```

```
SQL> ED
Wrote file afiedt.buf
```

95)

```
1 SELECT MAX(SAL),JOB
2 FROM EMP
3 GROUP BY JOB
4* HAVING MAX(SAL)>1500
SQL> /
```

MAX(SAL) JOB

```
-----
1600 SALESMAN
5000 PRESIDENT
2975 MANAGER
3000 ANALYST
```

```
SQL> ED
Wrote file afiedt.buf
```

94)

```
SQL> SELECT COUNT(ENAME),DEPTNO
2 FROM EMP
3 GROUP BY DEPTNO ;
```

```
COUNT(ENAME)  DEPTNO
-----
6           30
5           20
3           10
```

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT COUNT(ENAME),DEPTNO
2 FROM EMP
3 WHERE COUNT(ENAME)>4
4* GROUP BY DEPTNO
5 /
WHERE COUNT(ENAME)>4
*
```

ERROR at line 3:
ORA-00934: group function is not allowed here

SQL> ED
Wrote file afiedt.buf
98)

```
1 SELECT COUNT(ENAME),DEPTNO
2 FROM EMP
3 GROUP BY DEPTNO
4* HAVING COUNT(ENAME)>4
SQL> /
```

COUNT(ENAME)	DEPTNO
6	30
5	20

SQL> ED
Wrote file afiedt.buf
99)

```
1 SELECT MAX(SAL),JOB
2 FROM EMP
3 WHERE ENAME NOT LIKE '%S'
4* GROUP BY JOB
5 /
```

MAX(SAL)	JOB
1300	CLERK
1600	SALESMAN
5000	PRESIDENT
2850	MANAGER
3000	ANALYST

SQL> ED
Wrote file afiedt.buf

```
1 SELECT MAX(SAL),JOB,ENAME
2 FROM EMP
3 WHERE ENAME NOT LIKE '%S'
4* GROUP BY JOB ,ENAME
```

SQL> /

MAX(SAL)	JOB	ENAME
1250	SALESMAN	WARD
2450	MANAGER	CLARK
3000	ANALYST	FORD
1300	CLERK	MILLER
800	CLERK	SMITH
3000	ANALYST	SCOTT
1500	SALESMAN	TURNER
2850	MANAGER	BLAKE
5000	PRESIDENT	KING
1250	SALESMAN	MARTIN
1600	SALESMAN	ALLEN

11 rows selected.

SQL> ED
Wrote file afiedt.buf

100)

SQL> ED
Wrote file afiedt.buf

```
1 SELECT DEPTNO
2 FROM EMP
3 GROUP BY DEPTNO
4* HAVING SUM(SAL)>9000
SQL> /
```

DEPTNO
30
20

SQL> ED
Wrote file afiedt.buf

```
1 SELECT DEPTNO,SUM(SAL)
2 FROM EMP
3 GROUP BY DEPTNO
```



```
4* HAVING SUM(SAL)>9000
SQL> /
```

DEPTNO	SUM(SAL)
30	9400
20	10875

```
SQL>
101)
SELECT MAX(SAL)
FROM EMP
GROUP BY DEPTNO
HAVING MAX(SAL) BETWEEN 5000 AND 10000 AND SUM(SAL)<10000;
```

MAX(SAL)
5000

```
SQL> ED
Wrote file afiedt.buf
```

```
1* SELECT MAX(SAL),DEPTNO FROM EMP GROUP BY DEPTNO HAVING MAX(SAL)
BETWEEN 5000 AND 10000 AND SUM(SAL)<10000
SQL> /
```

MAX(SAL)	DEPTNO
5000	10

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT MAX(SAL),DEPTNO
2 FROM EMP
3 GROUP BY DEPTNO
4* HAVING (MAX(SAL) BETWEEN 5000 AND 10000 )AND SUM(SAL)<10000
SQL> /
```

MAX(SAL)	DEPTNO
5000	10

```
SQL> ED
Wrote file afiedt.buf
```

102)

```
1 SELECT SUM(SAL)
2 FROM EMP
3 WHERE DEPTNO IN (10,20)
4 GROUP BY JOB
5* HAVING SUM(SAL)<10000
SQL> /
```

```
SUM(SAL)
-----
3200
5000
5425
6000
```

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT SUM(SAL) ,JOB,DEPTNO
2 FROM EMP
3 WHERE DEPTNO IN (10,20)
4 GROUP BY JOB ,DEPTNO
5* HAVING SUM(SAL)<10000
6 /
```

```
SUM(SAL) JOB      DEPTNO
-----
2975 MANAGER      20
5000 PRESIDENT    10
1300 CLERK        10
6000 ANALYST      20
2450 MANAGER      10
1900 CLERK        20
```

6 rows selected.

```
SQL> ED
Wrote file afiedt.buf
```

103)

```
1 SELECT AVG(SAL) ,DEPTNO
2 FROM EMP
3 WHERE MGR IS NULL
4* GROUP BY DEPTNO
SQL> /
```

AVG(SAL)	DEPTNO
5000	10

104)

```
1 SELECT
MAX(SAL),MIN(SAL),SUM(SAL),AVG(SAL),MAX(COMM),MIN(COMM),AVG(COMM),DEPTNO
2 FROM EMP
3 WHERE HIREDATE BETWEEN '1-JAN-1980' AND '31-DEC-1985'
4* GROUP BY DEPTNO
SQL> /
```

MAX(SAL)	MIN(SAL)	SUM(SAL)	AVG(SAL)	MAX(COMM)	MIN(COMM)	AVG(COMM)	DEPTNO
2850	950	9400	1566.66667	1400	0	550	30
3000	800	6775	2258.33333			20	
5000	1300	8750	2916.66667			10	

105)

```
1 SELECT MAX(SAL),SUM(SAL)
2 FROM EMP
3 WHERE ENAME NOT LIKE ' _%'
4 GROUP BY SAL,DEPTNO
5* HAVING SUM(SAL)!=5000 AND SUM(SAL)<=9000
SQL> /
```

no rows selected

```
SQL> SPOOL OFF
```

106)

```
SQL> SELECT *
2 FROM EMP
3 WHERE JOB =(SELECT JOB
4           FROM EMP
5           WHERE ENAME LIKE 'MARTIN');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30

107)

```
1 SELECT *
2 FROM EMP
3 WHERE HIREDATE>(SELECT HIREDATE
4           FROM EMP
5*          WHERE ENAME LIKE 'MILLER')
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	

SQL>

106)

no rows selected

```
SQL> SELECT *
2 FROM EMP
3 WHERE JOB =(SELECT JOB
4           FROM EMP
5           WHERE ENAME LIKE 'MARTIN');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30

7654 MARTIN	SALESMAN	7698 28-SEP-81	1250	1400	30
7844 TURNER	SALESMAN	7698 08-SEP-81	1500	0	30

SQL> ED

Wrote file afiedt.buf

107)

```

1  SELECT *
2  FROM EMP
3  WHERE HIREDATE >(SELECT HIREDATE
4      FROM EMP
5*      WHERE ENAME LIKE 'MILLER')

```

SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	

SQL> ED

Wrote file afiedt.buf

108)

```

1  SELECT *
2  FROM EMP
3  WHERE SAL >(SELECT SAL
4      FROM EMP
5      WHERE ENAME LIKE 'ADAMS') AND SAL <(SELECT SAL
6          FROM EMP
7*          WHERE ENAME LIKE 'SCOTT')

```

SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
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
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7934	MILLER	CLERK	7782	23-JAN-82	1300	10	

8 rows selected.

109)

```
SQL> SELECT ENAME ,SAL*12
2 FROM EMP
3 WHERE JOB = 'NETWORK';
```

no rows selected

110)

```
1 SELECT * FROM EMP
2 WHERE DEPTNO IN (SELECT DEPTNO
3 FROM EMP
4* WHERE ENAME IN ('ALLEN','SMITH'))
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	
7876	ADAMS	CLERK	7788	23-MAY-87	1100	20	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7369	SMITH	CLERK	7902	17-DEC-80	800	20	
7900	JAMES	CLERK	7698	03-DEC-81	950	30	
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30

11 rows selected.

111)

```
SQL> SELECT *
2 FROM EMP
3 WHERE SAL > ( SELECT SAL
4 FROM EMP
5 WHERE ENAME='ALLEN');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	10	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

6 rows selected.

112)

```
SQL> SELECT *
2 FROM EMP
3 WHERE JOB =(SELECT JOB
4             FROM EMP
5             WHERE ENAME='SCOTT');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

113)

```
1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO IN ( SELECT DEPTNO
4                   FROM EMP
5                   WHERE JOB='SALESMAN')
SQL> /
```

DNAME

SALES

112)

```
1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO IN(SELECT DEPTNO
4                 FROM EMP
5                 WHERE JOB IN 'ANALYST')
SQL> /
```

```
DNAME
-----
RESEARCH
```

113)

```
1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO IN(SELECT DEPTNO
4                 FROM EMP
5                 WHERE JOB IN 'SALESMAN')
SQL> /
```

```
DNAME
-----
SALES
```

114)

```
1 SELECT ENAME
2 FROM EMP
3 WHERE DEPTNO IN (SELECT DEPTNO
4                 FROM DEPT
5                 WHERE LOC LIKE '%O%')
SQL> /
```

```
ENAME
-----
ALLEN
WARD
MARTIN
BLAKE
CLARK
KING
```


TURNER
JAMES
MILLER

9 rows selected.

115)

```
1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO IN (SELECT DEPTNO
4                   FROM EMP
5                   GROUP BY DEPTNO
6*                  HAVING COUNT(ENAME)>1)
SQL> /
```

DNAME

SALES
RESEARCH
ACCOUNTING

116)

```
1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO IN(SELECT DEPTNO
4                   FROM EMP
5                   GROUP BY DEPTNO
6*                  HAVING COUNT (ENAME)>=4)
SQL> /
```

DNAME

SALES
RESEARCH

questn)

```
1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO IN(SELECT DEPTNO
```

```
4      FROM EMP
5      WHERE JOB='CLERK' AND JOB IN (SELECT JOB
6                                     FROM EMP
7*                                     WHERE JOB LIKE'CLERK'))
SQL> /
```

```
DNAME
-----
SALES
RESEARCH
ACCOUNTING
```

117)

```
1  SELECT DNAME
2  FROM DEPT
3  WHERE DEPTNO IN(SELECT DEPTNO
4                  FROM EMP
5                  GROUP BY DEPTNO,JOB
6                  HAVING COUNT(JOB)>=2 AND JOB IN (SELECT JOB
7                                                    FROM EMP
8*                                                    WHERE JOB='CLERK'))
SQL> /
```

```
DNAME
-----
RESEARCH
```

118)

```
SQL> SELECT DNAME
2  FROM DEPT
3  WHERE DEPTNO=(SELECT DEPTNO
4                FROM EMP
5                WHERE ENAME IS NULL);
```

no rows selected

119)

```
SQL> SELECT ENAME
2  FROM EMP
```

```

3 WHERE JOB=(SELECT JOB
4     FROM EMP
5     WHERE ENAME LIKE'SCOTT');

```

ENAME

SCOTT

FORD

120)

```

SQL> SELECT *
2 FROM EMP
3 WHERE EMPNO =(SELECT MGR
4     FROM EMP
5     WHERE ENAME LIKE 'SCOTT');

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20

121)

```

SQL> SELECT ENAME
2 FROM EMP
3 WHERE JOB=(SELECT JOB
4     FROM EMP
5     WHERE ENAME LIKE'SCOTT') AND SAL>(SELECT SAL
6     FROM EMP
7     WHERE ENAME LIKE'SMITH');

```

ENAME

SCOTT

FORD

SQL> ED

Wrote file afiedt.buf

```

1 SELECT *
2 FROM EMP
3 WHERE JOB=(SELECT JOB

```

```

4      FROM EMP
5      WHERE ENAME LIKE 'SCOTT') AND SAL > (SELECT SAL
6              FROM EMP
7*              WHERE ENAME LIKE 'SMITH')
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

122)

```

SQL> SELECT *
2 FROM EMP
3 WHERE JOB='MANAGER';

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	
7782	CLARK	MANAGER	7839	09-JUN-81	2450	10	

```

SQL> ED
Wrote file afiedt.buf

```

```

1 SELECT *
2 FROM EMP
3 WHERE JOB =(SELECT JOB
4             FROM EMP
5             WHERE ENAME='SCOTT') AND SAL > (SELECT SAL
6             FROM EMP
7*            WHERE ENAME='SMITH')
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	

122)

```
SQL> SELECT *
2 FROM EMP
3 WHERE JOB='MANAGER';
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10

123)

```
SQL> SELECT *
2 FROM EMP
3 WHERE MGR IN ( SELECT EMPNO
4 FROM EMP
5 WHERE ENAME='SCOTT');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20

124)

```
SQL> SELECT *
2 FROM EMP
3 WHERE JOB IN ( SELECT JOB
4 FROM EMP
5 WHERE ENAME IN ('SCOTT','ALLEN'));
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20

6 rows selected.

125)

```
SQL> SELECT MAX(SAL)
2 FROM EMP
```

```

3 WHERE SAL < ( SELECT MAX(SAL)
4           FROM EMP
5           );

```

MAX(SAL)

```

-----
3000

```

OR (USING CO RELATED SUB QUERY)

```

SQL> SELECT E1.SAL
2 FROM EMP E1
3 WHERE (SELECT COUNT(DISTINCT(E2.SAL))
4       FROM EMP E2
5       WHERE E1.SAL < E2.SAL)=1;

```

SAL

```

-----
3000

```

OR (BY ROWNUM)

```

1 SELECT SAL
2 FROM (SELECT ROWNUM SRNO ,SAL
3       FROM (SELECT DISTINCT(SAL)
4       FROM EMP
5       ORDER BY SAL DESC) )
6* WHERE SRNO=2
SQL> /

```

SAL

```

-----
3000

```

126)

```

1 SELECT SAL
2 FROM (SELECT ROWNUM SRNO ,SAL
3       FROM (SELECT DISTINCT(SAL)
4       FROM EMP
5       ORDER BY SAL DESC) )
6* WHERE SRNO=3
SQL> /

```

```
      SAL
-----
      2975
OR
```

```
1 SELECT MAX(SAL)
2 FROM EMP
3 WHERE SAL < ( SELECT MAX(SAL)
4               FROM EMP
5               WHERE SAL< (SELECT MAX(SAL)
6*                      FROM EMP ))
SQL> /
```

```
      MAX(SAL)
-----
      2975
```

OR

```
1 SELECT E1.SAL
2 FROM EMP E1
3 WHERE (SELECT COUNT(DISTINCT(E2.SAL))
4        FROM EMP E2
5* WHERE E1.SAL < E2.SAL)=2
SQL> /
```

```
      SAL
-----
      2975
```

127)

```
SQL> SELECT *
2 FROM EMP
3 WHERE SAL >ANY(SELECT SAL
4                FROM EMP
5                WHERE JOB='MANAGER');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	

128)

```
SQL> SELECT *
2 FROM EMP
3 WHERE SAL > ANY(SELECT SAL
4 FROM EMP
5 WHERE JOB='MANAGER');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000	10	
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	
7566	JONES	MANAGER	7839	02-APR-81	2975	20	
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	

129)

```
1 SELECT EMPNO, JOB, SAL
2 FROM EMP
3 WHERE JOB='ANALYST' AND SAL > ANY(SELECT SAL
4 FROM EMP
5* WHERE JOB='MANAGER')
SQL> /
```

EMPNO	JOB	SAL
7902	ANALYST	3000
7788	ANALYST	3000

130)

```
1 SELECT DNAME, LOC
2 FROM DEPT
3 WHERE DEPTNO IN (SELECT DEPTNO
```



```

4          FROM EMP
5          WHERE MGR IN (SELECT EMPNO
6                        FROM EMP
7*           WHERE ENAME='CLARK'))
SQL> /

```

```

DNAME      LOC
-----
ACCOUNTING  NEW YORK

```

OR

```

SQL> SELECT E1.ENAME , D1.DNAME,D1.LOC
2 FROM EMP E1 , EMP E2 , DEPT D1
3 WHERE E1.MGR= E2.EMPNO AND E1.DEPTNO=D1.DEPTNO AND
E2.DEPTNO=D1.DEPTNO AND E2.ENAME='CLARK';

```

```

ENAME      DNAME      LOC
-----
MILLER     ACCOUNTING  NEW YORK

```

131)

```

SQL> SELECT ENAME,EMPNO,DNAME,LOC,SAL*12 "ANNUAL SAL"
2 FROM EMP ,DEPT
3 WHERE EMP.DEPTNO=DEPT.DEPTNO AND JOB IN ('SALESMAN','CLARK') AND LOC IN
('NEW YORK','CHICAGO','BOSTON');

```

ENAME	EMPNO	DNAME	LOC	ANNUAL SAL
ALLEN	7499	SALES	CHICAGO	19200
WARD	7521	SALES	CHICAGO	15000
MARTIN	7654	SALES	CHICAGO	15000
TURNER	7844	SALES	CHICAGO	18000

132)

```

1 SELECT ENAME ,DEPT.DEPTNO , DNAME, LOC, 1.35*SAL
2 FROM EMP ,DEPT
3 WHERE EMP.DEPTNO=DEPT.DEPTNO AND LOC IN ('NEW YORK','CHICAGO') AND
SAL > ( SELECT SAL
4
FROM EMP

```

5*

WHERE ENAME='ALLEN')

6 /

ENAME	DEPTNO	DNAME	LOC	1.35*SAL
BLAKE	30	SALES	CHICAGO	3847.5
CLARK	10	ACCOUNTING	NEW YORK	3307.5
KING	10	ACCOUNTING	NEW YORK	6750

133)

SQL> SELECT ENAME,DNAME

2 FROM EMP,DEPT

3 WHERE EMP.DEPTNO =DEPT.DEPTNO AND ENAME LIKE '%E_' AND DNAME LIKE '%O%';

ENAME	DNAME
-------	-------

MILLER	ACCOUNTING
--------	------------

134)

SQL> SELECT ENAME , JOB , DNAME, LOC

2 FROM DEPT, EMP

3 WHERE EMP.DEPTNO = DEPT.DEPTNO AND DNAME IN ('ACCOUNTS','SALES') ;

ENAME	JOB	DNAME	LOC
ALLEN	SALESMAN	SALES	CHICAGO
WARD	SALESMAN	SALES	CHICAGO
MARTIN	SALESMAN	SALES	CHICAGO
BLAKE	MANAGER	SALES	CHICAGO
TURNER	SALESMAN	SALES	CHICAGO
JAMES	CLERK	SALES	CHICAGO

6 rows selected.

135)

SQL> SELECT ENAME, DNAME

2 FROM EMP , DEPT

3 WHERE EMP. DEPTNO = DEPT.DEPTNO AND JOB = 'SALESMAN' AND LOC != 'DALLAS';

ENAME	DNAME
ALLEN	SALES
WARD	SALES
MARTIN	SALES
TURNER	SALES

136)

```

SELECT ENAME,DNAME
2 FROM EMP,DEPT
3 WHERE EMP.DEPTNO =DEPT.DEPTNO AND ENAME LIKE '%E_' AND DNAME LIKE
'%O%';

```

ENAME	DNAME
MILLER	ACCOUNTING

137)

```

1 SELECT ENAME, JOB, DNAME , LOC
2 FROM EMP, DEPT
3* WHERE EMP.DEPTNO = DEPT.DEPTNO AND JOB IN ('MANAGER', 'CLERKS') AND
DNAME IN ('SALES' , 'ACCOUNTS')
SQL> /

```

ENAME	JOB	DNAME	LOC
BLAKE	MANAGER	SALES	CHICAGO

139)

```

SQL> SELECT ENAME , LOC
2 FROM EMP , DEPT
3 WHERE EMP. DEPTNO = DEPT. DEPTNO
4 AND LOC = 'DALLAS';

```

ENAME	LOC
SMITH	DALLAS
JONES	DALLAS
SCOTT	DALLAS
ADAMS	DALLAS
FORD	DALLAS

140)

```
1 SELECT E2.ENAME , DNAME , LOC
2 FROM EMP E1, DEPT , EMP E2
3* WHERE E2. DEPTNO = DEPT.DEPTNO AND E1. EMPNO=E2.MGR AND
E1.ENAME='CLARK'
SQL> /
```

ENAME	DNAME	LOC
MILLER	ACCOUNTING	NEW YORK

```
OR
SQL> SELECT *
2 FROM DEPT
3 WHERE DEPTNO IN (SELECT DEPTNO
4                   FROM EMP
5                   WHERE MGR IN ( SELECT EMPNO
6                                 FROM EMP
7                                 WHERE ENAME='CLARK' ));
```

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEW YORK

141)

```
1 SELECT ENAME, DEPT.*
2 FROM EMP, DEPT
3* WHERE EMP.DEPTNO=DEPT.DEPTNO AND JOB='MANAGER'
SQL> /
```

ENAME	DEPTNO	DNAME	LOC
JONES	20	RESEARCH	DALLAS
BLAKE	30	SALES	CHICAGO
CLARK	10	ACCOUNTING	NEW YORK

142)

```
SQL> SELECT ENAME
2 FROM EMP, DEPT
3 WHERE EMP.DEPTNO= DEPT.DEPTNO AND EMP.DEPTNO IS NULL;
```

no rows selected

143)

```
SQL> SELECT DEPTNO
2 FROM EMP
3 WHERE ENAME IS NOT NULL;
```

DEPTNO
20
30
30
20
30
30
10
20
10
30
20
30
20
10

14 rows selected.

OR

```
1 SELECT DISTINCT(DEPTNO),COUNT(DEPTNO)
2 FROM EMP
3 WHERE ENAME IS NOT NULL
4* GROUP BY DEPTNO
SQL> /
```

DEPTNO	COUNT(DEPTNO)
30	6
20	5
10	3

144)

```
1 SELECT DNAME,COUNT(DEPTNO)
2 FROM DEPT
3 WHERE DEPTNO NOT IN (SELECT DEPTNO
```

```

4          FROM EMP
5          WHERE ENAME IS NOT NULL )
6* GROUP BY DNAME
SQL> /

```

```

DNAME      COUNT(DEPTNO)
-----

```

```

OPERATIONS      1

```

145)

```

1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO IN (SELECT DEPTNO
4                  FROM EMP
5                  GROUP BY DEPTNO
6*                 HAVING COUNT(EMPNO)>=1)
SQL> /

```

```

DNAME
-----

```

```

SALES
RESEARCH
ACCOUNTING

```

146)

```

1 SELECT DNAME
2 FROM DEPT
3 WHERE DEPTNO NOT IN (SELECT DEPTNO
4                      FROM EMP
5*                     WHERE EMPNO IS NOT NULL)
SQL> /

```

```

DNAME
-----

```

```

OPERATIONS

```

147)

```

1 SELECT ENAME
2 FROM EMP
3 WHERE MGR IS NULL AND EMPNO IN (SELECT MGR
4                                FROM EMP
5                                GROUP BY MGR

```

```
1 SELECT *
2 FROM EMP
3 WHERE DEPTNO IN(SELECT DEPTNO
```

```

4  FROM EMP
5  WHERE HIREDATE >( SELECT HIREDATE
6                      FROM EMP
7                      WHERE ENAME='SMITH')
8                      GROUP BY DEPTNO
9*                      HAVING COUNT(*)>4 )
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30

6 rows selected.

```

151)
1  SELECT E1.ENAME, E2.ENAME "EMPLOYEE"
2  FROM EMP E1, EMP E2
3* WHERE E1.EMPNO= E2.MGR
SQL> /

```

ENAME	EMPLOYEE
FORD	SMITH
BLAKE	ALLEN
BLAKE	WARD
KING	JONES
BLAKE	MARTIN
KING	BLAKE
KING	CLARK
JONES	SCOTT
BLAKE	TURNER
SCOTT	ADAMS
BLAKE	JAMES
JONES	FORD
CLARK	MILLER

13 rows selected.

152)

```
1 SELECT E1.ENAME,E1.HIREDATE ,E2. HIREDATE,E2.ENAME
2 FROM EMP E1, EMP E2
3* WHERE E1.EMPNO= E2.MGR AND E1.HIREDATE= E2.HIREDATE
SQL> /
```

no rows selected

153)

```
1 SELECT E1.ENAME,E2.ENAME
2 FROM EMP E1, EMP E2
3* WHERE E1.EMPNO= E2.MGR AND E1.HIREDATE<E2.HIREDATE
SQL> /
```

ENAME	ENAME
BLAKE	MARTIN
JONES	SCOTT
BLAKE	TURNER
SCOTT	ADAMS
BLAKE	JAMES
JONES	FORD
CLARK	MILLER

7 rows selected.

154)

```
1 SELECT E1.ENAME, E2.ENAME
2 FROM EMP E1 , EMP E2 , DEPT D1 , DEPT D2
3* WHERE E1.EMPNO= E2.MGR AND D1.DEPTNO=E1.DEPTNO AND D2.DEPTNO =
E2.DEPTNO AND D1.LOC =D2.LOC
SQL> /
```

ENAME	ENAME
FORD	SMITH
BLAKE	ALLEN
BLAKE	WARD
BLAKE	MARTIN
KING	CLARK
JONES	SCOTT
BLAKE	TURNER

SCOTT ADAMS
 BLAKE JAMES
 JONES FORD
 CLARK MILLER

11 rows selected.

155)

```
SQL> SELECT *
FROM EMP
WHERE SAL IN (SELECT SAL FROM EMP
              WHERE ENAME='SCOTT');
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7902	FORD	ANALYST	7566	03-DEC-81	3000	20	
7788	SCOTT	ANALYST	7566	19-APR-87	3000	20	

156)

```
1 SELECT *
2 FROM EMP
3 WHERE DEPTNO IN (SELECT DEPTNO
4                  FROM EMP
5*                WHERE ENAME='ALLEN')
SQL> /
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30

6 rows selected.

157)

```
1 SELECT *
2 FROM EMP
```

```

3 WHERE HIREDATE IN ( SELECT HIREDATE
4                       FROM EMP
5*                      WHERE ENAME='FORD')
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30

```

158)
SQL> SELECT ENAME
2 FROM EMP
3 WHERE MGR IS NULL;

```

```

ENAME
-----
KING

```

```

159)
1 SELECT *
2 FROM EMP
3 WHERE EMPNO NOT IN ( SELECT MGR
4                       FROM EMP
5*                      WHERE MGR IS NOT NULL )
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

8 rows selected.

```

160)
SQL> SELECT E1.ENAME
2 FROM EMP E1 ,EMP E2

```

```
3 WHERE E1.EMPNO = E2.MGR AND E1.MGR IS NULL;
```

```
ENAME
```

```
-----
```

```
KING
```

```
161)
```

```
SQL> SELECT DNAME
```

```
2 FROM DEPT
```

```
3 WHERE DEPTNO IN ( SELECT DEPTNO
```

```
4 FROM EMP
```

```
5 WHERE ENAME IS NOT NULL);
```

```
DNAME
```

```
-----
```

```
ACCOUNTING
```

```
RESEARCH
```

```
SALES
```

```
162)
```

```
1 SELECT DNAME
```

```
2 FROM DEPT
```

```
3 WHERE DEPTNO NOT IN ( SELECT DEPTNO
```

```
4 FROM EMP
```

```
5* WHERE ENAME IS NOT NULL)
```

```
SQL> /
```

```
DNAME
```

```
-----
```

```
OPERATIONS
```

```
163)
```

```
1 SELECT DISTINCT (E1.ENAME) , E1.*
```

```
2 FROM EMP E1,EMP E2
```

```
3* WHERE E1.EMPNO = E2.MGR
```

```
SQL> /
```

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

KING	7839	KING	PRESIDENT		17-NOV-81	5000	
------	------	------	-----------	--	-----------	------	--

```
10
```

JONES	7566	JONES	MANAGER	7839	02-APR-81	2975	20
SCOTT	7788	SCOTT	ANALYST	7566	19-APR-87	3000	
20							
FORD	7902	FORD	ANALYST	7566	03-DEC-81	3000	
20							
BLAKE	7698	BLAKE	MANAGER	7839	01-MAY-81	2850	
30							
CLARK	7782	CLARK	MANAGER	7839	09-JUN-81	2450	
10							

164)

```

1 SELECT DISTINCT( E1.ENAME)
2 FROM EMP E1, EMP E2
3* WHERE E1.EMPNO = E2.MGR
SQL> /

```

ENAME

```

-----
JONES
FORD
CLARK
SCOTT
BLAKE
KING

```

6 rows selected.

165)

```

1 SELECT E1.ENAME,E2.MGR
2 FROM EMP E1, EMP E2
3 WHERE E1.EMPNO=E2.MGR AND E2.MGR IS NOT NULL
4 GROUP BY E2.MGR, E1.ENAME
5* HAVING COUNT(*)>=3
6 /

```

ENAME MGR

```

-----
KING            7839
BLAKE           7698

```

166)

SQL> SELECT *

```

2 FROM EMP
3 WHERE SAL IN ( SELECT MAX(SAL)
4               FROM EMP);

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000	10	

```

167)
SQL> SELECT E1.SAL
2 FROM EMP E1
3 WHERE ( SELECT COUNT(DISTINCT(SAL))
4         FROM EMP E2
5         WHERE E1.SAL <E2.SAL ) IN (3,6);

```

SAL
2850
1500

```

168)
SQL> SELECT E1.ENAME,E1.SAL
2 FROM EMP E1
3 WHERE ( SELECT COUNT( DISTINCT(SAL))
4         FROM EMP
5         WHERE E1.SAL < SAL
6         )=3;

```

ENAME	SAL
BLAKE	2850

```

169)
1 SELECT E1.ENAME,E1.SAL
2 FROM EMP E1
3 WHERE ( SELECT COUNT( DISTINCT(SAL))
4         FROM EMP
5         WHERE E1.SAL < SAL
6*        )=9
SQL> /

```

ENAME	SAL
-------	-----

ADAMS 1100

170)

SQL> SELECT *

2 FROM EMP

3 WHERE SUBSTR(ENAME,1,1) IN ('A','E','I','O','U');

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20

171)

1 SELECT *

2 FROM EMP

3* WHERE SUBSTR(ENAME,1,1) NOT IN ('A','E','I','O','U')

SQL> /

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20
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	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
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

12 rows selected.

172)

1 SELECT *

2 FROM EMP,DEPT

3* WHERE SUBSTR(ENAME,1,1) IN ('A','E','I','O','U') AND SUBSTR(LOC,-1,1) IN ('A','E','I','O','U')

SQL> /

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

DEPTNO DNAME LOC

```

-----
7499 ALLEN SALESMAN 7698 20-FEB-81 1600 300 30 30
SALES CHICAGO
7876 ADAMS CLERK 7788 23-MAY-87 1100 30 30
SALES CHICAGO

```

173)

```

1 SELECT *
2 FROM EMP
3* WHERE INSTR(ENAME,'L',1,2)>1
SQL> /

```

```

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO
-----
7499 ALLEN SALESMAN 7698 20-FEB-81 1600 300 30
7934 MILLER CLERK 7782 23-JAN-82 1300 10

```

174)

```

1 SELECT *
2 FROM EMP
3* WHERE INSTR(JOB,SUBSTR(ENAME,-1),1 )>1
SQL> /

```

```

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO
-----
7499 ALLEN SALESMAN 7698 20-FEB-81 1600 300 30
7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30
7698 BLAKE MANAGER 7839 01-MAY-81 2850 30
7788 SCOTT ANALYST 7566 19-APR-87 3000 20
7934 MILLER CLERK 7782 23-JAN-82 1300 10

```

175)

```

SQL> SELECT *
2 FROM EMP,DEPT
3 WHERE EMP.DEPTNO= DEPT.DEPTNO AND ( INSTR(ENAME,SUBSTR(LOC,-1,1))>1 OR
INSTR(ENAME,SUBSTR(LOC,1,1))>1);

```

```

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

```



```

-----
      7566 JONES    MANAGER      7839 02-APR-81    2975             20             20
RESEARCH    DALLAS
      7782 CLARK    MANAGER      7839 09-JUN-81    2450             10             10
ACCOUNTING   NEW YORK
      7839 KING    PRESIDENT          17-NOV-81     5000             10             10
ACCOUNTING   NEW YORK
      7876 ADAMS    CLERK       7788 23-MAY-87    1100             20             20
RESEARCH    DALLAS
      7902 FORD    ANALYST      7566 03-DEC-81    3000             20             20
RESEARCH    DALLAS

```

176)

```

1 SELECT*
2 FROM EMP
3* WHERE INSTR(ENAME,SUBSTR(JOB,LENGTH(JOB)/2,1 ),(LENGTH(ENAME)/2 ),1)>1
SQL> /

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

177)

```

SQL> SELECT *
2 FROM EMP
3 WHERE INSTR(ENAME,'R',1,2)>1;

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30

178)

```

SQL> SELECT EMP.*, REPLACE( ENAME,SUBSTR(ENAME,-1),'*')
2 FROM EMP
3 WHERE SUBSTR(ENAME,-1) IN ('A','E','I','O','U');

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
REPLACE(EN							

7698	BLAKE	MANAGER	7839	01-MAY-81	2850	30	BLAK*
------	-------	---------	------	-----------	------	----	-------

179)

```

1 SELECT E2.JOB,E1.ENAME
2 FROM ( SELECT * FROM EMP E2 WHERE SAL*12<50000)E2 RIGHT OUTER JOIN
EMP E1
3* ON E1.EMPNO=E2.EMPNO
SQL> /

```

JOB	ENAME
-----	-----
CLERK	SMITH
SALESMAN	ALLEN
SALESMAN	WARD
MANAGER	JONES
SALESMAN	MARTIN
MANAGER	BLAKE
MANAGER	CLARK
ANALYST	SCOTT
	KING
SALESMAN	TURNER
CLERK	ADAMS
CLERK	JAMES
ANALYST	FORD
CLERK	MILLER

14 rows selected.

180)

```

1 SELECT *
2 FROM EMP
3* WHERE (SUBSTR(ENAME,1,1) IN ('A','E','I','O','U')) AND SAL >SAL
SQL> /

```

no rows selected

181)

```

SQL> SELECT E1.ENAME
2 FROM EMP E1 , EMP E2,EMP E3
3 WHERE E1.MGR = E2.EMPNO AND E2.MGR = E3.EMPNO AND E3.MGR IS NULL AND
E3.DEPTNO IN (10,20);

```

ENAME

ALLEN
WARD
MARTIN
SCOTT
TURNER
JAMES
FORD
MILLER

8 rows selected.

182)

```
1 SELECT COUNT(SAL), SAL
2 FROM EMP
3* GROUP BY SAL
SQL> /
```

COUNT(SAL)	SAL
------------	-----

1	2450
1	5000
1	1300
2	1250
1	2850
1	2975
1	1100
2	3000
1	800
1	1600
1	1500
1	950

183)

```
1 SELECT ENAME
2 FROM EMP
3 GROUP BY ENAME
4* HAVING COUNT(*)>1
SQL> /
```

no rows selected

184)

```
1 SELECT DNAME,E2.DEPTNO, E2.ENAME
2 FROM EMP E1 , EMP E2 , DEPT
3 WHERE E1.MGR=E2.EMPNO AND E2.DEPTNO = DEPT.DEPTNO
4 GROUP BY E2.DEPTNO,DNAME,E2.ENAME
5* HAVING COUNT(E2.ENAME)>2
SQL> /
```

DNAME	DEPTNO	ENAME
SALES	30	BLAKE
ACCOUNTING	10	KING

OR

```
1 SELECT *
2 FROM DEPT
3 WHERE DEPTNO IN( SELECT DEPTNO
4                   FROM EMP
5                   WHERE EMPNO IN ( SELECT MGR
6                                   FROM EMP
7                                   GROUP BY MGR
8*                                HAVING COUNT(*)>2) )
SQL> /
```

DEPTNO	DNAME	LOC
30	SALES	CHICAGO
10	ACCOUNTING	NEW YORK

185)

Wrote file afiedt.buf

```
1 SELECT
CONCAT(UPPER(SUBSTR(ENAME,1,LENGTH(ENAME)/2)),LOWER(SUBSTR(ENAME,LENGTH(ENAME)/2+1)))
2 FROM EMP
3 WHERE DEPTNO IN (SELECT DEPTNO
4                 FROM DEPT
5                 WHERE DNAME IN (SELECT DNAME
6                                FROM DEPT
```

```

7                                WHERE DNAME IN
('RESEARCH','ACCOUNTING') ))
8 UNION
9 SELECT CONCAT( REPLACE(ENAME,SUBSTR(ENAME,1,LENGTH(ENAME)/2),'$'),
REPLACE(ENAME,SUBSTR(ENAME,-1,LENGTH(ENAME)/2+1),'$')
10 FROM EMP
11 WHERE DEPTNO IN (SELECT DEPTNO
12                FROM DEPT
13*              WHERE DNAME NOT IN ('RESEARCH','ACCOUNTING') )
SQL> /

```

```

CONCAT(UPPER(SUBSTR(

```

```

-----
$AME$
$AR$
$ARTI$
$LAK$
$LLE$
$URNE$
ADams
CLark
FOrd
JOnes
KIng
MILler
SCott
SMith

```

14 rows selected.

186)

```

SQL> SELECT *
2 FROM EMP
3 WHERE MOD(SAL*12,2)=0;

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	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	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	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

14 rows selected.

187)

```
SQL> SELECT TO_CHAR(SYSDATE,'YYYY') - TO_CHAR(HIREDATE,'YYYY')
2 FROM EMP;
```

```
TO_CHAR(SYSDATE,'YYYY')-TO_CHAR(HIREDATE,'YYYY')
```

```
-----
41
40
40
40
40
40
40
40
34
40
40
34
40
40
39
```

14 rows selected.

188)

```
SQL> SELECT *
2 FROM EMP
3 WHERE TO_CHAR(HIREDATE,'DD')IN(10,15) AND
TO_CHAR(HIREDATE,'MON')IN('FEB','DEC') AND SAL>2000;
```

no rows selected

189)

```
SQL> SELECT SYSDATE+365*2
```

```
2 FROM EMP
```

```
3 WHERE ENAME ='SMITH' AND HIREDATE IS NOT NULL;
```

```
SYSDATE+3
```

```
-----
```

```
05-JAN-23
```

190)

```
SQL> SELECT TO_CHAR(SYSDATE,'YYYY') - TO_CHAR(HIREDATE,'YYYY')
```

```
2 FROM EMP;
```

```
TO_CHAR(SYSDATE,'YYYY')-TO_CHAR(HIREDATE,'YYYY')
```

```
-----
```

```
41
```

```
40
```

```
40
```

```
40
```

```
40
```

```
40
```

```
40
```

```
40
```

```
34
```

```
40
```

```
40
```

```
34
```

```
40
```

```
40
```

```
39
```

14 rows selected.

191)

```
1 SELECT ABS (TO_CHAR(SYSDATE,'DD') -31)
```

```
2* FROM DUAL
```

```
SQL> /
```

```
ABS(TO_CHAR(SYSDATE,'DD')-31)
```

```
-----
```

192)

SQL> SELECT *

2 FROM EMP

3 WHERE TO_CHAR(HIREDATE,'DY')='FRI' AND TO_CHAR(HIREDATE,'MON')>'MAR' AND
TO_CHAR(HIREDATE,'MON')<'NOV';

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30

193)

1 SELECT *

2 FROM (SELECT ROWNUM SRNO , HIREDATE ,ENAME, SAL, COMM , DEPTNO ,
EMPNO

3 FROM (SELECT EMP.*

4 FROM EMP

5 WHERE TO_CHAR(HIREDATE,'DY')>='MON'))

6 WHERE SRNO >0

7* ORDER BY DBMS_RANDOM.VALUE

SQL> /

SRNO	HIREDATE	ENAME	SAL	COMM	DEPTNO	EMPNO
8	08-SEP-81	TURNER	1500	0	30	7844
6	19-APR-87	SCOTT	3000	20	7788	
4	28-SEP-81	MARTIN	1250	1400	30	7654
1	17-DEC-80	SMITH	800	20	7369	
7	17-NOV-81	KING	5000	10	7839	
10	03-DEC-81	JAMES	950	30	7900	
11	03-DEC-81	FORD	3000	20	7902	
12	23-JAN-82	MILLER	1300	10	7934	
9	23-MAY-87	ADAMS	1100	20	7876	
2	22-FEB-81	WARD	1250	500	30	7521
5	09-JUN-81	CLARK	2450	10	7782	
3	02-APR-81	JONES	2975	20	7566	

12 rows selected.

194)

SQL> SELECT SAL "TOTAL SAL"

2 FROM EMP

3 WHERE NVL2(SAL+COMM,SAL,0) IS NOT NULL;

TOTAL SAL

800

1600

1250

2975

1250

2850

2450

3000

5000

1500

1100

950

3000

1300

14 rows selected.