

---

DNAME	LOC
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
OPERATIONS	BOSTON
ACCOUNTING	NEW YORK
ACCOUNTING	NEW YORK
ACCOUNTING	NEW YORK

[illegible][illegible]

## Spool File For Oracle Students Trained By Mr. Balram

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RESEARCH	DALLAS
RESEARCH	DALLAS
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO

DNAME	LOC
-------	-----

---

SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO
SALES	CHICAGO

56 rows selected.

```
SQL> SELECT
  2  Ename, Job      --Project The Data Only From Emp Table
  3  FROM Emp, Dept  --JOIN Principle
  4  /
```

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

ENAME	JOB
BLAKE	MANAGER
TURNER	SALESMAN
JAMES	CLERK
SMITH	CLERK

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JONES	MANAGER
CLARK	MANAGER
SCOTT	ANALYST
KING	PRESIDENT
ADAMS	CLERK
FORD	ANALYST
MILLER	CLERK
ALLEN	SALESMAN
WARD	SALESMAN
MARTIN	SALESMAN
BLAKE	MANAGER
TURNER	SALESMAN
JAMES	CLERK

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

ENAME	JOB
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---

SCOTT	ANALYST
KING	PRESIDENT
ADAMS	CLERK
FORD	ANALYST
MILLER	CLERK

56 rows selected.

SQL> SELECT

```
2  Ename, Job,      --Project The Data Only From Emp Table
3  Dname, Loc       --Project The Data Only From Dept Table
4  FROM Emp, Dept   --JOIN Principle
5  /
```

ENAME	JOB	DNAME	LOC
ALLEN	SALESMAN	OPERATIONS	BOSTON

## Spool File For Oracle Students Trained By Mr. Balram

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WARD	SALESMAN	OPERATIONS	BOSTON
MARTIN	SALESMAN	OPERATIONS	BOSTON
BLAKE	MANAGER	OPERATIONS	BOSTON
TURNER	SALESMAN	OPERATIONS	BOSTON
JAMES	CLERK	OPERATIONS	BOSTON
SMITH	CLERK	OPERATIONS	BOSTON
JONES	MANAGER	OPERATIONS	BOSTON
CLARK	MANAGER	OPERATIONS	BOSTON
SCOTT	ANALYST	OPERATIONS	BOSTON
KING	PRESIDENT	OPERATIONS	BOSTON
ADAMS	CLERK	OPERATIONS	BOSTON
FORD	ANALYST	OPERATIONS	BOSTON
MILLER	CLERK	OPERATIONS	BOSTON
ALLEN	SALESMAN	ACCOUNTING	NEW YORK
WARD	SALESMAN	ACCOUNTING	NEW YORK
MARTIN	SALESMAN	ACCOUNTING	NEW YORK

ENAME	JOB	DNAME	LOC
BLAKE	MANAGER	ACCOUNTING	NEW YORK
TURNER	SALESMAN	ACCOUNTING	NEW YORK
JAMES	CLERK	ACCOUNTING	NEW YORK
SMITH	CLERK	ACCOUNTING	NEW YORK
JONES	MANAGER	ACCOUNTING	NEW YORK
CLARK	MANAGER	ACCOUNTING	NEW YORK
SCOTT	ANALYST	ACCOUNTING	NEW YORK
KING	PRESIDENT	ACCOUNTING	NEW YORK
ADAMS	CLERK	ACCOUNTING	NEW YORK
FORD	ANALYST	ACCOUNTING	NEW YORK
MILLER	CLERK	ACCOUNTING	NEW YORK
ALLEN	SALESMAN	RESEARCH	DALLAS
WARD	SALESMAN	RESEARCH	DALLAS
MARTIN	SALESMAN	RESEARCH	DALLAS
BLAKE	MANAGER	RESEARCH	DALLAS
TURNER	SALESMAN	RESEARCH	DALLAS
JAMES	CLERK	RESEARCH	DALLAS

ENAME	JOB	DNAME	LOC
SMITH	CLERK	RESEARCH	DALLAS
JONES	MANAGER	RESEARCH	DALLAS
CLARK	MANAGER	RESEARCH	DALLAS
SCOTT	ANALYST	RESEARCH	DALLAS
KING	PRESIDENT	RESEARCH	DALLAS
ADAMS	CLERK	RESEARCH	DALLAS
FORD	ANALYST	RESEARCH	DALLAS
MILLER	CLERK	RESEARCH	DALLAS
ALLEN	SALESMAN	SALES	CHICAGO
WARD	SALESMAN	SALES	CHICAGO
MARTIN	SALESMAN	SALES	CHICAGO
BLAKE	MANAGER	SALES	CHICAGO
TURNER	SALESMAN	SALES	CHICAGO
JAMES	CLERK	SALES	CHICAGO

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SMITH	CLERK	SALES	CHICAGO
JONES	MANAGER	SALES	CHICAGO
CLARK	MANAGER	SALES	CHICAGO

ENAME	JOB	DNAME	LOC
SCOTT	ANALYST	SALES	CHICAGO
KING	PRESIDENT	SALES	CHICAGO
ADAMS	CLERK	SALES	CHICAGO
FORD	ANALYST	SALES	CHICAGO
MILLER	CLERK	SALES	CHICAGO

56 rows selected.

```
SQL> SELECT
  2  Ename, Job,      --Project The Data Only From Emp Table, Which Are Non
Common Columns
  3  Dname, Loc,      --Project The Data Only From Dept Table, Which Are
Non Common Columns
  4  Deptno           --Projection Column Which is Common Between The Two
Tables By Name
  5  FROM Emp, Dept  --JOIN Principle
  6  /
Deptno               --Projection Column Which is Common Between The Two
Tables By Name
*
```

ERROR at line 4:  
ORA-00918: column ambiguously defined

```
SQL> SELECT
  2  Ename, Job,      --Project The Data Only From Emp Table, Which Are Non
Common Columns
  3  Dname, Loc,      --Project The Data Only From Dept Table, Which Are
Non Common Columns
  4  Dept.Deptno      --Projection Column Which is Common Between
The Two Tables By Name, Qualified With Dept Table
  5  FROM Emp, Dept  --JOIN Principle
  6  /
```

ENAME	JOB	DNAME	LOC	DEPTNO
ALLEN	SALESMAN	OPERATIONS	BOSTON	40
WARD	SALESMAN	OPERATIONS	BOSTON	40
MARTIN	SALESMAN	OPERATIONS	BOSTON	40
BLAKE	MANAGER	OPERATIONS	BOSTON	40
TURNER	SALESMAN	OPERATIONS	BOSTON	40
JAMES	CLERK	OPERATIONS	BOSTON	40
SMITH	CLERK	OPERATIONS	BOSTON	40
JONES	MANAGER	OPERATIONS	BOSTON	40
CLARK	MANAGER	OPERATIONS	BOSTON	40
SCOTT	ANALYST	OPERATIONS	BOSTON	40
KING	PRESIDENT	OPERATIONS	BOSTON	40

## Spool File For Oracle Students Trained By Mr. Balram

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ADAMS	CLERK	OPERATIONS	BOSTON	40
FORD	ANALYST	OPERATIONS	BOSTON	40
MILLER	CLERK	OPERATIONS	BOSTON	40
ALLEN	SALESMAN	ACCOUNTING	NEW YORK	10
WARD	SALESMAN	ACCOUNTING	NEW YORK	10
MARTIN	SALESMAN	ACCOUNTING	NEW YORK	10

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

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

ENAME	JOB	DNAME	LOC	DEPTNO
SCOTT	ANALYST	SALES	CHICAGO	30
KING	PRESIDENT	SALES	CHICAGO	30
ADAMS	CLERK	SALES	CHICAGO	30
FORD	ANALYST	SALES	CHICAGO	30

## Spool File For Oracle Students Trained By Mr. Balram

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MILLER      CLERK      SALES      CHICAGO      30

56 rows selected.

```
SQL> SELECT
  2  Ename, Job,    --Project The Data Only From Emp Table, Which Are Non
Common Columns
  3  Dname, Loc,    --Project The Data Only From Dept Table, Which Are
Non Common Columns
  4  Emp.Deptno        --Projection Column Which is Common Between The
Two Tables By Name, Qualified With Emp Table
  5  FROM Emp, Dept    --JOIN Principle
  6  /
```

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

  

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

## Spool File For Oracle Students Trained By Mr. Balram

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

ENAME	JOB	DNAME	LOC	DEPTNO
SCOTT	ANALYST	SALES	CHICAGO	20
KING	PRESIDENT	SALES	CHICAGO	10
ADAMS	CLERK	SALES	CHICAGO	20
FORD	ANALYST	SALES	CHICAGO	20
MILLER	CLERK	SALES	CHICAGO	10

56 rows selected.

```
SQL> SELECT Ename, Dname, Grade
2   FROM Emp, Dept, SalGrade --JOIN Principle
3   /
```

ENAME	DNAME	GRADE
ALLEN	OPERATIONS	1
WARD	OPERATIONS	1
MARTIN	OPERATIONS	1
BLAKE	OPERATIONS	1
TURNER	OPERATIONS	1
JAMES	OPERATIONS	1
SMITH	OPERATIONS	1
JONES	OPERATIONS	1
CLARK	OPERATIONS	1
SCOTT	OPERATIONS	1
KING	OPERATIONS	1
ADAMS	OPERATIONS	1
FORD	OPERATIONS	1
MILLER	OPERATIONS	1
ALLEN	OPERATIONS	2
WARD	OPERATIONS	2



## Spool File For Oracle Students Trained By Mr. Balram

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MARTIN	OPERATIONS	2
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ENAME	DNAME	GRADE
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BLAKE	OPERATIONS	2
TURNER	OPERATIONS	2
JAMES	OPERATIONS	2
SMITH	OPERATIONS	2
JONES	OPERATIONS	2
CLARK	OPERATIONS	2
SCOTT	OPERATIONS	2
KING	OPERATIONS	2
ADAMS	OPERATIONS	2
FORD	OPERATIONS	2
MILLER	OPERATIONS	2
ALLEN	OPERATIONS	3
WARD	OPERATIONS	3
MARTIN	OPERATIONS	3
BLAKE	OPERATIONS	3
TURNER	OPERATIONS	3
JAMES	OPERATIONS	3

ENAME	DNAME	GRADE
-------	-------	-------

SMITH	OPERATIONS	3
JONES	OPERATIONS	3
CLARK	OPERATIONS	3
SCOTT	OPERATIONS	3
KING	OPERATIONS	3
ADAMS	OPERATIONS	3
FORD	OPERATIONS	3
MILLER	OPERATIONS	3
ALLEN	OPERATIONS	4
WARD	OPERATIONS	4
MARTIN	OPERATIONS	4
BLAKE	OPERATIONS	4
TURNER	OPERATIONS	4
JAMES	OPERATIONS	4
SMITH	OPERATIONS	4
JONES	OPERATIONS	4
CLARK	OPERATIONS	4

ENAME	DNAME	GRADE
-------	-------	-------

SCOTT	OPERATIONS	4
KING	OPERATIONS	4
ADAMS	OPERATIONS	4
FORD	OPERATIONS	4
MILLER	OPERATIONS	4
ALLEN	OPERATIONS	5
WARD	OPERATIONS	5
MARTIN	OPERATIONS	5
BLAKE	OPERATIONS	5

## Spool File For Oracle Students Trained By Mr. Balram

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TURNER	OPERATIONS	5
JAMES	OPERATIONS	5
SMITH	OPERATIONS	5
JONES	OPERATIONS	5
CLARK	OPERATIONS	5
SCOTT	OPERATIONS	5
KING	OPERATIONS	5
ADAMS	OPERATIONS	5

ENAME	DNAME	GRADE
FORD	OPERATIONS	5
MILLER	OPERATIONS	5
ALLEN	ACCOUNTING	1
WARD	ACCOUNTING	1
MARTIN	ACCOUNTING	1
BLAKE	ACCOUNTING	1
TURNER	ACCOUNTING	1
JAMES	ACCOUNTING	1
SMITH	ACCOUNTING	1
JONES	ACCOUNTING	1
CLARK	ACCOUNTING	1
SCOTT	ACCOUNTING	1
KING	ACCOUNTING	1
ADAMS	ACCOUNTING	1
FORD	ACCOUNTING	1
MILLER	ACCOUNTING	1
ALLEN	ACCOUNTING	2

ENAME	DNAME	GRADE
WARD	ACCOUNTING	2
MARTIN	ACCOUNTING	2
BLAKE	ACCOUNTING	2
TURNER	ACCOUNTING	2
JAMES	ACCOUNTING	2
SMITH	ACCOUNTING	2
JONES	ACCOUNTING	2
CLARK	ACCOUNTING	2
SCOTT	ACCOUNTING	2
KING	ACCOUNTING	2
ADAMS	ACCOUNTING	2
FORD	ACCOUNTING	2
MILLER	ACCOUNTING	2
ALLEN	ACCOUNTING	3
WARD	ACCOUNTING	3
MARTIN	ACCOUNTING	3
BLAKE	ACCOUNTING	3

ENAME	DNAME	GRADE
TURNER	ACCOUNTING	3
JAMES	ACCOUNTING	3

## Spool File For Oracle Students Trained By Mr. Balram

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SMITH	ACCOUNTING	3
JONES	ACCOUNTING	3
CLARK	ACCOUNTING	3
SCOTT	ACCOUNTING	3
KING	ACCOUNTING	3
ADAMS	ACCOUNTING	3
FORD	ACCOUNTING	3
MILLER	ACCOUNTING	3
ALLEN	ACCOUNTING	4
WARD	ACCOUNTING	4
MARTIN	ACCOUNTING	4
BLAKE	ACCOUNTING	4
TURNER	ACCOUNTING	4
JAMES	ACCOUNTING	4
SMITH	ACCOUNTING	4

ENAME	DNAME	GRADE
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JONES	ACCOUNTING	4
CLARK	ACCOUNTING	4
SCOTT	ACCOUNTING	4
KING	ACCOUNTING	4
ADAMS	ACCOUNTING	4
FORD	ACCOUNTING	4
MILLER	ACCOUNTING	4
ALLEN	ACCOUNTING	5
WARD	ACCOUNTING	5
MARTIN	ACCOUNTING	5
BLAKE	ACCOUNTING	5
TURNER	ACCOUNTING	5
JAMES	ACCOUNTING	5
SMITH	ACCOUNTING	5
JONES	ACCOUNTING	5
CLARK	ACCOUNTING	5
SCOTT	ACCOUNTING	5

ENAME	DNAME	GRADE
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KING	ACCOUNTING	5
ADAMS	ACCOUNTING	5
FORD	ACCOUNTING	5
MILLER	ACCOUNTING	5
ALLEN	RESEARCH	1
WARD	RESEARCH	1
MARTIN	RESEARCH	1
BLAKE	RESEARCH	1
TURNER	RESEARCH	1
JAMES	RESEARCH	1
SMITH	RESEARCH	1
JONES	RESEARCH	1
CLARK	RESEARCH	1
SCOTT	RESEARCH	1
KING	RESEARCH	1

## Spool File For Oracle Students Trained By Mr. Balram

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ADAMS	RESEARCH	1
FORD	RESEARCH	1

ENAME	DNAME	GRADE
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MILLER	RESEARCH	1
ALLEN	RESEARCH	2
WARD	RESEARCH	2
MARTIN	RESEARCH	2
BLAKE	RESEARCH	2
TURNER	RESEARCH	2
JAMES	RESEARCH	2
SMITH	RESEARCH	2
JONES	RESEARCH	2
CLARK	RESEARCH	2
SCOTT	RESEARCH	2
KING	RESEARCH	2
ADAMS	RESEARCH	2
FORD	RESEARCH	2
MILLER	RESEARCH	2
ALLEN	RESEARCH	3
WARD	RESEARCH	3

ENAME	DNAME	GRADE
-------	-------	-------

MARTIN	RESEARCH	3
BLAKE	RESEARCH	3
TURNER	RESEARCH	3
JAMES	RESEARCH	3
SMITH	RESEARCH	3
JONES	RESEARCH	3
CLARK	RESEARCH	3
SCOTT	RESEARCH	3
KING	RESEARCH	3
ADAMS	RESEARCH	3
FORD	RESEARCH	3
MILLER	RESEARCH	3
ALLEN	RESEARCH	4
WARD	RESEARCH	4
MARTIN	RESEARCH	4
BLAKE	RESEARCH	4
TURNER	RESEARCH	4

ENAME	DNAME	GRADE
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JAMES	RESEARCH	4
SMITH	RESEARCH	4
JONES	RESEARCH	4
CLARK	RESEARCH	4
SCOTT	RESEARCH	4
KING	RESEARCH	4
ADAMS	RESEARCH	4
FORD	RESEARCH	4

## Spool File For Oracle Students Trained By Mr. Balram

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MILLER	RESEARCH	4
ALLEN	RESEARCH	5
WARD	RESEARCH	5
MARTIN	RESEARCH	5
BLAKE	RESEARCH	5
TURNER	RESEARCH	5
JAMES	RESEARCH	5
SMITH	RESEARCH	5
JONES	RESEARCH	5

ENAME	DNAME	GRADE
CLARK	RESEARCH	5
SCOTT	RESEARCH	5
KING	RESEARCH	5
ADAMS	RESEARCH	5
FORD	RESEARCH	5
MILLER	RESEARCH	5
ALLEN	SALES	1
WARD	SALES	1
MARTIN	SALES	1
BLAKE	SALES	1
TURNER	SALES	1
JAMES	SALES	1
SMITH	SALES	1
JONES	SALES	1
CLARK	SALES	1
SCOTT	SALES	1
KING	SALES	1

ENAME	DNAME	GRADE
ADAMS	SALES	1
FORD	SALES	1
MILLER	SALES	1
ALLEN	SALES	2
WARD	SALES	2
MARTIN	SALES	2
BLAKE	SALES	2
TURNER	SALES	2
JAMES	SALES	2
SMITH	SALES	2
JONES	SALES	2
CLARK	SALES	2
SCOTT	SALES	2
KING	SALES	2
ADAMS	SALES	2
FORD	SALES	2
MILLER	SALES	2

ENAME	DNAME	GRADE
ALLEN	SALES	3

## Spool File For Oracle Students Trained By Mr. Balram

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WARD	SALES	3
MARTIN	SALES	3
BLAKE	SALES	3
TURNER	SALES	3
JAMES	SALES	3
SMITH	SALES	3
JONES	SALES	3
CLARK	SALES	3
SCOTT	SALES	3
KING	SALES	3
ADAMS	SALES	3
FORD	SALES	3
MILLER	SALES	3
ALLEN	SALES	4
WARD	SALES	4
MARTIN	SALES	4

ENAME	DNAME	GRADE
BLAKE	SALES	4
TURNER	SALES	4
JAMES	SALES	4
SMITH	SALES	4
JONES	SALES	4
CLARK	SALES	4
SCOTT	SALES	4
KING	SALES	4
ADAMS	SALES	4
FORD	SALES	4
MILLER	SALES	4
ALLEN	SALES	5
WARD	SALES	5
MARTIN	SALES	5
BLAKE	SALES	5
TURNER	SALES	5
JAMES	SALES	5

ENAME	DNAME	GRADE
SMITH	SALES	5
JONES	SALES	5
CLARK	SALES	5
SCOTT	SALES	5
KING	SALES	5
ADAMS	SALES	5
FORD	SALES	5
MILLER	SALES	5

280 rows selected.

```
SQL> SELECT Ename, Dname
      2 FROM Emp, Dept --JOIN Principle
      3 WHERE Job = 'MANAGER' --Condition in A JOIN Query
```

## Spool File For Oracle Students Trained By Mr. Balram

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4 /

ENAME	DNAME
BLAKE	OPERATIONS
BLAKE	ACCOUNTING
BLAKE	RESEARCH
BLAKE	SALES
JONES	OPERATIONS
JONES	ACCOUNTING
JONES	RESEARCH
JONES	SALES
CLARK	OPERATIONS
CLARK	ACCOUNTING
CLARK	RESEARCH
CLARK	SALES

12 rows selected.

```
SQL> SELECT Ename, Job, Dname, Loc
  2  FROM Emp, Dept --JOIN Principle
  3  WHERE Emp.Deptno = Dept.Deptno --JOIN Condition
  4  /
```

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

14 rows selected.

```
SQL> SELECT Ename, Job, Dname, Loc
  2  FROM Emp, Dept --JOIN Principle
  3  WHERE Emp.Deptno = Dept.Deptno --JOIN Condition
  4  AND Emp.Job IN('MANAGER', 'CLERK', 'SALESMAN') --Extended Condition
01 To The JOIN Condition
  5  /
```

ENAME	JOB	DNAME	LOC
CLARK	MANAGER	ACCOUNTING	NEW YORK

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---

MILLER	CLERK	ACCOUNTING	NEW YORK
ADAMS	CLERK	RESEARCH	DALLAS
JONES	MANAGER	RESEARCH	DALLAS
SMITH	CLERK	RESEARCH	DALLAS
TURNER	SALESMAN	SALES	CHICAGO
BLAKE	MANAGER	SALES	CHICAGO
MARTIN	SALESMAN	SALES	CHICAGO
WARD	SALESMAN	SALES	CHICAGO
ALLEN	SALESMAN	SALES	CHICAGO
JAMES	CLERK	SALES	CHICAGO

11 rows selected.

```
SQL> SELECT Ename, Job, Dname, Loc
  2  FROM Emp, Dept --JOIN Principle
  3  WHERE Emp.Deptno = Dept.Deptno --JOIN Condition
  4  AND Emp.Job IN('MANAGER', 'CLERK', 'SALESMAN') --Extended Condition
01 To The JOIN Condition
  5  AND Emp.Sal BETWEEN 1100 AND 2850 --Extended Condition 02 To The
JOIN Condition
  6  /
```

ENAME	JOB	DNAME	LOC
CLARK	MANAGER	ACCOUNTING	NEW YORK
MILLER	CLERK	ACCOUNTING	NEW YORK
ADAMS	CLERK	RESEARCH	DALLAS
TURNER	SALESMAN	SALES	CHICAGO
MARTIN	SALESMAN	SALES	CHICAGO
WARD	SALESMAN	SALES	CHICAGO
ALLEN	SALESMAN	SALES	CHICAGO
BLAKE	MANAGER	SALES	CHICAGO

8 rows selected.

```
SQL> SELECT Ename, Job, Dname, Loc
  2  FROM Emp, Dept --JOIN Principle
  3  WHERE Emp.Deptno = Dept.Deptno --JOIN Condition
  4  AND Emp.Job IN('MANAGER', 'CLERK', 'SALESMAN') --Extended Condition
01 To The JOIN Condition
  5  AND Emp.Sal BETWEEN 1100 AND 2850 --Extended Condition 02 To The
JOIN Condition
  6  AND Dept.Dname IN('SALES', 'RESEARCH') --Extended Condition 03 To
The JOIN Condition
  7  /
```

ENAME	JOB	DNAME	LOC
ADAMS	CLERK	RESEARCH	DALLAS
TURNER	SALESMAN	SALES	CHICAGO
MARTIN	SALESMAN	SALES	CHICAGO
WARD	SALESMAN	SALES	CHICAGO
ALLEN	SALESMAN	SALES	CHICAGO



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---

BLAKE            MANAGER        SALES                    CHICAGO

6 rows selected.

```
SQL> SELECT  Ename, Job, Dname, Loc
  2  FROM Emp, Dept  --JOIN Principle
  3  WHERE Emp.Deptno = Dept.Deptno  --JOIN Condition
  4  /
```

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

14 rows selected.

```
SQL> SELECT
  2  Emp.Ename,
  3  Emp.Job,
  4  Dept.Dname,
  5  Dept.Loc
  6  FROM Emp, Dept  --JOIN Principle
  7  WHERE Emp.Deptno = Dept.Deptno  --JOIN Condition
  8  /
```

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

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---

14 rows selected.

```
SQL> SELECT
  2   Emp.Ename,
  3   Emp.Job,
  4   Emp.Deptno EmpDeptno,
  5   Dept.Deptno DeptDeptno,
  6   Dept.Dname,
  7   Dept.Loc
  8 FROM Emp, Dept  --JOIN Principle
  9 WHERE Emp.Deptno = Dept.Deptno  --JOIN Condition
10 /
```

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

14 rows selected.

```
SQL> --Table Aliases--
```

```
SQL> SELECT
  2   EMPNO,
  3   ENAME,
  4   EMP.DEPTNO,
  5   LOC
  6 FROM EMP E, DEPT D
  7 WHERE EMP.DEPTNO=DEPT.DEPTNO
  8 AND JOB=UPPER('MANAGER');
WHERE EMP.DEPTNO=DEPT.DEPTNO
      *
```

ERROR at line 7:

ORA-00904: "DEPT"."DEPTNO": invalid identifier

```
SQL> ED
```

Wrote file afiedt.buf

```
1  SELECT
2  E.EMPNO,
```

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```
3  E.ENAME,
4  E.DEPTNO,
5  D.LOC
6  FROM EMP E, DEPT D
7  WHERE E.DEPTNO=D.DEPTNO
8* AND E.JOB=UPPER('MANAGER')
SQL> /
```

EMPNO	ENAME	DEPTNO	LOC
7782	CLARK	10	NEW YORK
7566	JONES	20	DALLAS
7698	BLAKE	30	CHICAGO

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

```
1  SELECT
2  EMPNO,
3  ENAME,
4  Department.DEPTNO,
5  Department.LOC
6  FROM EMP Employees, DEPT Department
7  WHERE Employees.DEPTNO=Department.DEPTNO
8* AND JOB=UPPER('MANAGER')
SQL> /
```

EMPNO	ENAME	DEPTNO	LOC
7782	CLARK	10	NEW YORK
7566	JONES	20	DALLAS
7698	BLAKE	30	CHICAGO

```
SQL> SELECT
2  EMPNO,
3  ENAME,
4  SAL,
5  SAL * 12 ANNSAL,
6  EMP.DEPTNO,
7  LOC
8  FROM EMP,DEPT
9  WHERE EMP.DEPTNO=DEPT.DEPTNO;
```

EMPNO	ENAME	SAL	ANNSAL	DEPTNO	LOC
7839	KING	5000	60000	10	NEW YORK
7782	CLARK	2450	29400	10	NEW YORK
7934	MILLER	1300	15600	10	NEW YORK
7369	SMITH	800	9600	20	DALLAS
7902	FORD	3000	36000	20	DALLAS
7876	ADAMS	1100	13200	20	DALLAS
7788	SCOTT	3000	36000	20	DALLAS
7566	JONES	2975	35700	20	DALLAS

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---

7521	WARD	1250	15000	30	CHICAGO
7499	ALLEN	1600	19200	30	CHICAGO
7654	MARTIN	1250	15000	30	CHICAGO
7900	JAMES	950	11400	30	CHICAGO
7844	TURNER	1500	18000	30	CHICAGO
7698	BLAKE	2850	34200	30	CHICAGO

14 rows selected.

```
SQL> SELECT
  2  DEPT.DEPTNO,
  3  DNAME,
  4  LOC,
  5  SUM(SAL) SALSUM
  6  FROM EMP, DEPT
  7  WHERE EMP.DEPTNO=DEPT.DEPTNO
  8  GROUP BY DEPT.DEPTNO, DNAME, LOC;
```

DEPTNO	DNAME	LOC	SALSUM
20	RESEARCH	DALLAS	10875
10	ACCOUNTING	NEW YORK	8750
30	SALES	CHICAGO	9400

```
SQL> SELECT
  2  TO_CHAR(HIREDATE, 'YYYY') YEAR,
  3  DEPT.DEPTNO,
  4  DNAME,
  5  SUM(SAL) SALSUM
  6  FROM EMP, DEPT
  7  WHERE EMP.DEPTNO=DEPT.DEPTNO
  8  GROUP BY
  9  TO_CHAR(HIREDATE, 'YYYY'), DEPT.DEPTNO, DNAME
 10  ORDER BY YEAR;
```

YEAR	DEPTNO	DNAME	SALSUM
1980	20	RESEARCH	800
1981	10	ACCOUNTING	7450
1981	20	RESEARCH	5975
1981	30	SALES	9400
1982	10	ACCOUNTING	1300
1987	20	RESEARCH	4100

6 rows selected.

```
SQL> SELECT
  2  TO_CHAR(HIREDATE, 'YYYY') YEAR,
  3  DEPT.DEPTNO,
  4  DNAME,
  5  SUM(SAL)
  6  FROM EMP, DEPT
  7  WHERE EMP.DEPTNO=DEPT.DEPTNO
```

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---

```
8  GROUP BY TO_CHAR(HIREDATE, 'YYYY'), DEPT.DEPTNO, DNAME
9  HAVING COUNT(TO_CHAR(HIREDATE, 'YYYY')) > 2
10 ORDER BY YEAR;
```

YEAR	DEPTNO	DNAME	SUM(SAL)
1981	30	SALES	9400

```
SQL> SELECT
2  EMP.EMPNO,
3  E.ENAME,
4  D.DEPTNO,
5  D.DNAME
6  FROM EMP E, DEPT D
7  WHERE E.DEPTNO=D.DEPTNO;
EMP.EMPNO,
*
```

ERROR at line 2:  
ORA-00904: "EMP"."EMPNO": invalid identifier

```
SQL> SELECT
2  E.ENAME,
3  E.JOB,
4  D.DEPTNO,
5  D.DNAME,
6  D.LOC
7  FROM EMP E, DEPT D
8  WHERE E.DEPTNO=D.DEPTNO AND
9  E.JOB IN ('ANALYST', 'MANAGER');
```

ENAME	JOB	DEPTNO	DNAME	LOC
CLARK	MANAGER	10	ACCOUNTING	NEW YORK
JONES	MANAGER	20	RESEARCH	DALLAS
FORD	ANALYST	20	RESEARCH	DALLAS
SCOTT	ANALYST	20	RESEARCH	DALLAS
BLAKE	MANAGER	30	SALES	CHICAGO

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

```
1  SELECT
2  E.ENAME,
3  E.JOB,
4  D.DEPTNO,
5  D.DNAME,
6  D.LOC
7  FROM EMP E, DEPT D
8  WHERE E.DEPTNO=D.DEPTNO AND
9* D.Dname <> 'SALES'
SQL> /
```

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---

ENAME	JOB	DEPTNO	DNAME	LOC
KING	PRESIDENT	10	ACCOUNTING	NEW YORK
CLARK	MANAGER	10	ACCOUNTING	NEW YORK
MILLER	CLERK	10	ACCOUNTING	NEW YORK
SMITH	CLERK	20	RESEARCH	DALLAS
FORD	ANALYST	20	RESEARCH	DALLAS
ADAMS	CLERK	20	RESEARCH	DALLAS
SCOTT	ANALYST	20	RESEARCH	DALLAS
JONES	MANAGER	20	RESEARCH	DALLAS

8 rows selected.

SQL> --NON EQUI Joins--

```
SQL> SELECT Empno, Ename, Job, Sal
2 FROM Emp;
```

EMPNO	ENAME	JOB	SAL
7499	ALLEN	SALESMAN	1600
7521	WARD	SALESMAN	1250
7654	MARTIN	SALESMAN	1250
7698	BLAKE	MANAGER	2850
7844	TURNER	SALESMAN	1500
7900	JAMES	CLERK	950
7369	SMITH	CLERK	800
7566	JONES	MANAGER	2975
7782	CLARK	MANAGER	2450
7788	SCOTT	ANALYST	3000
7839	KING	PRESIDENT	5000
7876	ADAMS	CLERK	1100
7902	FORD	ANALYST	3000
7934	MILLER	CLERK	1300

14 rows selected.

SQL> SELECT \* FROM Salgrade;

GRADE	LOSAL	HISAL
1	700	1200
2	1201	1400
3	1401	2000
4	2001	3000
5	3001	9999

```
SQL> SELECT E.ENAME, E.SAL, S.GRADE
2 FROM EMP E, SALGRADE S
3 WHERE E.SAL BETWEEN S.LOSAL AND S.HISAL;
```

ENAME	SAL	GRADE
SMITH	800	1

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---

JAMES	950	1
ADAMS	1100	1
MARTIN	1250	2
WARD	1250	2
MILLER	1300	2
TURNER	1500	3
ALLEN	1600	3
CLARK	2450	4
BLAKE	2850	4
JONES	2975	4
SCOTT	3000	4
FORD	3000	4
KING	5000	5

14 rows selected.

```
SQL> SELECT E.ENAME,E.SAL,S.GRADE
2  FROM EMP E,SALGRADE S
3  WHERE (E.SAL >= S.LOSAL AND E.SAL <=S.HISAL);
```

ENAME	SAL	GRADE
SMITH	800	1
JAMES	950	1
ADAMS	1100	1
MARTIN	1250	2
WARD	1250	2
MILLER	1300	2
TURNER	1500	3
ALLEN	1600	3
CLARK	2450	4
BLAKE	2850	4
JONES	2975	4
SCOTT	3000	4
FORD	3000	4
KING	5000	5

14 rows selected.

```
SQL> SELECT E.ENAME,E.SAL,S.GRADE
2  FROM EMP E,SALGRADE S
3  WHERE (E.SAL >= S.LOSAL AND E.SAL <=S.HISAL) AND
4  S.GRADE IN(1,2,3);
```

ENAME	SAL	GRADE
SMITH	800	1
JAMES	950	1
ADAMS	1100	1
MARTIN	1250	2
WARD	1250	2
MILLER	1300	2
TURNER	1500	3

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---

ALLEN                      1600                      3

8 rows selected.

```
SQL> SELECT E.ENAME,E.SAL,E.JOB,S.GRADE
  2   FROM EMP E,SALGRADE S
  3   WHERE (E.SAL >= S.LOSAL AND E.SAL <=S.HISAL) AND
  4   S.GRADE IN(1,2,3) AND
  5   E.JOB IN('SALESMAN','CLERK');
```

ENAME	SAL	JOB	GRADE
SMITH	800	CLERK	1
JAMES	950	CLERK	1
ADAMS	1100	CLERK	1
WARD	1250	SALESMAN	2
MARTIN	1250	SALESMAN	2
MILLER	1300	CLERK	2
TURNER	1500	SALESMAN	3
ALLEN	1600	SALESMAN	3

8 rows selected.

```
SQL> SPOOL OFF
```