

Spool File For Oracle Students Trained By Mr. Balram

```
SQL> SELECT E.ENAME, D.DEPTNO, D.DNAME
  2   FROM EMP E, DEPT D
  3   WHERE E.DEPTNO=D.DEPTNO
  4   ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME |
|--------|--------|------------|
| KING | 10 | ACCOUNTING |
| CLARK | 10 | ACCOUNTING |
| MILLER | 10 | ACCOUNTING |
| ADAMS | 20 | RESEARCH |
| SCOTT | 20 | RESEARCH |
| SMITH | 20 | RESEARCH |
| FORD | 20 | RESEARCH |
| JONES | 20 | RESEARCH |
| WARD | 30 | SALES |
| JAMES | 30 | SALES |
| ALLEN | 30 | SALES |
| MARTIN | 30 | SALES |
| BLAKE | 30 | SALES |
| TURNER | 30 | SALES |

14 rows selected.

```
SQL> SELECT E.ENAME, D.DEPTNO, D.DNAME
  2   FROM EMP E, DEPT D
  3   WHERE E.DEPTNO(+) = D.DEPTNO
  4   ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME |
|--------|--------|------------|
| KING | 10 | ACCOUNTING |
| MILLER | 10 | ACCOUNTING |
| CLARK | 10 | ACCOUNTING |
| FORD | 20 | RESEARCH |
| SMITH | 20 | RESEARCH |
| SCOTT | 20 | RESEARCH |
| ADAMS | 20 | RESEARCH |
| JONES | 20 | RESEARCH |
| WARD | 30 | SALES |
| JAMES | 30 | SALES |
| ALLEN | 30 | SALES |
| MARTIN | 30 | SALES |
| BLAKE | 30 | SALES |
| TURNER | 30 | SALES |
| | 40 | OPERATIONS |

15 rows selected.

```
SQL> SELECT E.ENAME, D.DEPTNO, D.DNAME
  2   FROM EMP E, DEPT D
  3   WHERE E.DEPTNO=D.DEPTNO(+)
  4   ORDER BY E.DEPTNO;
```

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| ENAME | DEPTNO | DNAME |
|--------|--------|------------|
| KING | 10 | ACCOUNTING |
| CLARK | 10 | ACCOUNTING |
| MILLER | 10 | ACCOUNTING |
| SMITH | 20 | RESEARCH |
| SCOTT | 20 | RESEARCH |
| ADAMS | 20 | RESEARCH |
| FORD | 20 | RESEARCH |
| JONES | 20 | RESEARCH |
| WARD | 30 | SALES |
| JAMES | 30 | SALES |
| TURNER | 30 | SALES |
| ALLEN | 30 | SALES |
| MARTIN | 30 | SALES |
| BLAKE | 30 | SALES |

14 rows selected.

```
SQL> BEGIN
  2  INSERT INTO DEPT
  3  VALUES (50, 'SHIPPING', 'CHENNAI');
  4  INSERT INTO DEPT
  5  VALUES (60, 'CARGO', 'MUMBAI');
  6  INSERT INTO DEPT
  7  VALUES (70, 'COURIER', 'DELHI');
  8  END;
  9  /
```

PL/SQL procedure successfully completed.

```
SQL> SELECT
  2  E.ENAME,
  3  D.DEPTNO,
  4  D.DNAME,
  5  D.LOC
  6  FROM EMP E, DEPT D
  7  WHERE E.DEPTNO=D.DEPTNO
  8  ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME | LOC |
|--------|--------|------------|----------|
| KING | 10 | ACCOUNTING | NEW YORK |
| CLARK | 10 | ACCOUNTING | NEW YORK |
| MILLER | 10 | ACCOUNTING | NEW YORK |
| ADAMS | 20 | RESEARCH | DALLAS |
| SCOTT | 20 | RESEARCH | DALLAS |
| SMITH | 20 | RESEARCH | DALLAS |
| FORD | 20 | RESEARCH | DALLAS |
| JONES | 20 | RESEARCH | DALLAS |
| WARD | 30 | SALES | CHICAGO |
| JAMES | 30 | SALES | CHICAGO |

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| | | | |
|--------|----|-------|---------|
| ALLEN | 30 | SALES | CHICAGO |
| MARTIN | 30 | SALES | CHICAGO |
| BLAKE | 30 | SALES | CHICAGO |
| TURNER | 30 | SALES | CHICAGO |

14 rows selected.

```
SQL> SELECT
  2  E.ENAME,
  3  D.DEPTNO,
  4  D.DNAME,
  5  D.LOC
  6  FROM EMP E, DEPT D
  7  WHERE E.DEPTNO(+) = D.DEPTNO
  8  ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME | LOC |
|--------|--------|------------|----------|
| KING | 10 | ACCOUNTING | NEW YORK |
| CLARK | 10 | ACCOUNTING | NEW YORK |
| MILLER | 10 | ACCOUNTING | NEW YORK |
| ADAMS | 20 | RESEARCH | DALLAS |
| SCOTT | 20 | RESEARCH | DALLAS |
| SMITH | 20 | RESEARCH | DALLAS |
| FORD | 20 | RESEARCH | DALLAS |
| JONES | 20 | RESEARCH | DALLAS |
| WARD | 30 | SALES | CHICAGO |
| TURNER | 30 | SALES | CHICAGO |
| BLAKE | 30 | SALES | CHICAGO |
| MARTIN | 30 | SALES | CHICAGO |
| JAMES | 30 | SALES | CHICAGO |
| ALLEN | 30 | SALES | CHICAGO |
| | 40 | OPERATIONS | BOSTON |
| | 60 | CARGO | MUMBAI |
| | 50 | SHIPPING | CHENNAI |

| ENAME | DEPTNO | DNAME | LOC |
|-------|--------|---------|-------|
| | 70 | COURIER | DELHI |

18 rows selected.

```
SQL> SELECT
  2  E.ENAME,
  3  E.DEPTNO,
  4  D.DNAME,
  5  D.LOC
  6  FROM EMP E, DEPT D
  7  WHERE E.DEPTNO(+) = D.DEPTNO
  8  ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME | LOC |
|-------|--------|-------|-----|
|-------|--------|-------|-----|

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| | | | |
|--------|----|------------|----------|
| KING | 10 | ACCOUNTING | NEW YORK |
| CLARK | 10 | ACCOUNTING | NEW YORK |
| MILLER | 10 | ACCOUNTING | NEW YORK |
| ADAMS | 20 | RESEARCH | DALLAS |
| SCOTT | 20 | RESEARCH | DALLAS |
| SMITH | 20 | RESEARCH | DALLAS |
| FORD | 20 | RESEARCH | DALLAS |
| JONES | 20 | RESEARCH | DALLAS |
| WARD | 30 | SALES | CHICAGO |
| TURNER | 30 | SALES | CHICAGO |
| BLAKE | 30 | SALES | CHICAGO |
| MARTIN | 30 | SALES | CHICAGO |
| JAMES | 30 | SALES | CHICAGO |
| ALLEN | 30 | SALES | CHICAGO |
| | | OPERATIONS | BOSTON |
| | | CARGO | MUMBAI |
| | | SHIPPING | CHENNAI |

| ENAME | DEPTNO | DNAME | LOC |
|-------|--------|---------|-------|
| | | COURIER | DELHI |

18 rows selected.

```
SQL> SELECT
  2  E.ENAME,
  3  D.DEPTNO,
  4  D.DNAME,
  5  D.LOC
  6  FROM EMP E, DEPT D
  7  WHERE E.DEPTNO(+) = D.DEPTNO
  8  ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME | LOC |
|--------|--------|------------|----------|
| KING | 10 | ACCOUNTING | NEW YORK |
| CLARK | 10 | ACCOUNTING | NEW YORK |
| MILLER | 10 | ACCOUNTING | NEW YORK |
| ADAMS | 20 | RESEARCH | DALLAS |
| SCOTT | 20 | RESEARCH | DALLAS |
| SMITH | 20 | RESEARCH | DALLAS |
| FORD | 20 | RESEARCH | DALLAS |
| JONES | 20 | RESEARCH | DALLAS |
| WARD | 30 | SALES | CHICAGO |
| TURNER | 30 | SALES | CHICAGO |
| BLAKE | 30 | SALES | CHICAGO |
| MARTIN | 30 | SALES | CHICAGO |
| JAMES | 30 | SALES | CHICAGO |
| ALLEN | 30 | SALES | CHICAGO |
| | 40 | OPERATIONS | BOSTON |
| | 60 | CARGO | MUMBAI |
| | 50 | SHIPPING | CHENNAI |

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| ENAME | DEPTNO | DNAME | LOC |
|-------|--------|---------|-------|
| | 70 | COURIER | DELHI |

18 rows selected.

```
SQL> SELECT
  2  E.ENAME,
  3  D.DEPTNO,
  4  D.DNAME,
  5  D.LOC
  6  FROM EMP E, DEPT D
  7  WHERE E.DEPTNO(+) = D.DEPTNO AND
  8  E.DEPTNO = 10
  9  ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME | LOC |
|--------|--------|------------|----------|
| KING | 10 | ACCOUNTING | NEW YORK |
| CLARK | 10 | ACCOUNTING | NEW YORK |
| MILLER | 10 | ACCOUNTING | NEW YORK |

```
SQL> SELECT
  2  E.ENAME,
  3  D.DEPTNO,
  4  D.DNAME,
  5  D.LOC
  6  FROM EMP E, DEPT D
  7  WHERE E.DEPTNO(+) = D.DEPTNO AND
  8  E.DEPTNO(+) = 10
  9  ORDER BY E.DEPTNO;
```

| ENAME | DEPTNO | DNAME | LOC |
|--------|--------|------------|----------|
| MILLER | 10 | ACCOUNTING | NEW YORK |
| KING | 10 | ACCOUNTING | NEW YORK |
| CLARK | 10 | ACCOUNTING | NEW YORK |
| | 50 | SHIPPING | CHENNAI |
| | 60 | CARGO | MUMBAI |
| | 40 | OPERATIONS | BOSTON |
| | 70 | COURIER | DELHI |
| | 20 | RESEARCH | DALLAS |
| | 30 | SALES | CHICAGO |

9 rows selected.

```
SQL> SELECT
  2  NVL(E.ENAME, 'NOT RECRUITED OR REQUESTED'),
  3  D.DEPTNO,
  4  D.DNAME,
  5  D.LOC
  6  FROM EMP E, DEPT D
  7  WHERE E.DEPTNO(+) = D.DEPTNO AND
```

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```
8  E.DEPTNO(+) =10
9  ORDER BY E.DEPTNO;
```

| NVL(E.ENAME, 'NOTRECRUITED') | DEPTNO | DNAME | LOC |
|------------------------------|--------|------------|----------|
| MILLER | 10 | ACCOUNTING | NEW YORK |
| KING | 10 | ACCOUNTING | NEW YORK |
| CLARK | 10 | ACCOUNTING | NEW YORK |
| NOT RECRUITED OR REQUESTED | 50 | SHIPPING | CHENNAI |
| NOT RECRUITED OR REQUESTED | 60 | CARGO | MUMBAI |
| NOT RECRUITED OR REQUESTED | 40 | OPERATIONS | BOSTON |
| NOT RECRUITED OR REQUESTED | 70 | COURIER | DELHI |
| NOT RECRUITED OR REQUESTED | 20 | RESEARCH | DALLAS |
| NOT RECRUITED OR REQUESTED | 30 | SALES | CHICAGO |

9 rows selected.

```
SQL> SELECT
      2  E.ENAME EMPLOYEE,
      3  NVL(M.ENAME, 'SUPREME AUTHORITY') MANAGER
      4  FROM EMP E, EMP M
      5  WHERE E.MGR=M.EMPNO;
```

| EMPLOYEE | MANAGER |
|----------|---------|
| SCOTT | JONES |
| FORD | JONES |
| JAMES | BLAKE |
| WARD | BLAKE |
| TURNER | BLAKE |
| ALLEN | BLAKE |
| MARTIN | BLAKE |
| MILLER | CLARK |
| ADAMS | SCOTT |
| BLAKE | KING |
| CLARK | KING |
| JONES | KING |
| SMITH | FORD |

13 rows selected.

```
SQL> SELECT
      2  E.ENAME EMPLOYEE,
      3  NVL(M.ENAME, 'SUPREME AUTHORITY') MANAGER
      4  FROM EMP E, EMP M
      5  WHERE E.MGR=M.EMPNO(+);
```

| EMPLOYEE | MANAGER |
|----------|---------|
| JONES | KING |
| CLARK | KING |
| BLAKE | KING |
| WARD | BLAKE |

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| | |
|--------|-------------------|
| JAMES | BLAKE |
| TURNER | BLAKE |
| ALLEN | BLAKE |
| MARTIN | BLAKE |
| MILLER | CLARK |
| SCOTT | JONES |
| FORD | JONES |
| SMITH | FORD |
| ADAMS | SCOTT |
| KING | SUPREME AUTHORITY |

14 rows selected.

```
SQL> SELECT
  2  E.ENAME Employee,
  3  E.DEPTNO DEPARTMENT,
  4  M.ENAME MANAGER,
  5  M.DEPTNO "MANAGER'S DEPT"
  6  FROM EMP E,DEPT D, EMP M
  7  WHERE E.MGR=M.EMPNO AND E.DEPTNO=D.DEPTNO;
```

| EMPLOYEE | DEPARTMENT | MANAGER | MANAGER'S DEPT |
|----------|------------|---------|----------------|
| SCOTT | 20 | JONES | 20 |
| FORD | 20 | JONES | 20 |
| JAMES | 30 | BLAKE | 30 |
| WARD | 30 | BLAKE | 30 |
| TURNER | 30 | BLAKE | 30 |
| ALLEN | 30 | BLAKE | 30 |
| MARTIN | 30 | BLAKE | 30 |
| MILLER | 10 | CLARK | 10 |
| ADAMS | 20 | SCOTT | 20 |
| BLAKE | 30 | KING | 10 |
| CLARK | 10 | KING | 10 |
| JONES | 20 | KING | 10 |
| SMITH | 20 | FORD | 20 |

13 rows selected.

```
SQL> SELECT
  2  E.ENAME Employee,
  3  E.DEPTNO DEPARTMENT,
  4  M.ENAME MANAGER,
  5  M.DEPTNO "MANAGER'S DEPT"
  6  FROM EMP E,EMP M
  7  WHERE E.MGR=M.EMPNO;
```

| EMPLOYEE | DEPARTMENT | MANAGER | MANAGER'S DEPT |
|----------|------------|---------|----------------|
| SCOTT | 20 | JONES | 20 |
| FORD | 20 | JONES | 20 |
| JAMES | 30 | BLAKE | 30 |
| WARD | 30 | BLAKE | 30 |

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

13 rows selected.

```
SQL> SELECT
  2  E.ENAME  EMPLOYEE,
  3  D.DNAME  DEPARTMENT,
  4  M.ENAME  MANAGER,
  5  DNAME    "MANAGER'S DEPARTMENT"
  6  FROM EMP E, DEPT D, EMP M
  7  WHERE E.MGR = M.EMPNO AND E.DEPTNO=D.DEPTNO;
```

| EMPLOYEE | DEPARTMENT | MANAGER | MANAGER'S DEPA |
|----------|------------|---------|----------------|
| BLAKE | SALES | KING | SALES |
| JONES | RESEARCH | KING | RESEARCH |
| CLARK | ACCOUNTING | KING | ACCOUNTING |
| JAMES | SALES | BLAKE | SALES |
| MARTIN | SALES | BLAKE | SALES |
| ALLEN | SALES | BLAKE | SALES |
| TURNER | SALES | BLAKE | SALES |
| WARD | SALES | BLAKE | SALES |
| MILLER | ACCOUNTING | CLARK | ACCOUNTING |
| FORD | RESEARCH | JONES | RESEARCH |
| SCOTT | RESEARCH | JONES | RESEARCH |
| SMITH | RESEARCH | FORD | RESEARCH |
| ADAMS | RESEARCH | SCOTT | RESEARCH |

13 rows selected.

```
SQL> SELECT
  2  E.ENAME  EMPLOYEE,
  3  DNAME    DEPARTMENT,
  4  M.ENAME  MANAGER,
  5  DNAME    "MANAGER'S DEPARTMENT"
  6  FROM EMP E, DEPT D, EMP M
  7  WHERE E.MGR = M.EMPNO AND M.DEPTNO=D.DEPTNO;
```

| EMPLOYEE | DEPARTMENT | MANAGER | MANAGER'S DEPA |
|----------|------------|---------|----------------|
| BLAKE | ACCOUNTING | KING | ACCOUNTING |
| CLARK | ACCOUNTING | KING | ACCOUNTING |
| JONES | ACCOUNTING | KING | ACCOUNTING |
| MARTIN | SALES | BLAKE | SALES |
| ALLEN | SALES | BLAKE | SALES |

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| | | | |
|--------|------------|-------|------------|
| TURNER | SALES | BLAKE | SALES |
| JAMES | SALES | BLAKE | SALES |
| WARD | SALES | BLAKE | SALES |
| FORD | RESEARCH | JONES | RESEARCH |
| SMITH | RESEARCH | FORD | RESEARCH |
| SCOTT | RESEARCH | JONES | RESEARCH |
| ADAMS | RESEARCH | SCOTT | RESEARCH |
| MILLER | ACCOUNTING | CLARK | ACCOUNTING |

13 rows selected.

SQL> ED
Wrote file afiedt.buf

```
1  SELECT
2  E.ENAME  EmpName,
3  E.Job    EmpJob,
4  E.Sal    EmpSal,
5  DE.DNAME EmpDept,
6  M.ENAME  MGRName,
7  M.Job    MGRJob,
8  M.Sal    MGRSal,
9  DM.DNAME MGRDept
10 DNAME  "MANAGER'S DEPARTMENT"
11 FROM EMP E, DEPT DE, EMP M, DEPT DM
12 WHERE E.MGR = M.EMPNO AND
13        E.DEPTNO=DE.DEPTNO AND
14*      M.DEPTNO = DM.DEPTNO
```

SQL> /
DNAME "MANAGER'S DEPARTMENT"
*
ERROR at line 10:
ORA-00923: FROM keyword not found where expected

```
SQL> SELECT
2  E.ENAME  EmpName,
3  E.Job    EmpJob,
4  E.Sal    EmpSal,
5  DE.DNAME EmpDept,
6  M.ENAME  MGRName,
7  M.Job    MGRJob,
8  M.Sal    MGRSal,
9  DM.DNAME MGRDept
10 FROM EMP E, DEPT DE, EMP M, DEPT DM
11 WHERE E.MGR = M.EMPNO(+) AND
12        E.DEPTNO(+) = DE.DEPTNO AND
13*      M.DEPTNO = DM.DEPTNO(+)
```

SQL> /

| EMPNAME | EMPJOB | EMPSAL | EMPDEPT | MGRNAME | MGRJOB |
|---------|---------|--------|---------|---------|--------|
| MGRSAL | MGRDEPT | | | | |

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```

-----
-----
MILLER      CLERK      1300 ACCOUNTING      CLARK      MANAGER
2450 ACCOUNTING
CLARK      MANAGER      2450 ACCOUNTING      KING      PRESIDENT
5000 ACCOUNTING
JONES      MANAGER      2975 RESEARCH      KING      PRESIDENT
5000 ACCOUNTING
BLAKE      MANAGER      2850 SALES      KING      PRESIDENT
5000 ACCOUNTING
ADAMS      CLERK      1100 RESEARCH      SCOTT      ANALYST
3000 RESEARCH
SMITH      CLERK      800 RESEARCH      FORD      ANALYST
3000 RESEARCH
SCOTT      ANALYST      3000 RESEARCH      JONES      MANAGER
2975 RESEARCH
FORD      ANALYST      3000 RESEARCH      JONES      MANAGER
2975 RESEARCH
WARD      SALESMAN      1250 SALES      BLAKE      MANAGER
2850 SALES
JAMES      CLERK      950 SALES      BLAKE      MANAGER
2850 SALES
ALLEN      SALESMAN      1600 SALES      BLAKE      MANAGER
2850 SALES
MARTIN      SALESMAN      1250 SALES      BLAKE      MANAGER
2850 SALES
TURNER      SALESMAN      1500 SALES      BLAKE      MANAGER
2850 SALES
KING      PRESIDENT      5000 ACCOUNTING
                        OPERATIONS
                        SHIPPING
                        CARGO

```

```

EMPNAME      EMPJOB      EMPSAL      EMPDEPT      MGRNAME      MGRJOB
MGRSAL      MGRDEPT
-----
-----

```

COURIER

18 rows selected.

```

SQL> ED
Wrote file afiedt.buf

```

```

1  SELECT
2  E.ENAME   EmpName,
3  E.Job     EmpJob,
4  E.Sal     EmpSal,
5  SE.GRADE  EmpGRD,
6  DE.DNAME  EmpDept,
7  M.ENAME   MGRName,
8  M.Job     MGRJob,
9  M.Sal     MGRSal,

```

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```
10 SM.GRADE MGRGrd,
11 DM.DNAME MGRDept
12 FROM EMP E, DEPT DE, SALGRADE SE, EMP M, DEPT DM SALGRADE SM
13 WHERE E.MGR = M.EMPNO(+) AND
14        E.DEPTNO(+) = DE.DEPTNO AND
15        M.DEPTNO = DM.DEPTNO(+) AND
16        E.SAL BETWEEN SE.LOSAL(+) AND SM.HISAL(+) AND
17*       M.SAL BETWEEN SM.LOSAL(+) AND SM.HISAL(+)
SQL> /
FROM EMP E, DEPT DE, SALGRADE SE, EMP M, DEPT DM SALGRADE SM
*
```

ERROR at line 12:
ORA-00933: SQL command not properly ended

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

```
1 SELECT
2   E.ENAME EmpName,
3   E.Job EmpJob,
4   E.Sal EmpSal,
5   SE.GRADE EmpGRD,
6   DE.DNAME EmpDept,
7   M.ENAME MGRName,
8   M.Job MGRJob,
9   M.Sal MGRSal,
10  SM.GRADE MGRGrd,
11  DM.DNAME MGRDept
12 FROM EMP E, DEPT DE, SALGRADE SE, EMP M, DEPT DM, SALGRADE SM
13 WHERE E.MGR = M.EMPNO(+) AND
14        E.DEPTNO(+) = DE.DEPTNO AND
15        M.DEPTNO = DM.DEPTNO(+) AND
16        E.SAL BETWEEN SE.LOSAL(+) AND SM.HISAL(+) AND
17*       M.SAL BETWEEN SM.LOSAL(+) AND SM.HISAL(+)
SQL> /
      E.SAL BETWEEN SE.LOSAL(+) AND SM.HISAL(+) AND
      *
```

ERROR at line 16:
ORA-01417: a table may be outer joined to at most one other table

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

```
1 SELECT
2   E.ENAME EmpName,
3   E.Job EmpJob,
4   E.Sal EmpSal,
5   SE.GRADE EmpGRD,
6   DE.DNAME EmpDept,
7   M.ENAME MGRName,
8   M.Job MGRJob,
```

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```
9 M.Sal MGRSal,
10 SM.GRADE MGRGrd,
11 DM.DNAME MGRDept
12 FROM EMP E, DEPT DE, SALGRADE SE, EMP M, DEPT DM, SALGRADE SM
13 WHERE E.MGR = M.EMPNO(+) AND
14         E.DEPTNO(+) = DE.DEPTNO(+) AND
15         M.DEPTNO = DM.DEPTNO(+) AND
16         E.SAL BETWEEN SE.LOSAL(+) AND SM.HISAL(+) AND
17*        M.SAL BETWEEN SM.LOSAL(+) AND SM.HISAL(+)
SQL> /
        E.SAL BETWEEN SE.LOSAL(+) AND SM.HISAL(+) AND
        *
```

ERROR at line 16:

ORA-01417: a table may be outer joined to at most one other table

SQL> ED

Wrote file afiedt.buf

```
1 SELECT
2   E.ENAME EmpName,
3   E.Job EmpJob,
4   E.Sal EmpSal,
5   SE.GRADE EmpGRD,
6   DE.DNAME EmpDept,
7   M.ENAME MGRName,
8   M.Job MGRJob,
9   M.Sal MGRSal,
10  SM.GRADE MGRGrd,
11  DM.DNAME MGRDept
12 FROM EMP E, DEPT DE, SALGRADE SE, EMP M, DEPT DM, SALGRADE SM
13 WHERE E.MGR = M.EMPNO(+) AND
14        E.DEPTNO(+) = DE.DEPTNO AND
15        M.DEPTNO = DM.DEPTNO(+) AND
16        E.SAL BETWEEN SE.LOSAL(+) AND SE.HISAL(+) AND
17*       M.SAL BETWEEN SM.LOSAL(+) AND SM.HISAL(+)
SQL> /
```

| EMPNAME | EMPJOB | EMPSAL | EMPGRD | EMPDEPT | MGRNAME |
|---------|--------|--------|---------|---------|---------|
| MGRJOB | MGRSAL | MGRGRD | MGRDEPT | | |

| | | | | | |
|-----------|-----------|------|------------|------------|------|
| | | | | CARGO | |
| | | | | COURIER | |
| | | | | SHIPPING | |
| | | | | OPERATIONS | |
| KING | PRESIDENT | 5000 | 5 | ACCOUNTING | |
| BLAKE | MANAGER | 2850 | 4 | SALES | KING |
| PRESIDENT | 5000 | 5 | ACCOUNTING | | |
| CLARK | MANAGER | 2450 | 4 | ACCOUNTING | KING |
| PRESIDENT | 5000 | 5 | ACCOUNTING | | |
| JONES | MANAGER | 2975 | 4 | RESEARCH | KING |
| PRESIDENT | 5000 | 5 | ACCOUNTING | | |

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| | | | | |
|---------|----------|------------|------------|-------|
| SMITH | CLERK | 800 | 1 RESEARCH | FORD |
| ANALYST | 3000 | 4 RESEARCH | | |
| ADAMS | CLERK | 1100 | 1 RESEARCH | SCOTT |
| ANALYST | 3000 | 4 RESEARCH | | |
| FORD | ANALYST | 3000 | 4 RESEARCH | JONES |
| MANAGER | 2975 | 4 RESEARCH | | |
| SCOTT | ANALYST | 3000 | 4 RESEARCH | JONES |
| MANAGER | 2975 | 4 RESEARCH | | |
| JAMES | CLERK | 950 | 1 SALES | BLAKE |
| MANAGER | 2850 | 4 SALES | | |
| MARTIN | SALESMAN | 1250 | 2 SALES | BLAKE |
| MANAGER | 2850 | 4 SALES | | |
| WARD | SALESMAN | 1250 | 2 SALES | BLAKE |
| MANAGER | 2850 | 4 SALES | | |
| TURNER | SALESMAN | 1500 | 3 SALES | BLAKE |
| MANAGER | 2850 | 4 SALES | | |
| ALLEN | SALESMAN | 1600 | 3 SALES | BLAKE |
| MANAGER | 2850 | 4 SALES | | |

| EMPNAME | EMPJOB | EMPSAL | EMPGRD | EMPDEPT | MGRNAME |
|---------|--------|--------|---------|---------|---------|
| MGRJOB | MGRSAL | MGRGRD | MGRDEPT | | |

| | | | | |
|---------|-------|--------------|--------------|-------|
| MILLER | CLERK | 1300 | 2 ACCOUNTING | CLARK |
| MANAGER | 2450 | 4 ACCOUNTING | | |

18 rows selected.

```

SQL> COL EMPNAME FORMAT A6
SQL> COL EMPSAL FORMAT 9999
SQL> COL MGRSAL FORMAT 9999
SQL> R
1  SELECT
2  E.ENAME EmpName,
3  E.Job EmpJob,
4  E.Sal EmpSal,
5  SE.GRADE EmpGRD,
6  DE.DNAME EmpDept,
7  M.ENAME MGRName,
8  M.Job MGRJob,
9  M.Sal MGRSal,
10 SM.GRADE MGRGrd,
11 DM.DNAME MGRDept
12 FROM EMP E, DEPT DE, SALGRADE SE, EMP M, DEPT DM, SALGRADE SM
13 WHERE E.MGR = M.EMPNO(+) AND
14        E.DEPTNO(+) = DE.DEPTNO AND
15        M.DEPTNO = DM.DEPTNO(+) AND
16        E.SAL BETWEEN SE.LOSAL(+) AND SE.HISAL(+) AND
17*       M.SAL BETWEEN SM.LOSAL(+) AND SM.HISAL(+)

```

| EMPNAM | EMPJOB | EMPSAL | EMPGRD | EMPDEPT | MGRNAME | MGRJOB |
|--------|--------|---------|--------|---------|---------|--------|
| MGRSAL | MGRGRD | MGRDEPT | | | | |

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```

-----
-----
CARGO
COURIER
SHIPPING
OPERATIONS
KING  PRESIDENT  5000  5 ACCOUNTING
BLAKE  MANAGER    2850  4 SALES      KING      PRESIDENT
5000      5 ACCOUNTING
CLARK  MANAGER    2450  4 ACCOUNTING  KING      PRESIDENT
5000      5 ACCOUNTING
JONES  MANAGER    2975  4 RESEARCH    KING      PRESIDENT
5000      5 ACCOUNTING
SMITH  CLERK       800   1 RESEARCH    FORD      ANALYST
3000      4 RESEARCH
ADAMS  CLERK       1100  1 RESEARCH    SCOTT     ANALYST
3000      4 RESEARCH
FORD   ANALYST     3000  4 RESEARCH    JONES     MANAGER
2975      4 RESEARCH
SCOTT  ANALYST     3000  4 RESEARCH    JONES     MANAGER
2975      4 RESEARCH
JAMES  CLERK       950   1 SALES      BLAKE     MANAGER
2850      4 SALES
MARTIN SALESMAN   1250  2 SALES      BLAKE     MANAGER
2850      4 SALES
WARD   SALESMAN   1250  2 SALES      BLAKE     MANAGER
2850      4 SALES
TURNER SALESMAN   1500  3 SALES      BLAKE     MANAGER
2850      4 SALES
ALLEN  SALESMAN   1600  3 SALES      BLAKE     MANAGER
2850      4 SALES

```

```

EMPNAM EMPJOB  EMPSAL  EMPGRD EMPDEPT  MGRNAME  MGRJOB
MGRSAL  MGRGRD MGRDEPT
-----
-----

```

```

MILLER CLERK      1300  2 ACCOUNTING  CLARK      MANAGER
2450      4 ACCOUNTING

```

18 rows selected.

SQL> ED
Wrote file afiedt.buf

```

1  SELECT
2  E.ENAME  EmpName,
3  E.Job    EmpJob,
4  E.Sal    EmpSal,
5  SE.GRADE EmpGRD,
6  DE.DNAME EmpDept,
7  M.ENAME  MGRName,
8  M.Job    MGRJob,
9  M.Sal    MGRSal,

```

Spool File For Oracle Students Trained By Mr. Balram

```

10 SM.GRADE MGRGrd,
11 DM.DNAME MGRDept
12 FROM EMP E, DEPT DE, SALGRADE SE, EMP M, DEPT DM, SALGRADE SM
13 WHERE E.MGR = M.EMPNO(+) AND
14        E.DEPTNO(+) = DE.DEPTNO AND
15        M.DEPTNO = DM.DEPTNO(+) AND
16        E.SAL BETWEEN SE.LOSAL(+) AND SE.HISAL(+) AND
17        M.SAL BETWEEN SM.LOSAL(+) AND SM.HISAL(+) AND
18*      E.SAL(+) * 12 >= 2500
SQL> /

```

| EMPNAME | EMPJOB | EMPSAL | EMPGRD | EMPDEPT | MGRNAME | MGRJOB |
|---------|-----------|--------|--------|------------|---------|-----------|
| KING | PRESIDENT | 5000 | 5 | ACCOUNTING | | |
| BLAKE | MANAGER | 2850 | 4 | SALES | KING | PRESIDENT |
| CLARK | MANAGER | 2450 | 4 | ACCOUNTING | KING | PRESIDENT |
| JONES | MANAGER | 2975 | 4 | RESEARCH | KING | PRESIDENT |
| SMITH | CLERK | 800 | 1 | RESEARCH | FORD | ANALYST |
| ADAMS | CLERK | 1100 | 1 | RESEARCH | SCOTT | ANALYST |
| FORD | ANALYST | 3000 | 4 | RESEARCH | JONES | MANAGER |
| SCOTT | ANALYST | 3000 | 4 | RESEARCH | JONES | MANAGER |
| JAMES | CLERK | 950 | 1 | SALES | BLAKE | MANAGER |
| MARTIN | SALESMAN | 1250 | 2 | SALES | BLAKE | MANAGER |
| WARD | SALESMAN | 1250 | 2 | SALES | BLAKE | MANAGER |
| TURNER | SALESMAN | 1500 | 3 | SALES | BLAKE | MANAGER |
| ALLEN | SALESMAN | 1600 | 3 | SALES | BLAKE | MANAGER |

| EMPNAME | EMPJOB | EMPSAL | EMPGRD | EMPDEPT | MGRNAME | MGRJOB |
|---------|--------|--------|--------|------------|---------|---------|
| MILLER | CLERK | 1300 | 2 | ACCOUNTING | CLARK | MANAGER |

18 rows selected.

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```
SQL> SPOOL OFF
```

Oracle 11g (SQL) By Balram