SQL> cl scr

SQL> SET VERIFY OFF

SQL> cl scr

SQL> COLUMN Empno FORMAT 9999

SQL> COLUMN Sal FORMAT 9999

SQL> COLUMN Comm FORMAT 9999

SQL> COLUMN MGR FORMAT 9999

SQL> COLUMN Deptno FORMAT 99

SQL> cl scr

SQL> SELECT \* FROM Emp;

<b>EMPNO</b>	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000		10
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20
<b>EMPNO</b>	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

13 rows selected.

SQL> ROLLBACK;

Rollback complete.

SQL> SELECT \* FROM Emp;

<b>EMPNO</b>	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000		10
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20

<b>EMPNO</b>	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

#### 13 rows selected.

SQL> SELECT Ename, Deptno, Job, Sal

- 2 FROM Emp
- 3 WHERE Deptno = 30;

ENAME	DEPTNO	JOB	SAL
BLAKE	30	MANAGER	2850
ALLEN	30	SALESMAN	1600
TURNER	30	SALESMAN	1500
JAMES	30	CLERK	950
WARD	30	SALESMAN	1250

SQL> cl scr

SQL> SELECT \* FROm Emp;

<b>EMPNO</b>	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000		10
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20
<b>EMPNO</b>	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

#### 13 rows selected.

SQL> INSERT INTO Emp(Empno, Ename, Job, MGR, HireDate, Sal, Comm, Deptno)

2 VALUES(1234, 'SAMPLE01', 'CLERK', 7566, SYSDATE, 2500, NULL, 30);

### 1 row created.

#### SQL> BEGIN

- 2 INSERT INTO Emp(Empno, Ename, Job, MGR, HireDate, Sal, Comm, Deptno)
  - 3 VALUES(1235, 'SAMPLE02', 'CLERK', 7566, SYSDATE, 2500, NULL, 30);
  - 4 END:

```
5 /
PL/SQL procedure successfully completed.
SQL> DECLARE
  2 V_Empno Emp.Empno%TYPE := &GEmpno;
  3 V Ename Emp.Ename%TYPE := '&GEname';
  4 V Sal Emp.Sal%TYPE := &GSal;
  5  V_Comm Emp.Comm%TYPE := &GComm;
  6 V_Deptno Emp.Deptno%TYPE := &GDeptno;
    V MGR Emp.MGR%TYPE := &GMGR;
 8 V_Job Emp.Job%TYPE := '&GJob';
 9 V_HireDate Emp.HireDate%TYPE := '&GHireDate';
 11 INSERT INTO Emp(Empno, Ename, Job, MGR, HireDate, Sal, Comm,
Deptno)
12 VALUES(V_Empno, V_Ename, V_Job, V_MGR,V_HireDate, V_Sal, V_Comm,
V Deptno);
13 IF SQL%FOUND THEN
14 DBMS_OUTPUT.PUT_LINE(SQL%ROWCOUNT||  Record Inserted
Successfully...');
15 DBMS_OUTPUT.PUT_LINE('The Record Inserted is...');
16 DBMS_OUTPUT.PUT_LINE(V_Empno, V_Ename, V_Job, V_MGR,V_HireDate,
V_Sal, V_Comm, V_Deptno
17
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V_Empno Emp.Empno%TYPE := &GEmpno;
    V Ename Emp.Ename%TYPE := '&GEname';
  4 V_Sal Emp.Sal%TYPE := &GSal;
  5 V_Comm Emp.Comm%TYPE := &GComm;
  6 V_Deptno Emp.Deptno%TYPE := &GDeptno;
  7 V_MGR Emp.MGR%TYPE := &GMGR;
 8 V_Job Emp.Job%TYPE := '&GJob';
 9 V_HireDate Emp.HireDate%TYPE := '&GHireDate';
 10 BEGIN
11 INSERT INTO Emp(Empno, Ename, Job, MGR, HireDate, Sal, Comm,
Deptno)
 12 VALUES(V Empno, V Ename, V Job, V MGR, V HireDate, V Sal, V Comm,
V Deptno);
13 IF SQL%FOUND THEN
 Successfully...');
 15 DBMS_OUTPUT.PUT_LINE('The Record Inserted is...');
16 DBMS_OUTPUT.PUT_LINE(V_Empno||', '||V_Ename||', '||V_Job||',
'||V_MGR||', '||V_HireDate||', '||V_Sal||', '||V_Comm||', '||V_Deptno);
17 ELSE
18 DBMS_OUTPUT.PUT_LINE('Problem in Inserting The Record Contact The
Administrator...');
 19 END IF;
 20* END;
SQL> /
Enter value for gempno: 1235
```

```
Enter value for gename: SAMPLE03
Enter value for gsal: 2000
Enter value for gcomm: NULL
Enter value for gdeptno: 30
Enter value for gmgr: 7566
Enter value for gjob: CLERK
Enter value for ghiredate: 06-JUL-10
DECLARE
ERROR at line 1:
ORA-00001: unique constraint (SCOTT.EMP PRIMARY KEY) violated
ORA-06512: at line 11
SQL> /
Enter value for gempno: 1240
Enter value for gename: SAMPLE05
Enter value for gsal: 2000
Enter value for gcomm: NULL
Enter value for gdeptno: 30
Enter value for gmgr: 7566
Enter value for gjob: CLERK
Enter value for ghiredate: 06-JUL-10
1 Record Inserted Successfully...
The Record Inserted is...
1240, SAMPLE05, CLERK, 7566, 06-JUL-10, 2000, , 30
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> SELECT * FROM Emp;
EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO
---- ----- ----- -----

        7839 KING
        PRESIDENT
        17-NOV-81
        5000
        10

        7698 BLAKE
        MANAGER
        7839
        01-MAY-81
        2850
        30

        7782 CLARK
        MANAGER
        7839
        09-JUN-81
        2450
        10

        7566 JONES
        MANAGER
        7839
        02-APR-81
        2975
        20

        7499 ALLEN
        SALESMAN
        7698
        20-FEB-81
        1600
        300
        30

        7844 TURNER
        SALESMAN
        7698
        08-SEP-81
        1500
        0
        30

        7900 JAMES
        CLERK
        7698
        03-DEC-81
        950
        30

        7521 WARD
        SALESMAN
        7698
        22-FEB-81
        1250
        500
        30

        7902 FORD
        ANALYST
        7566
        03-DEC-81
        3000
        20

        7369 SMITH
        CLERK
        7902
        17-DEC-80
        800
        20

        7788 SCOTT
        ANALYST
        7566
        09-DEC-82
        3000
        20

EMPNO ENAME JOB
                                                     MGR HIREDATE SAL COMM DEPTNO
7876 ADAMS CLERK 7788 12-JAN-83 1100
7934 MILLER CLERK 7782 23-JAN-82 1300
1234 SAMPLE01 CLERK 7566 06-JUL-10 2500
1235 SAMPLE02 CLERK 7566 06-JUL-10 2500
1240 SAMPLE05 CLERK 7566 06-JUL-10 2000
                                                                                                                  10
                                                                                                                  30
                                                                                                                  30
```

```
16 rows selected.
SQL> DELETE FROM Emp
   2 WHERE Empno = 1234;
1 row deleted.
SQL> BEGIN DELETE FROM Emp
   2 WHERE Empno = 1234
   4
SQL> BEGIN
   2 DELETE FROM Emp
   3 WHERE Empno = 1235;
   4 END;
PL/SQL procedure successfully completed.
SQL> DECLARE
   2 V Empno Emp.Empno%TYPE := &GEmpno;
   3 BEGIN
   4 DELETE FROM Emp
   5 WHERE Empno = V_Empno;
   6 IF SQL%FOUND THEN
   7 DBMS_OUTPUT.PUT_LINE(SQL%ROWCOUNT||' Row(s) Deleted
Successfully');
   8 ELSE
  9 DBMS_OUTPUT.PUT_LINE(SQL%ROWCOUNT||' Row(s) Deleted...');
 10 END IF;
 11 END;
 12 /
Enter value for gempno: 1240
1 Row(s) Deleted Successfully
PL/SQL procedure successfully completed.
SQL> /
Enter value for gempno: 2234
0 Row(s) Deleted...
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> SELECT * FROM Emp;
EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

      7839 KING
      PRESIDENT
      17-NOV-81
      5000
      10

      7698 BLAKE
      MANAGER
      7839
      01-MAY-81
      2850
      30

      7782 CLARK
      MANAGER
      7839
      09-JUN-81
      2450
      10

      7566 JONES
      MANAGER
      7839
      02-APR-81
      2975
      20

      7499 ALLEN
      SALESMAN
      7698
      20-FEB-81
      1600
      300
      30

      7844 TURNER
      SALESMAN
      7698
      08-SEP-81
      1500
      0
      30
```

```
      7900 JAMES
      CLERK
      7698 03-DEC-81 950 30

      7521 WARD
      SALESMAN 7698 22-FEB-81 1250 500 30

      7902 FORD
      ANALYST 7566 03-DEC-81 3000 20

      7369 SMITH
      CLERK 7902 17-DEC-80 800 20

      7788 SCOTT
      ANALYST 7566 09-DEC-82 3000 20

EMPNO ENAME JOB
                                 MGR HIREDATE SAL COMM DEPTNO
7876 ADAMS CLERK 7788 12-JAN-83 1100 20
7934 MILLER CLERK 7782 23-JAN-82 1300 10
13 rows selected.
SQL> UPDATE Emp
 2 SET Sal = Sal + 1000
  3 WHERE Empno = 7934;
1 row updated.
SQL> BEGIN
  2 UPDATE Emp
  3 SET Sal = Sal + 1000
  4 WHERE Empno = 7934;
  5 END;
  6 /
PL/SQL procedure successfully completed.
SOL> DECLARE
  2 V_Empno Emp.Empno%TYPE := &GEmpno;
  3 BEGIN
  4 UPDATE Emp
  5 SET Sal = Sal + 1000
  6 WHERE Empno = V_Empno;
  7 IF SQL%FOUND THEN
  8 DBMS_OUTPUT.PUT_LINE(SQL%ROWCOUNT||' Row(s) Updated
Successfully...');
  9 ELSE
 10 DBMS OUTPUT.PUT LINE(SQL%ROWCOUNT | ' Row(s) Updated);
 11 END IF;
 12 END;
 13 /
Enter value for gempno: 7934
ORA-01756: quoted string not properly terminated
SOL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V_Empno Emp.Empno%TYPE := &GEmpno;
  3 BEGIN
  4 UPDATE Emp
  5 SET Sal = Sal + 1000
```

```
6 WHERE Empno = V_Empno;
  7 IF SQL%FOUND THEN
  8 DBMS OUTPUT.PUT_LINE(SQL%ROWCOUNT||' Row(s) Updated
Successfully...');
  9 ELSE
 10 DBMS_OUTPUT.PUT_LINE(SQL%ROWCOUNT||' Row(s) Updated');
 11 END IF;
 12* END;
SQL> /
Enter value for gempno: 7934
1 Row(s) Updated Successfully...
PL/SQL procedure successfully completed.
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V_Empno Emp.Empno%TYPE := &GEmpno;
  3 BEGIN
  4 UPDATE Emp
  5 SET Sal = Sal + 1000
  6 WHERE Empno = V_Empno;
    IF SQL%FOUND THEN
  8 DBMS_OUTPUT.PUT_LINE(SQL%ROWCOUNT||' Row(s) Updated
Successfully...');
  9 ELSE
 10 DBMS OUTPUT.PUT LINE(SQL%ROWCOUNT | | ' Row(s) Updated');
 11 END IF;
 12* END;
SQL> /
Enter value for gempno: 2234
0 Row(s) Updated
PL/SQL procedure successfully completed.
SQL> SPOOL OFF
SQL> cl scr
SQL> SET SERVEROUTPUT ON
SQL> SET VERIFY OFF
SOL> cl scr
SQL> DECLARE
  2 V_Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE(V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 DBMS_OUTPUT.PUT_LINE(V_Ename||'''s Salary is $ '||V_Sal);
        Document Generated By SkyEss Techno Solutions Pvt. Ltd.
```

```
13 CLOSE MyCursor;
 14 END;
 15 /
KING's Salary is $ 5000
BLAKE's Salary is $ 2850
PL/SQL procedure successfully completed.
SQL> cl scr
SOL> DECLARE
  2 V_Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
 8 OPEN MyCursor;
 9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
13 FETCH MyCursor INTO V_Ename, V_Sal;
14 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
15 FETCH MyCursor INTO V Ename, V Sal;
16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 17 FETCH MyCursor INTO V_Ename, V_Sal;
18 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 19 FETCH MyCursor INTO V_Ename, V_Sal;
 20 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 21 FETCH MyCursor INTO V_Ename, V_Sal;
22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 23 FETCH MyCursor INTO V_Ename, V_Sal;
 24 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
 25 FETCH MyCursor INTO V_Ename, V_Sal;
 26 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 27 FETCH MyCursor INTO V_Ename, V_Sal;
 28 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 29 FETCH MyCursor INTO V_Ename, V_Sal;
 30 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V_Ename, V_Sal;
 32 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 33 FETCH MyCursor INTO V_Ename, V_Sal;
```

```
34 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 35 FETCH MyCursor INTO V_Ename, V_Sal;
 36 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 37 CLOSE MyCursor;
 38 END;
 39 /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7 : TURNER's Salary is $ 1500
Row Number 8 : JAMES's Salary is $ 950
Row Number 9 : WARD's Salary is $ 1250
Row Number 10 : FORD's Salary is $ 3000
Row Number 11 : SMITH's Salary is $ 800
Row Number 12 : SCOTT's Salary is $ 3000
Row Number 13 : ADAMS's Salary is $ 1100
Row Number 14: MILLER's Salary is $ 1300
PL/SQL procedure successfully completed.
SOL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V Ename EMP.ENAME%TYPE;
  3 V Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 FETCH MyCursor INTO V Ename, V Sal;
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 FETCH MyCursor INTO V Ename, V Sal;
 13 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
 14 FETCH MyCursor INTO V_Ename, V_Sal;
 15 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 16 FETCH MyCursor INTO V_Ename, V_Sal;
 17 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V Ename||'''s Salary is $ '||V Sal);
 18 FETCH MyCursor INTO V_Ename, V_Sal;
 19 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 20 FETCH MyCursor INTO V_Ename, V_Sal;
 21 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 22 FETCH MyCursor INTO V_Ename, V_Sal;
```

```
23 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 24 FETCH MyCursor INTO V_Ename, V_Sal;
 25 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 26 FETCH MyCursor INTO V_Ename, V_Sal;
 27 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 28 FETCH MyCursor INTO V_Ename, V_Sal;
 29 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 30 FETCH MyCursor INTO V_Ename, V_Sal;
 31 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 32 FETCH MyCursor INTO V_Ename, V_Sal;
 33 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 34 CLOSE MyCursor;
 35* END;
SQL> /
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7 : TURNER's Salary is $ 1500 Row Number 8 : JAMES's Salary is $ 950
Row Number 9 : WARD's Salary is $ 1250
Row Number 10 : FORD's Salary is $ 3000
Row Number 11: SMITH's Salary is $ 800
Row Number 12 : SCOTT's Salary is $ 3000
Row Number 13 : ADAMS's Salary is $ 1100
Row Number 14: MILLER's Salary is $ 1300
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
  2 V Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V Ename, V Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 13 FETCH MyCursor INTO V_Ename, V_Sal;
 14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 15 FETCH MyCursor INTO V_Ename, V_Sal;
```

```
16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 17 FETCH MyCursor INTO V_Ename, V_Sal;
18 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 19 FETCH MyCursor INTO V_Ename, V_Sal;
 20 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 21 FETCH MyCursor INTO V_Ename, V_Sal;
 22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 23 FETCH MyCursor INTO V_Ename, V_Sal;
 24 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 25 FETCH MyCursor INTO V_Ename, V_Sal;
 26 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 27 FETCH MyCursor INTO V_Ename, V_Sal;
 28 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 29 FETCH MyCursor INTO V Ename, V Sal;
 30 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V_Ename, V_Sal;
 32 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 33 FETCH MyCursor INTO V_Ename, V_Sal;
 34 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 35 FETCH MyCursor INTO V_Ename, V_Sal;
 36 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 37 FETCH MyCursor INTO V_Ename, V_Sal;
 38 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 39 FETCH MyCursor INTO V_Ename, V_Sal;
 40 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V Ename||'''s Salary is $ '||V Sal);
 41 CLOSE MyCursor;
 42 END;
 43 /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7 : TURNER's Salary is $ 1500
Row Number 8 : JAMES's Salary is $ 950
Row Number 9 : WARD's Salary is $ 1250
Row Number 10 : FORD's Salary is $ 3000
Row Number 11 : SMITH's Salary is $ 800
Row Number 12 : SCOTT's Salary is $ 3000
Row Number 13 : ADAMS's Salary is $ 1100
Row Number 14: MILLER's Salary is $ 1300
```

```
Row Number 14: MILLER's Salary is $ 1300
Row Number 14 : MILLER's Salary is $ 1300
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
 2 V_Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
 4 CURSOR MyCursor IS
 5 SELECT Ename, Sal
 6 FROM EMP;
 7 BEGIN
 8 -- OPEN MyCursor;
 9 FETCH MyCursor INTO V_Ename, V_Sal;
10 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
11 FETCH MyCursor INTO V_Ename, V_Sal;
12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
13 FETCH MyCursor INTO V_Ename, V_Sal;
14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
15 FETCH MyCursor INTO V_Ename, V_Sal;
16 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
17 FETCH MyCursor INTO V Ename, V Sal;
18 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
19 FETCH MyCursor INTO V_Ename, V_Sal;
20 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
21 FETCH MyCursor INTO V_Ename, V_Sal;
22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
23 FETCH MyCursor INTO V_Ename, V_Sal;
24 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
25 FETCH MyCursor INTO V_Ename, V_Sal;
26 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
27 FETCH MyCursor INTO V_Ename, V_Sal;
28 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
29 FETCH MyCursor INTO V_Ename, V_Sal;
30 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
31 FETCH MyCursor INTO V_Ename, V_Sal;
32 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
33 FETCH MyCursor INTO V_Ename, V_Sal;
34 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
35 FETCH MyCursor INTO V_Ename, V_Sal;
```

```
36 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
37 FETCH MyCursor INTO V_Ename, V_Sal;
38 DBMS_OUTPUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 39 FETCH MyCursor INTO V_Ename, V_Sal;
 40 DBMS_OUTPUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 41 CLOSE MyCursor;
 42 END;
 43
DECLARE
ERROR at line 1:
ORA-01001: invalid cursor
ORA-06512: at line 9
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V_Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
 7 BEGIN
 8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 13 FETCH MyCursor INTO V_Ename, V_Sal;
 14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
15 FETCH MyCursor INTO V_Ename, V_Sal;
16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V Ename||'''s Salary is $ '||V Sal);
17 FETCH MyCursor INTO V_Ename, V_Sal;
18 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 19 FETCH MyCursor INTO V_Ename, V_Sal;
 20 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
21 FETCH MyCursor INTO V Ename, V Sal;
 22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 23 FETCH MyCursor INTO V_Ename, V_Sal;
 24 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 25 FETCH MyCursor INTO V_Ename, V_Sal;
```

```
26 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 FETCH MyCursor INTO V_Ename, V_Sal;
BBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 29 FETCH MyCursor INTO V_Ename, V_Sal;
 30 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V_Ename, V_Sal;
 32 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 33 FETCH MyCursor INTO V_Ename, V_Sal;
 34 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 35 FETCH MyCursor INTO V_Ename, V_Sal;
 36 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ::
'||V_Ename||'''s Salary is $ '||V_Sal);
 37 FETCH MyCursor INTO V_Ename, V_Sal;
 38 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 39 FETCH MyCursor INTO V_Ename, V_Sal;
 40 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 41 CLOSE MyCursor;
 42* END;
SQL> /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7 : TURNER's Salary is $ 1500
Row Number 8 : JAMES's Salary is $ 950
Row Number 9 : WARD's Salary is $ 1250
Row Number 10 : FORD's Salary is $ 3000
Row Number 11 : SMITH's Salary is $ 800
Row Number 12 : SCOTT's Salary is $ 3000
Row Number 13 : ADAMS's Salary is $ 1100
Row Number 14: MILLER's Salary is $ 1300
Row Number 14: MILLER's Salary is $ 1300
Row Number 14: MILLER's Salary is $ 1300
PL/SQL procedure successfully completed.
SOL> cl scr
SOL> DECLARE
  2 V Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
```

```
9 FETCH MyCursor INTO V_Ename, V_Sal;
10 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V Ename||'''s Salary is $ '||V_Sal);
11 FETCH MyCursor INTO V_Ename, V_Sal;
12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
13 FETCH MyCursor INTO V_Ename, V_Sal;
14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
15 FETCH MyCursor INTO V Ename, V Sal;
16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
17 FETCH MyCursor INTO V_Ename, V_Sal;
18 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
19 FETCH MyCursor INTO V_Ename, V_Sal;
20 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 21 FETCH MyCursor INTO V_Ename, V_Sal;
 22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
23 FETCH MyCursor INTO V_Ename, V_Sal;
24 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
25 FETCH MyCursor INTO V_Ename, V_Sal;
26 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
27 FETCH MyCursor INTO V Ename, V Sal;
28 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
29 FETCH MyCursor INTO V_Ename, V_Sal;
30 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V_Ename, V_Sal;
32 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
33 CLOSE MyCursor;
 34 FETCH MyCursor INTO V Ename, V Sal;
 35 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
36 FETCH MyCursor INTO V Ename, V Sal;
37 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
38 FETCH MyCursor INTO V_Ename, V_Sal;
39 DBMS_OUTPUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 40 FETCH MyCursor INTO V_Ename, V_Sal;
41 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
42 CLOSE MyCursor;
43 END;
44
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
```

```
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7 : TURNER's Salary is $ 1500
Row Number 8 : JAMES's Salary is $ 950
Row Number 9 : WARD's Salary is $ 1250
Row Number 10 : FORD's Salary is $ 3000
Row Number 11 : SMITH's Salary is $ 800
Row Number 12: SCOTT's Salary is $ 3000
DECLARE
ERROR at line 1:
ORA-01001: invalid cursor
ORA-06512: at line 34
SQL> DECLARE
  2 V_Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V Ename, V Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 13 FETCH MyCursor INTO V_Ename, V_Sal;
 14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 15 FETCH MyCursor INTO V_Ename, V_Sal;
 16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 17 OPEN MyCursor;
 18 FETCH MyCursor INTO V_Ename, V_Sal;
 19 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
 20 FETCH MyCursor INTO V Ename, V Sal;
 21 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
 22 FETCH MyCursor INTO V_Ename, V_Sal;
23 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 24 FETCH MyCursor INTO V_Ename, V_Sal;
 25 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 26 FETCH MyCursor INTO V_Ename, V_Sal;
 27 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 28 FETCH MyCursor INTO V_Ename, V_Sal;
 29 DBMS_OUTPUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
```

```
30 FETCH MyCursor INTO V_Ename, V_Sal;
 31 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 32 FETCH MyCursor INTO V_Ename, V_Sal;
 33 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 34 CLOSE MyCursor;
 35 FETCH MyCursor INTO V_Ename, V_Sal;
 36 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 37 FETCH MyCursor INTO V_Ename, V_Sal;
 38 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 39 FETCH MyCursor INTO V_Ename, V_Sal;
 40 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ::
'||V_Ename||'''s Salary is $ '||V_Sal);
 41 FETCH MyCursor INTO V_Ename, V_Sal;
 42 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 43 CLOSE MyCursor;
 44 END;
 45 /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
DECLARE
ERROR at line 1:
ORA-06511: PL/SQL: cursor already open
ORA-06512: at line 5
ORA-06512: at line 17
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V Ename EMP.ENAME%TYPE;
  3 V Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V Ename||'''s Salary is $ '||V Sal);
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 13 FETCH MyCursor INTO V_Ename, V_Sal;
 14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 15 FETCH MyCursor INTO V_Ename, V_Sal;
```

```
16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 17 CLOSE MyCursor;
 18 OPEN MyCursor;
 19 FETCH MyCursor INTO V_Ename, V_Sal;
 20 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 21 FETCH MyCursor INTO V_Ename, V_Sal;
 22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 23 FETCH MyCursor INTO V_Ename, V_Sal;
 24 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 25 FETCH MyCursor INTO V_Ename, V_Sal;
 26 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 27 FETCH MyCursor INTO V_Ename, V_Sal;
 28 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 29 FETCH MyCursor INTO V_Ename, V_Sal;
 30 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V_Ename, V_Sal;
 32 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 33 FETCH MyCursor INTO V_Ename, V_Sal;
 34 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V Ename||'''s Salary is $ '||V Sal);
 35 CLOSE MyCursor;
 36 FETCH MyCursor INTO V_Ename, V_Sal;
 37 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 38 FETCH MyCursor INTO V_Ename, V_Sal;
 39 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 40 FETCH MyCursor INTO V_Ename, V_Sal;
 41 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V Ename||'''s Salary is $ '||V Sal);
 42 FETCH MyCursor INTO V_Ename, V_Sal;
 43 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V Ename||'''s Salary is $ '||V Sal);
 44 CLOSE MyCursor;
 45* END;
SQL> /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7: TURNER's Salary is $ 1500
```

```
Row Number 8 : JAMES's Salary is $ 950
DECLARE
ERROR at line 1:
ORA-01001: invalid cursor
ORA-06512: at line 36
SOL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V_Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
 7 BEGIN
 8 OPEN MyCursor;
 9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS OUTPUT.PUT LINE('Row Number '| MyCursor%ROWCOUNT | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 13 FETCH MyCursor INTO V_Ename, V_Sal;
 14 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
15 FETCH MyCursor INTO V_Ename, V_Sal;
 16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 17 CLOSE MyCursor;
 18 OPEN MyCursor;
 19 FETCH MyCursor INTO V_Ename, V_Sal;
 20 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 21 FETCH MyCursor INTO V_Ename, V_Sal;
22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 23 FETCH MyCursor INTO V_Ename, V_Sal;
 24 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | :
'||V_Ename||'''s Salary is $ '||V_Sal);
 25 FETCH MyCursor INTO V_Ename, V_Sal;
 26 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 27 FETCH MyCursor INTO V_Ename, V_Sal;
 28 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V Ename||'''s Salary is $ '||V Sal);
 29 FETCH MyCursor INTO V_Ename, V_Sal;
 30 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V_Ename, V_Sal;
 32 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 33 FETCH MyCursor INTO V_Ename, V_Sal;
```

```
34 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 35 CLOSE MyCursor;
 36 OPEN MyCursor;
 37 FETCH MyCursor INTO V_Ename, V_Sal;
 38 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 39 FETCH MyCursor INTO V Ename, V Sal;
 40 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 41 FETCH MyCursor INTO V_Ename, V_Sal;
 42 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 43 FETCH MyCursor INTO V_Ename, V_Sal;
 44 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 45 CLOSE MyCursor;
 46* END;
SQL> /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7 : TURNER's Salary is $ 1500
Row Number 8 : JAMES's Salary is $ 950
Row Number 1 : KING's Salary is $ 5000
Row Number 2: BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4: JONES's Salary is $ 2975
PL/SQL procedure successfully completed.
SOL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V_Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
```

```
13 FETCH MyCursor INTO V_Ename, V_Sal;
 14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 15 FETCH MyCursor INTO V_Ename, V_Sal;
 16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 17 CLOSE MyCursor;
 18 OPEN MyCursor;
 19 FETCH MyCursor INTO V_Ename, V_Sal;
 20 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 21 FETCH MyCursor INTO V_Ename, V_Sal;
 22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 23 FETCH MyCursor INTO V_Ename, V_Sal;
 24 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 25 FETCH MyCursor INTO V_Ename, V_Sal;
 26 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 27 FETCH MyCursor INTO V Ename, V Sal;
 28 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 29 FETCH MyCursor INTO V_Ename, V_Sal;
 30 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V_Ename, V_Sal;
 32 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 33 FETCH MyCursor INTO V_Ename, V_Sal;
 34 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 35 CLOSE MyCursor;
 36 OPEN MyCursor;
 37 FETCH MyCursor INTO V_Ename, V_Sal;
 38 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 39 FETCH MyCursor INTO V_Ename, V_Sal;
 40 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT| | ':
'||V_Ename||'''s Salary is $ '||V_Sal);
 41 FETCH MyCursor INTO V Ename, V Sal;
 42 DBMS OUTPUT.PUT LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 43 FETCH MyCursor INTO V_Ename, V_Sal;
 44 DBMS_OUTPUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 45 CLOSE MyCursor;
 46 CLOSE MyCursor;
 47* END;
SQL> /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 1 : KING's Salary is $ 5000
```

```
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7: TURNER's Salary is $ 1500
Row Number 8 : JAMES's Salary is $ 950
Row Number 1: KING's Salary is $ 5000
Row Number 2: BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4: JONES's Salary is $ 2975
DECLARE
ERROR at line 1:
ORA-01001: invalid cursor
ORA-06512: at line 46
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V Ename EMP.ENAME%TYPE;
  3 V_Sal EMP.SAL%TYPE;
  4 CURSOR MyCursor IS
  5 SELECT Ename, Sal
  6 FROM EMP;
  7 BEGIN
  8 OPEN MyCursor;
  9 FETCH MyCursor INTO V_Ename, V_Sal;
 10 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 11 FETCH MyCursor INTO V_Ename, V_Sal;
 12 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 13 FETCH MyCursor INTO V_Ename, V_Sal;
 14 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V Ename||'''s Salary is $ '||V Sal);
 15 FETCH MyCursor INTO V_Ename, V_Sal;
 16 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 17 CLOSE MyCursor;
 18 OPEN MyCursor;
 19 FETCH MyCursor INTO V_Ename, V_Sal;
 20 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 21 FETCH MyCursor INTO V_Ename, V_Sal;
 22 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 23 FETCH MyCursor INTO V_Ename, V_Sal;
 24 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 25 FETCH MyCursor INTO V_Ename, V_Sal;
 26 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ' :
'||V_Ename||'''s Salary is $ '||V_Sal);
```

```
27 FETCH MyCursor INTO V_Ename, V_Sal;
 28 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||' :
'||V_Ename||'''s Salary is $ '||V_Sal);
 29 FETCH MyCursor INTO V_Ename, V_Sal;
 30 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 31 FETCH MyCursor INTO V Ename, V Sal;
 32 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 33 FETCH MyCursor INTO V Ename, V Sal;
 34 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 35 CLOSE MyCursor;
 36 OPEN MyCursor;
 37 FETCH MyCursor INTO V_Ename, V_Sal;
 38 DBMS_OUTPUT.PUT_LINE('Row Number '||MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 39 FETCH MyCursor INTO V_Ename, V_Sal;
 40 DBMS_OUTPUT.PUT_LINE('Row Number '| | MyCursor%ROWCOUNT | | ::
'||V_Ename||'''s Salary is $ '||V_Sal);
 41 FETCH MyCursor INTO V_Ename, V_Sal;
 42 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 43 FETCH MyCursor INTO V_Ename, V_Sal;
 44 DBMS_OUTPUT.PUT_LINE('Row Number '| MyCursor%ROWCOUNT||':
'||V_Ename||'''s Salary is $ '||V_Sal);
 45 CLOSE MyCursor;
 46 OPEN MyCursor;
 47 CLOSE MyCursor;
 48* END;
SOL> /
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
Row Number 5 : MARTIN's Salary is $ 1250
Row Number 6 : ALLEN's Salary is $ 1600
Row Number 7: TURNER's Salary is $ 1500
Row Number 8 : JAMES's Salary is $ 950
Row Number 1 : KING's Salary is $ 5000
Row Number 2 : BLAKE's Salary is $ 2850
Row Number 3 : CLARK's Salary is $ 2450
Row Number 4 : JONES's Salary is $ 2975
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
  2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
```

```
4 V_EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 OPEN EmpCursor;
  7 LOOP
  8 FETCH EmpCursor INTO V_EmpData;
  9 EXIT WHEN EmpCursor%NOTFOUND;
 10 DBMS_OUTPUT.PUT_LINE(V_EmpData.Ename);
 11 END LOOP;
 12 CLOSE EmpCursor;
 13 END;
 14
KING
BLAKE
CLARK
JONES
MARTIN
ALLEN
TURNER
JAMES
WARD
FORD
SMITH
SCOTT
ADAMS
MILLER
PL/SQL procedure successfully completed.
SOL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
  4 V EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 OPEN EmpCursor;
  7 LOOP
  8 EXIT WHEN EmpCursor%NOTFOUND;
  9 FETCH EmpCursor INTO V_EmpData;
 10 DBMS OUTPUT.PUT LINE(V EmpData.Ename);
 11 END LOOP;
 12 CLOSE EmpCursor;
 13* END;
SQL> /
KING
BLAKE
CLARK
JONES
MARTIN
ALLEN
TURNER
JAMES
WARD
FORD
```

```
SMITH
SCOTT
ADAMS
MILLER
MILLER
PL/SQL procedure successfully completed.
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
  4 V_EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 OPEN EmpCursor;
  7 LOOP
  8 FETCH EmpCursor INTO V_EmpData;
  9 DBMS_OUTPUT.PUT_LINE(V_EmpData.Ename);
 10 EXIT WHEN EmpCursor%NOTFOUND;
 11 END LOOP;
 12 CLOSE EmpCursor;
 13* END;
SQL> /
KING
BLAKE
CLARK
JONES
MARTIN
ALLEN
TURNER
JAMES
WARD
FORD
SMITH
SCOTT
ADAMS
MILLER
MILLER
PL/SQL procedure successfully completed.
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
  4 V_EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 OPEN EmpCursor;
  7 LOOP
  8 FETCH EmpCursor INTO V_EmpData;
  9 EXIT WHEN EmpCursor%NOTFOUND;
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```

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Mobile: 9030750090

```
10 DBMS_OUTPUT.PUT_LINE(V_EmpData.Ename);
 11 END LOOP;
 12 CLOSE EmpCursor;
 13* END;
SQL> /
KING
BLAKE
CLARK
JONES
MARTIN
ALLEN
TURNER
JAMES
WARD
FORD
SMITH
SCOTT
ADAMS
MILLER
PL/SQL procedure successfully completed.
SQL> cl scr
SOL> DECLARE
  2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
  4 V EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 OPEN EmpCursor;
  7 LOOP
  8 FETCH EmpCursor INTO V_EmpData;
  9 DBMS_OUTPUT.PUT_LINE('Record Number : '||EmpCursor%ROWCOUNT||'
'||V_EmpData.Ename);
 10 EXIT WHEN EmpCursor%NOTFOUND;
 11 END LOOP;
 12 CLOSE EmpCursor;
 13 END;
14 /
Record Number: 1 KING
Record Number: 2 BLAKE
Record Number: 3 CLARK
Record Number: 4 JONES
Record Number: 5 MARTIN
Record Number: 6 ALLEN
Record Number: 7 TURNER
Record Number: 8 JAMES
Record Number: 9 WARD
Record Number: 10 FORD
Record Number: 11 SMITH
Record Number: 12 SCOTT
Record Number: 13 ADAMS
Record Number: 14 MILLER
Record Number: 14 MILLER
```

```
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
  V_Ename Emp.Ename% TYPE;
  3 V Sal Emp.Sal%TYPE;
  4 V RowCount PLS INTEGER := 0;
  5 CURSOR EmpRowCount IS
     SELECT Ename, Sal
  6
     FROM Emp
  8
    ORDER BY Ename;
  9
    BEGIN
 10 OPEN EMPROWCOUNT;
 11 LOOP
 12 FETCH EmpRowCount INTO V_Ename, V_Sal;
 13 EXIT WHEN EmpRowCount%NOTFOUND;
 14
    V_RoWCount := EmpRoWCount%ROWCOUNT;
 15
    DBMS_OUTPUT.PUT_LINE('Employee Name : '||V_Ename||', Salary :
'||V_Sal);
    END LOOP;
 16
 17    DBMS_OUTPUT.PUT_LINE(V_RowCount||' Rows Processed So Far...');
 18
     CLOSE EmpRowCount;
 19
     END;
 20
Employee Name: ADAMS, Salary: 1100
Employee Name: ALLEN, Salary: 1600
Employee Name: BLAKE, Salary: 2850
Employee Name: CLARK, Salary: 2450
Employee Name: FORD, Salary: 3000
Employee Name: JAMES, Salary: 950
Employee Name : JONES, Salary : 2975
Employee Name: KING, Salary: 5000
Employee Name: MARTIN, Salary: 1250
Employee Name: MILLER, Salary: 1300
Employee Name : SCOTT, Salary : 3000
Employee Name : SMITH, Salary : 800
Employee Name: TURNER, Salary: 1500
Employee Name: WARD, Salary: 1250
14 Rows Processed So Far...
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
 2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
  4 V_EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 OPEN EmpCursor;
  7 DBMS_OUTPUT.PUT_LINE('The Details of Employees in Your
Organization are as Follows');
 8 DBMS_OUTPUT.PUT_LINE('-----
```

```
9 DBMS_OUTPUT.PUT_LINE(' Name '||' Designation '||'
Basic Salary '||' Annual Salary ');
  10 DBMS_OUTPUT.PUT_LINE(' ----- '||' ------ '||' -
 ----- '||' ----- ');
  11 LOOP
  12 FETCH EmpCursor INTO V_EmpData;
  13 EXIT WHEN EmpCursor%NOTFOUND;
  14 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Ename, 12) | RPAD(V_EmpData.Job,
 12) | LPAD(V_EmpData.Sal, 10) | LPAD(V_EmpData.Sal * 12, 20));
  15 END LOOP;
  16 CLOSE EmpCursor;
  17 END;
 18 /
 The Details of Employees in Your Organization are as Follows
 ______
           Designation Basic Salary Annual Salary
             -----
                                     -----
         PRESIDENT 5000
MANAGER 2850
MANAGER 2450
MANAGER 2975
SALESMAN 1250
KING
                                                             60000
                                    2850
                                                             34200
BLAKE
CLARK
                                    2450
                                                             29400
JONES
                                    2975

        JONES
        MANAGER
        2975

        MARTIN
        SALESMAN
        1250

        ALLEN
        SALESMAN
        1600

        TURNER
        SALESMAN
        1500

        JAMES
        CLERK
        950

        WARD
        SALESMAN
        1250

        FORD
        ANALYST
        3000

        SMITH
        CLERK
        800

        SCOTT
        ANALYST
        3000

        ADAMS
        CLERK
        1100

        MILLER
        CLERK
        1300

                                                             35700
                                                             15000
                                                             19200
                                                             18000
                                                             11400
                                                             15000
                                                             36000
                                                              9600
                                                             36000
                                                             13200
                                                             15600
PL/SQL procedure successfully completed.
SQL> cl scr
 SQL> DECLARE
   2 V RowCount NUMBER(4);
   3 CURSOR EmpCursor IS
   4 SELECT *
   5 FROM Emp;
   6 V EmpData EmpCursor%ROWTYPE;
   7 BEGIN
   8 OPEN EmpCursor;
   9 DBMS_OUTPUT.PUT_LINE(RPAD('Employees Information', 80));
  10 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
  11 DBMS_OUTPUT.PUT_LINE(RPAD('EmpNo', 8)|| RPAD('Ename',
 12) | RPAD('Job', 12) | RPAD('Deptno', 8) | RPAD('Mgr',
 10) | RPAD('Hiredate', 12) | RPAD('Sal', 12) | RPAD('Comm', 10));
  12 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
  13 LOOP
  14 FETCH EmpCursor INTO V_EmpData;
  15 EXIT WHEN EmpCursor%NOTFOUND;
  16  V_RoWCount := EmpCursor%ROWCOUNT;
```

```
17 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Empno, 8)
| RPAD(V_EmpData.Ename, 12) | RPAD(V_EmpData.Job,
12) | RPAD(V_EmpData.Deptno, 8) | NVL(TO_CHAR(RPAD(V_EmpData.MGR,
10)), 'No Manager') | | RPAD(V_EmpData.Hiredate, 12) | | RPAD(V_EmpData.Sal,
12) | NVL(TO_CHAR(RPAD(V_EmpData.Comm, 12)),'-NA-'));
18 END LOOP;
19 DBMS_OUTPUT.PUT_LINE(V_RowCount||' Rows Processed So Far...');
20 CLOSE EmpCursor;
21 END;
22
Employees Information
______
_____
EmpNo Ename Job Deptno Mgr Hiredate Sal
Comm
______
7839
      KING PRESIDENT 10 No Manager17-NOV-81
                                                  5000
-NA-
7698 BLAKE MANAGER 30 7839
                                         01-MAY-81
                                                  2850
-NA-
7782 CLARK
               MANAGER
                          10
                                7839
                                         09-JUN-81
                                                  2450
-NA-
    JONES
7566
                MANAGER
                          20
                                7839
                                         02-APR-81
                                                  2975
-NA-
7654 MARTIN
                                7698
                SALESMAN
                          30
                                         28-SEP-81
                                                  1250
1400
7499 ALLEN SALESMAN
                                         20-FEB-81
                          30
                                7698
                                                  1600
300
7844 TURNER SALESMAN
                                7698
                          30
                                         08-SEP-81
                                                  1500
      JAMES
7900
                CLERK
                          30
                                7698
                                         03-DEC-81
                                                  950
-NA-
7521
      WARD
                SALESMAN
                          30
                                7698
                                         22-FEB-81
                                                  1250
500
7902
                                7566
                                                  3000
     FORD
                ANALYST
                          20
                                         03-DEC-81
-NA-
      SMITH
                CLERK
                          20
                                7902
                                        17-DEC-80
                                                  800
7369
-NA-
7788 SCOTT
               ANALYST
                          20
                                7566
                                         09-DEC-82
                                                  3000
-NA-
7876 ADAMS
                CLERK
                                7788
                          20
                                        12-JAN-83
                                                 1100
-NA-
7934 MILLER
                                7782
                CLERK
                          10
                                         23-JAN-82
                                                  1300
-NA-
14 Rows Processed So Far...
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
 2 V_RowCount NUMBER(4);
 3 CURSOR EmpCursor IS
 4 SELECT *
```

```
5 FROM Emp;
    6  V_EmpData EmpCursor%ROWTYPE;
    8 OPEN EmpCursor;
    9 DBMS_OUTPUT.PUT_LINE(RPAD('Employees Information', 80));
  10 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
  11 DBMS OUTPUT.PUT LINE(RPAD('Ename', 12) | RPAD('Job',
 12) | RPAD('Sal', 12) | RPAD('Comm', 10));
  12 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
  13 LOOP
  14 FETCH EmpCursor INTO V EmpData;
  15 EXIT WHEN EmpCursor%NOTFOUND;
  16  V_RowCount := EmpCursor%ROWCOUNT;
  17 IF V_EmpData.Job = 'SALESMAN'
  18 THEN
  19 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Ename, 12) | RPAD(V_EmpData.Job,
 12) | RPAD(V_EmpData.Sal, 12) | V_EmpData.Comm | ' Eligible For
 Commission.');
  20 ELSE
  21 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Ename, 12) | RPAD(V_EmpData.Job,
 12) | RPAD(V EmpData.Sal, 12) | Sorry! Not Eligible For Commission.');
  22 END IF;
  23 END LOOP;
  24 DBMS_OUTPUT_PUT_LINE(V_RowCount|| Rows Processed So Far...');
  25 CLOSE EmpCursor;
  26 END;
  27 /
 Employees Information
 ______
                             Sal Comm
                   Job
KING PRESIDENT 5000 Sorry! Not Eligible For Commission.
BLAKE MANAGER 2850 Sorry! Not Eligible For Commission.
CLARK MANAGER 2450 Sorry! Not Eligible For Commission.
JONES MANAGER 2975 Sorry! Not Eligible For Commission.
MARTIN SALESMAN 1250 1400 Eligible For Commission.
ALLEN SALESMAN 1600 300 Eligible For Commission.
TURNER SALESMAN 1500 0 Eligible For Commission.
JAMES CLERK 950 Sorry! Not Eligible For Commission.
WARD SALESMAN 1250 500 Eligible For Commission.
FORD ANALYST 3000 Sorry! Not Eligible For Commission.
SMITH CLERK 800 Sorry! Not Eligible For Commission.
SCOTT ANALYST 3000 Sorry! Not Eligible For Commission.
SCOTT ANALYST 3000 Sorry! Not Eligible For Commission.
ADAMS CLERK 1100 Sorry! Not Eligible For Commission.
MILLER CLERK 1300 Sorry! Not Eligible For Commission.
MILLER CLERK 1300 Sorry! Not Eligible For Commission.
 14 Rows Processed So Far...
PL/SQL procedure successfully completed.
 SQL> ED
 Wrote file afiedt.buf
```

#### 1 DECLARE

```
2 V_Job Emp.Job%TYPE := UPPER('&GJob');
  3 V_RowCount NUMBER(4);
  4 CURSOR EmpCursor IS
  5 SELECT *
  6 FROM Emp;
  7 V_EmpData EmpCursor%ROWTYPE;
  8 BEGIN
  9 OPEN EmpCursor;
 10 DBMS_OUTPUT.PUT_LINE(RPAD('Employees Information', 80));
 11 DBMS OUTPUT.PUT LINE(RPAD('-', 80,'-'));
 12 DBMS_OUTPUT.PUT_LINE(RPAD('Ename', 12)||RPAD('Job',
12) | RPAD('Sal', 12) | RPAD('Job', 10));
 13 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
 15 FETCH EmpCursor INTO V_EmpData;
 16 EXIT WHEN EmpCursor%NOTFOUND;
 17  V_RowCount := EmpCursor%ROWCOUNT;
 18 IF V_EmpData.Job = V_Job
 19 THEN
 20 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Ename, 12) | RPAD(V_EmpData.Job,
12) | RPAD(V_EmpData.Sal, 12) | RPAD(V_EmpData.Job, 12));
 21 ELSE
 22 NULL;
 23 END IF;
 24 END LOOP;
 25 CLOSE EmpCursor;
 26* END;
SOL> /
Enter value for gjob: Clerk
Employees Information
______
          Job Sal Job
Ename
JAMES CLERK 950 CLERK SMITH CLERK 800 CLERK ADAMS CLERK 1100 CLERK MILLER CLERK 1300 CLERK
PL/SQL procedure successfully completed.
SQL> ED
Wrote file afiedt.buf
  1 DECLARE
  2 V_Job Emp.Job%TYPE := UPPER('&GJob');
  3 V RowCount NUMBER(4);
  4 CURSOR EmpCursor IS
  5 SELECT *
  6 FROM Emp;
    V_EmpData EmpCursor%ROWTYPE;
  8 BEGIN
  9 OPEN EmpCursor;
 10 DBMS_OUTPUT.PUT_LINE(RPAD('Employees Information', 80));
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```

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```
11 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
 12 DBMS_OUTPUT.PUT_LINE(RPAD('Ename', 12) | RPAD('Job',
12) | RPAD('Sal', 12));
 13 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
 14 LOOP
 15 FETCH EmpCursor INTO V_EmpData;
 16 EXIT WHEN EmpCursor%NOTFOUND;
 17  V_RoWCount := EmpCursor%ROWCOUNT;
 18 IF V_EmpData.Job = V_Job
 19 THEN
   DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Ename, 12)||RPAD(V_EmpData.Job,
12) | | RPAD(V_EmpData.Sal, 12));
 21 ELSE
 22 NULL;
 23 END IF;
 24 END LOOP;
 25 CLOSE EmpCursor;
26* END;
SQL> /
Enter value for gjob: Salesman
Employees Information
        Job
                  Sal
Ename
______
-----
MARTIN SALESMAN 1250
ALLEN SALESMAN 1600
TURNER SALESMAN 1500
WARD SALESMAN 1250
PL/SQL procedure successfully completed.
SQL> /
Enter value for gjob: Manager
Employees Information
______
                 Sal
Ename Job
______
BLAKE MANAGER 2850
CLARK MANAGER 2450
JONES MANAGER 2975
PL/SQL procedure successfully completed.
SQL> /
Enter value for gjob: Clerk
Employees Information
-----
                 Sal
Ename
         Job
______
```

```
JAMES CLERK 950
SMITH CLERK 800
ADAMS CLERK 1100
MILLER CLERK 1300
PL/SQL procedure successfully completed.
SQL> /
Enter value for gjob: President
Employees Information
KING
      PRESIDENT 5000
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
  2 V_GivenJob Emp.Job%TYPE := UPPER(RTRIM(LTRIM('&GiveJob')));
  3 V SalInvest Emp.Sal%TYPE := 0;
  4 V_JobCount NUMBER(3) := 0;
  5 CURSOR EmpCursor IS
  6 SELECT *
  7 FROM Emp;
  8  V_EmpData EmpCursor%ROWTYPE;
  9 BEGIN
 10 OPEN EmpCursor;
 11 DBMS_OUTPUT.PUT_LINE('Details of Employees With
'||V_GivenJob||'''s Designation Are...');
 12 DBMS_OUTPUT.PUT_LINE('-----
----');
 13 DBMS_OUTPUT.PUT_LINE('
                                 Name '||' Basic Salary
'||' Annual Salary ');
14 DBMS_OUTPUT.PUT_LINE(' ----- '||' ------ '||'
-----');
 15 LOOP
 16 FETCH EmpCursor INTO V EmpData;
 17 EXIT WHEN EmpCursor%NOTFOUND;
 18 IF V_EmpData.Job = V_GivenJob
 19 THEN
 20 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Ename, 12)||LPAD(V_EmpData.Sal,
5) | LPAD(V_EmpData.Sal * 12, 20));
 21 V_SalInvest := V_SalInvest + V_EmpData.Sal;
 22 V_JobCount := V_JobCount + 1;
 23 ELSE
 24 NULL;
 25 END IF;
 26 END LOOP;
 27 DBMS_OUTPUT.PUT_LINE('The Total Number of '||V_GivenJob||'''s Are
'||V_JobCount ||' And The Investment is : '||V_SalInvest);
 28 CLOSE EmpCursor;
```

```
29 END;
30 /
Enter value for givejob: CLERK
Details of Employees With CLERK's Designation Are...
-----
          Basic Salary
                           Annual Salary
JAMES
          950
                           11400
           800
SMITH
                            9600
         1100
ADAMS
                           13200
MILLER
          1300
                            15600
The Total Number of CLERK's Are 4 And The Investment is: 4150
PL/SQL procedure successfully completed.
SQL> /
Enter value for givejob: Salesman
Details of Employees With SALESMAN's Designation Are...
-----
          Basic Salary
                           Annual Salary
MARTIN
          1250
                           15000
       1600
1500
1250
ALLEN
                           19200
TURNER
                           18000
                           15000
WARD
The Total Number of SALESMAN's Are 4 And The Investment is: 5600
PL/SQL procedure successfully completed.
SQL> cl scr
SOL> DECLARE
 2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
 4 V_EmpData EmpCursor%ROWTYPE;
 5 BEGIN
 6 OPEN EmpCursor;
 7 FETCH EmpCursor INTO V EmpData;
 8 WHILE EmpCursor%FOUND
 9 LOOP
 10 DBMS OUTPUT.PUT LINE(V EmpData.Ename);
 11 FETCH EmpCursor INTO V EmpData;
 12 END LOOP;
 13 CLOSE EmpCursor;
14 END;
15 /
KING
BLAKE
CLARK
JONES
MARTIN
ALLEN
TURNER
JAMES
WARD
```

```
FORD
SMITH
SCOTT
ADAMS
MILLER
PL/SQL procedure successfully completed.
SQL> DECLARE
  2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
  4 V_EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 OPEN EmpCursor;
  7 FETCH EmpCursor INTO V_EmpData;
  8 WHILE EmpCursor%FOUND
  9 LOOP
 10 DBMS_OUTPUT.PUT_LINE('Record Number : '||EmpCursor%ROWCOUNT||'
'||V_EmpData.Ename);
 11 FETCH EmpCursor INTO V_EmpData;
 12 END LOOP;
 13 CLOSE EmpCursor;
 14 END;
 15
Record Number: 1 KING
Record Number: 2 BLAKE
Record Number: 3 CLARK
Record Number: 4 JONES
Record Number: 5 MARTIN
Record Number: 6 ALLEN
Record Number: 7 TURNER
Record Number: 8 JAMES
Record Number: 9 WARD
Record Number: 10 FORD
Record Number: 11 SMITH
Record Number: 12 SCOTT
Record Number: 13 ADAMS
Record Number: 14 MILLER
PL/SQL procedure successfully completed.
SOL> cl scr
SQL> DECLARE
  2 V RowCount NUMBER(4);
  3 CURSOR EmpCursor IS
  4 SELECT *
  5 FROM Emp;
  6  V_EmpData EmpCursor%ROWTYPE;
  7 BEGIN
  8 OPEN EmpCursor;
  9 DBMS_OUTPUT.PUT_LINE(RPAD(LPAD('Employees Information', 49, '*'),
80, '*'));
 10 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
```

```
11 DBMS_OUTPUT.PUT_LINE(RPAD('EmpNo', 8)|| RPAD('Ename',
12) | RPAD('Job', 12) | RPAD('Deptno', 8) | RPAD('Mgr',
10)||RPAD('Hiredate', 12)||RPAD('Sal', 12)||RPAD('Comm', 10));
12 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
13 FETCH EmpCursor INTO V_EmpData;
14 WHILE EmpCursor%FOUND
15 LOOP
16  V_RowCount := EmpCursor%ROWCOUNT;
17 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpData.Empno, 8)
| RPAD(V_EmpData.Ename, 12) | RPAD(V_EmpData.Job,
12) | RPAD(V_EmpData.Deptno, 8) | NVL(TO_CHAR(RPAD(V_EmpData.MGR,
10)), 'No Manager') | RPAD(V_EmpData.Hiredate, 12) | RPAD(V_EmpData.Sal,
12) | NVL(TO_CHAR(RPAD(V_EmpData.Comm, 12)),'-NA-'));
18 FETCH EmpCursor INTO V_EmpData;
19 END LOOP;
20 DBMS_OUTPUT.PUT_LINE(V_RowCount||' Rows Processed So Far...');
21 CLOSE EmpCursor;
22 END;
23 /
Information******************
EmpNo Ename Job
                         Deptno Mgr
                                       Hiredate Sal
Comm
______
7839 KING PRESIDENT 10 No Manager17-NOV-81 5000
-NA-
7698 BLAKE MANAGER 30 7839
                                         01-MAY-81 2850
-NA-
7782 CLARK MANAGER 10
                                7839
                                         09-JUN-81
                                                   2450
-NA-
              MANAGER
                          20
7566
     JONES
                                 7839
                                         02-APR-81
                                                   2975
-NA-
                                 7698
7654
    MARTIN
                          30
                                         28-SEP-81
                                                   1250
                SALESMAN
1400
7499
                                 7698
                                         20-FEB-81
                                                   1600
      ALLEN
                SALESMAN
                          30
300
7844
     TURNER
                                 7698
                SALESMAN
                         30
                                         08-SEP-81
                                                  1500
7900 JAMES
                CLERK
                         30
                                 7698
                                         03-DEC-81
                                                   950
-NA-
7521
      WARD SALESMAN
                          30
                                 7698
                                         22-FEB-81
                                                   1250
500
                                                   3000
7902
      FORD ANALYST
                          20
                                 7566
                                         03-DEC-81
-NA-
     SMITH
                CLERK
                          20
                                 7902
                                         17-DEC-80
                                                   800
7369
-NA-
7788
                                 7566
                                                   3000
      SCOTT
               ANALYST
                          20
                                         09-DEC-82
-NA-
                CLERK
7876
    ADAMS
                          20
                                 7788
                                         12-JAN-83
                                                   1100
-NA-
7934
      MILLER
                CLERK
                          10
                                 7782
                                         23-JAN-82
                                                   1300
-NA-
```

```
14 Rows Processed So Far...
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
 2 CURSOR EmpCursor IS
  3 SELECT * FROM Emp;
  4 V_EmpData EmpCursor%ROWTYPE;
  5 BEGIN
  6 FOR V_EmpData IN EmpCursor
  7 LOOP
  8 DBMS_OUTPUT.PUT_LINE(V_EmpData.Ename);
  9 END LOOP;
 10 END;
 11 /
KING
BLAKE
CLARK
JONES
MARTIN
ALLEN
TURNER
JAMES
WARD
FORD
SMITH
SCOTT
ADAMS
MILLER
PL/SQL procedure successfully completed.
SQL> SPOOL OFF
SQL> cl scr
SQL> SET SERVEROUTPUT ON
SQL> SET VERIFY OFF
SQL> cl scr
SOL> DESC Emp
                                         Null? Type
Name
 _____
 EMPNO
                                         NOT NULL NUMBER(4)
 ENAME
                                                  VARCHAR2(10)
 JOB
                                                  VARCHAR2(9)
MGR
                                                  NUMBER (4)
 HIREDATE
                                                  DATE
 SAL
                                                  NUMBER(7,2)
 COMM
                                                  NUMBER(7,2)
 DEPTNO
                                         NOT NULL NUMBER(2)
SQL> cl scr
```

```
SQL> DECLARE
 2
     TYPE EmpRefCursor
 3
      IS REF CURSOR;
 4
     V_EmpRefCursor EmpRefCursor;
     V_Ename Emp.Ename%TYPE;
  6 BEGIN
 7
     OPEN V_EmpRefCursor
 8
     FOR
 9
      SELECT Ename FROM Emp;
    LOOP
 10
11
          FETCH V_EmpRefCursor INTO V_Ename;
12
          EXIT WHEN V_EmpRefCursor%NOTFOUND;
          DBMS_OUTPUT.PUT_LINE('Employee Number
'||TO_CHAR(V_EmpRefCursor%ROWCOUNT, '09')||' : '||V_Ename);
      END LOOP;
15
      CLOSE V_EmpRefCursor;
16 END;
17
    /
Employee Number 01 : KING
Employee Number 02 : BLAKE
Employee Number 03 : CLARK
Employee Number 04 : JONES
Employee Number 05 : MARTIN
Employee Number 06 : ALLEN
Employee Number 07 : TURNER
Employee Number 08 : JAMES
Employee Number 09: WARD
Employee Number 10 : FORD
Employee Number 11: SMITH
Employee Number 12 : SCOTT
Employee Number 13 : ADAMS
Employee Number 14: MILLER
PL/SQL procedure successfully completed.
SQL> DECLARE
      CURSOR EmpRefCursor
 2
 3
  4
     SELECT Ename FROM Emp;
 5
     V Ename Emp.Ename%TYPE;
 6 BEGIN
 7
     OPEN EmpRefCursor;
 8
      LOOP
          FETCH EmpRefCursor INTO V_Ename;
 9
     EXIT WHEN EmpRefCursor%NOTFOUND;
10
          DBMS_OUTPUT.PUT_LINE('Employee Number
'||TO_CHAR(EmpRefCursor%ROWCOUNT, '09')||' : '||V_Ename);
     END LOOP;
12
13
      CLOSE EmpRefCursor;
14 END;
15
Employee Number 01 : KING
Employee Number 02 : BLAKE
Employee Number 03 : CLARK
```

```
Employee Number 04 : JONES
Employee Number 05 : MARTIN
Employee Number 06 : ALLEN
Employee Number 07 : TURNER
Employee Number 08 : JAMES
Employee Number 09 : WARD
Employee Number 10 : FORD
Employee Number 11: SMITH
Employee Number 12 : SCOTT
Employee Number 13 : ADAMS
Employee Number 14 : MILLER
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
  2 V_RowCount NUMBER(4);
  3 V_TypeTable VARCHAR2(30) := UPPER('&GiveTable');
  4 TYPE GenericCursor
  5 IS REF CURSOR;
  6 V GenericCursor GenericCursor;
  7 V EmpRecord Emp%ROWTYPE;
  8  V DeptRecord Dept%ROWTYPE;
 9 V_SalGradeRecord SalGrade%ROWTYPE;
 10 BEGIN
 11 IF V_TypeTable = 'EMP' THEN
 12 OPEN V GenericCursor
 13 FOR
 14 SELECT * FROM Emp;
 15 DBMS_OUTPUT.PUT_LINE(RPAD(LPAD('Employees Information', 49, '*'),
80, '*'));
 16 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
 17 DBMS_OUTPUT.PUT_LINE(RPAD('EmpNo', 8)|| RPAD('Ename',
12) | RPAD('Job', 12) | RPAD('Deptno', 8) | RPAD('Mgr',
10) | RPAD('Hiredate', 12) | RPAD('Sal', 12) | RPAD('Comm', 10));
 18 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
 19 LOOP
 20     FETCH V_GenericCursor INTO V_EmpRecord;
 21
         EXIT WHEN V GenericCursor%NOTFOUND;
 22
          V RoWCount := V GenericCursor%ROWCOUNT;
 23 DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpRecord.Empno, 8)
| RPAD(V_EmpRecord.Ename, 12) | RPAD(V_EmpRecord.Job,
12) | RPAD(V_EmpRecord.Deptno, 8) | NVL(TO_CHAR(RPAD(V_EmpRecord.MGR,
10)),'No Manager')||RPAD(V_EmpRecord.Hiredate,
12) | RPAD(V_EmpRecord.Sal, 12) | NVL(TO_CHAR(RPAD(V_EmpRecord.Comm,
12)),'-NA-'));
 24 END LOOP;
 25 CLOSE V GenericCursor;
 26 DBMS_OUTPUT.PUT_LINE(V_RowCount||' Rows Processed So Far...');
    IF V_TypeTable = 'DEPT' THEN
 29 OPEN V_GenericCursor
 30 FOR
 31
     SELECT * FROM Dept;
```

```
32 DBMS_OUTPUT.PUT_LINE(RPAD(LPAD('Department Information', 29, '*'),
49, '*'));
    DBMS_OUTPUT.PUT_LINE(RPAD('-', 40,'-'));
33
    DBMS_OUTPUT.PUT_LINE(RPAD('Deptno', 8)|| RPAD('Dname',
12) | RPAD('Loc', 12));
    DBMS_OUTPUT.PUT_LINE(RPAD('-', 40,'-'));
 37 FETCH V_GenericCursor INTO V_DeptRecord;
 38 EXIT WHEN V_GenericCursor%NOTFOUND;
 39
     V_RowCount := V_GenericCursor%ROWCOUNT;
     DBMS_OUTPUT.PUT_LINE(RPAD(V_DeptRecord.Deptno, 8)
| RPAD(V_DeptRecord.Dname, 12) | RPAD(V_DeptRecord.Dname, 12));
 41 END LOOP;
 42 CLOSE V GenericCursor;
 43 DBMS_OUTPUT.PUT_LINE(V_RowCount||' Rows Processed So Far...');
 44
 45
           IF V_TypeTable = 'SALGRADE' THEN
 46
          OPEN V_GenericCursor
 47
          FOR
48
         SELECT * FROM SalGrade;
          DBMS OUTPUT.PUT LINE(RPAD(LPAD('Salary Grade Information',
49
29, '*'), 49, '*'));
          DBMS OUTPUT.PUT LINE(RPAD('-', 40,'-'));
50
          DBMS_OUTPUT.PUT_LINE(RPAD('Grade', 8)|| RPAD('LoSal',
12) | RPAD('HiSal', 12));
52
         DBMS_OUTPUT.PUT_LINE(RPAD('-', 40,'-'));
53
         LOOP
        FETCH V_GenericCursor INTO V_SalGradeRecord;
54
55
         EXIT WHEN V_GenericCursor%NOTFOUND;
          V_RowCount := V_GenericCursor%ROWCOUNT;
56
57
          DBMS_OUTPUT.PUT_LINE(RPAD(V_SalGradeRecord.Grade, 8)
| RPAD(V_SalGradeRecord.LoSal, 12) | RPAD(V_SalGradeRecord.HiSal, 12));
58 END LOOP;
59
          CLOSE V_GenericCursor;
         DBMS_OUTPUT.PUT_LINE(V_RowCount|| Rows Processed So
60
Far...');
          ELSE
61
         DBMS OUTPUT.PUT LINE('Sorry You Either Do Not Have
Permissions on The Table OR The Requested Table Does Not Exist.');
          END IF;
64 END IF;
65 END IF:
66 END;
Enter value for givetable: Emp
Information*******************
EmpNo Ename Job
                            Deptno Mgr
                                            Hiredate Sal
7839 KING PRESIDENT 10 No Manager17-NOV-81 5000
```

7698	BLAKE	MANAGER	30	7839	01-MAY-81	2850
-NA-						
7782	CLARK	MANAGER	10	7839	09-JUN-81	2450
-NA-						
7566	JONES	MANAGER	20	7839	02-APR-81	2975
-NA-						
7654	MARTIN	SALESMAN	30	7698	28-SEP-81	1250
1400						
7499	ALLEN	SALESMAN	30	7698	20-FEB-81	1600
300						
7844	TURNER	SALESMAN	30	7698	08-SEP-81	1500
0						
7900	JAMES	CLERK	30	7698	03-DEC-81	950
-NA-						
7521	WARD	SALESMAN	30	7698	22-FEB-81	1250
500						
7902	FORD	ANALYST	20	7566	03-DEC-81	3000
-NA-						
7369	SMITH	CLERK	20	7902	17-DEC-80	800
-NA-						
7788	SCOTT	ANALYST	20	7566	09-DEC-82	3000
-NA-						
7876	ADAMS	CLERK	20	7788	12-JAN-83	1100
-NA-						
7934	MILLER	CLERK	10	7782	23-JAN-82	1300
-NA-						
14	D					

14 Rows Processed So Far...

PL/SQL procedure successfully completed.

SQL> /

Enter value for givetable: Dept

\*\*\*\*\*\*Department Information\*\*\*\*\*\*\*\*\*\*\*\*

Deptno Dname Loc

10 ACCOUNTING ACCOUNTING

10 ACCOUNTING ACCOUNTING
20 RESEARCH RESEARCH
30 SALES SALES
40 OPERATIONS OPERATIONS

4 Rows Processed So Far...

PL/SQL procedure successfully completed.

SQL> /

Enter value for givetable: SalGrade

\*\*\*\*Salary Grade Information\*\*\*\*\*\*\*\*\*\*\*\*\*

-----

Grade	LoSal	HiSal
1	700	1200
2	1201	1400
3	1401	2000
4	2001	3000
5	3001	9999

```
5 Rows Processed So Far...
PL/SQL procedure successfully completed.
SQL> /
Enter value for givetable: Sample
Sorry You Either Do Not Have Permissions on The Table OR The Requested
Table
Does Not Exist.
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
 2 V_RowCount NUMBER(4);
 3 TYPE GenericCursor
 4 IS REF CURSOR;
 5 V_GenericCursor GenericCursor;
 6 TYPE TablesRecordType IS RECORD
     EmpRecord Emp%ROWTYPE
 8
   );
 9
 10 V_EmpRecordType TablesRecordType;
 11 BEGIN
 12 DBMS_OUTPUT.ENABLE(1000000);
 13 DBMS_OUTPUT.PUT_LINE(RPAD(LPAD('Employees Information', 49, '*'),
80, '*'));
 14 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
15 DBMS_OUTPUT.PUT_LINE(RPAD('EmpNo', 8)|| RPAD('Ename',
12) | RPAD('Job', 12) | RPAD('Deptno', 8) | RPAD('Mgr',
10) | RPAD('Hiredate', 12) | RPAD('Sal', 12) | RPAD('Comm', 10));
 16 DBMS_OUTPUT.PUT_LINE(RPAD('-', 80,'-'));
 17 FOR LoopIndex IN (
 18
                      SELECT Deptno, Dname
 19
                      FROM Dept
 20
 21 LOOP
 22 OPEN V GenericCursor
 23 FOR
 24 SELECT *
 25 FROM Emp
 26 WHERE Deptno = LoopIndex.Deptno;
 27 DBMS_OUTPUT.PUT_LINE('-----
-----');
 28 DBMS_OUTPUT_PUT_LINE('Now Printing The Employees of Department :
'|LoopIndex.Dname);
29 DBMS_OUTPUT.PUT_LINE('-----
-----');
 30     V_RoWCount := 0;
 31 LOOP
 32
          FETCH V_GenericCursor INTO V_EmpRecordType.EmpRecord;
 33
          EXIT WHEN V_GenericCursor%NOTFOUND;
 34
          V_RowCount := V_GenericCursor%ROWCOUNT;
```

```
DBMS_OUTPUT.PUT_LINE(RPAD(V_EmpRecordType.EmpRecord.Empno,
8) | RPAD(V_EmpRecordType.EmpRecord.Ename,
12) | RPAD(V_EmpRecordType.EmpRecord.Job,
12) | RPAD(V_EmpRecordType.EmpRecord.Deptno,
8) | NVL(TO_CHAR(RPAD(V_EmpRecordType.EmpRecord.MGR, 10)),'No
Manager') | RPAD(V_EmpRecordType.EmpRecord.Hiredate,
12) | RPAD(V_EmpRecordType.EmpRecord.Sal,
12) | NVL(TO_CHAR(RPAD(V_EmpRecordType.EmpRecord.Comm, 12)),'-NA-'));
   END LOOP;
37
   CLOSE V GenericCursor;
38 DBMS_OUTPUT.PUT_LINE(V_RowCount||' Rows Processed So Far...');
39 END LOOP;
40 END;
41 /
*******Employees
Information*******************
EmpNo Ename Job
                     Deptno Mgr Hiredate Sal
______
Now Printing The Employees of Department : ACCOUNTING
______
7839 KING PRESIDENT 10 No Manager17-NOV-81 5000
-NA-
7782 CLARK MANAGER 10 7839 09-JUN-81 2450
-NA-
7934 MILLER CLERK 10 7782 23-JAN-82 1300
3 Rows Processed So Far...
Now Printing The Employees of Department: RESEARCH
______
7566 JONES MANAGER 20 7839
                                 02-APR-81 2975
-NA-
7902 FORD ANALYST 20 7566 03-DEC-81 3000
-NA-
7369 SMITH CLERK 20 7902 17-DEC-80 800
-NA-
7788 SCOTT ANALYST 20 7566
                                  09-DEC-82
                                          3000
-NA-
7876 ADAMS CLERK 20 7788
                                  12-JAN-83
                                          1100
-NA-
5 Rows Processed So Far...
______
Now Printing The Employees of Department : SALES
______
```

```
7698
      BLAKE
                MANAGER
                            30
                                  7839
                                           01-MAY-81
                                                     2850
-NA-
                            30
                                  7698
7654
    MARTIN SALESMAN
                                           28-SEP-81
                                                      1250
1400
7499 ALLEN SALESMAN 30
                                  7698
                                           20-FEB-81 1600
300
               SALESMAN 30
7844 TURNER
                                  7698
                                           08-SEP-81 1500
7900 JAMES
                CLERK
                          30
                                  7698
                                           03-DEC-81 950
-NA-
7521
      WARD
                SALESMAN 30
                                  7698
                                           22-FEB-81 1250
500
6 Rows Processed So Far...
Now Printing The Employees of Department : OPERATIONS
______
0 Rows Processed So Far...
PL/SQL procedure successfully completed.
SQL> cl scr
SQL> DECLARE
 2 CURSOR EmpCursor
 4 SELECT Ename, Sal
 5 FROM Emp;
 6 TYPE EmpCursorTableType
    IS TABLE OF
 8 EmpCursor%ROWTYPE
 9 INDEX BY BINARY_INTEGER;
 10 V_EmpTableType EmpCursorTableType;
 11 BEGIN
 12 IF NOT EmpCursor%ISOPEN
 13 THEN
 14 OPEN EmpCursor;
 15 ELSE
16 DBMS OUTPUT.PUT LINE('Cursor is Already Open Proceed With Result
Set Operation''s.');
 17 END IF;
 18 DECLARE
 19  V_TableIndex PLS_INTEGER := 0;
 21 DBMS_OUTPUT.PUT_LINE('Loading The Data From Context Area into
PL/SQL Tables Please Wait...');
 22 LOOP
 23 FETCH EmpCursor INTO V_EmpTableType(V_TableIndex).Ename,
V_EmpTableType(V_TableIndex).Sal;
 24 EXIT WHEN EmpCursor%NOTFOUND OR EmpCursor%NOTFOUND IS NULL;
 25  V_TableIndex := V_TableIndex + 1;
 26 END LOOP;
 27 DBMS_OUTPUT.PUT_LINE('Loading The Data into PL/SQL Tables is Done
Successfully...');
```

```
28 END:
 29 BEGIN
 30 DBMS OUTPUT_PUT_LINE('Displaying The Data From The Pl/SQL
Table...Please Wait...');
 31 FOR IndexVariable IN V_EmpTableType.FIRST .. V_EmpTableType.LAST
 32 LOOP
 33 DBMS OUTPUT.PUT LINE(V EmpTableType(IndexVariable).Ename |  ' is
Fixed With A Salary of ' | | V_EmpTableType(IndexVariable).Sal);
 34 END LOOP;
 35 DBMS_OUTPUT.PUT_LINE('Displaying The Data From The Pl/SQL Table
Was Sucessfull...');
 36 DBMS_OUTPUT.PUT_LINE('The Total Records Processed Are
'||V_EmpTableType.COUNT);
 37 END;
 38 END;
 39 /
Loading The Data From Context Area into PL/SQL Tables Please Wait...
Loading The Data into PL/SQL Tables is Done Successfully...
Displaying The Data From The Pl/SQL Table...Please Wait...
KING is Fixed With A Salary of 5000
BLAKE is Fixed With A Salary of 2850
CLARK is Fixed With A Salary of 2450
JONES is Fixed With A Salary of 2975
MARTIN is Fixed With A Salary of 1250
ALLEN is Fixed With A Salary of 1600
TURNER is Fixed With A Salary of 1500
JAMES is Fixed With A Salary of 950
WARD is Fixed With A Salary of 1250
FORD is Fixed With A Salary of 3000
SMITH is Fixed With A Salary of 800
SCOTT is Fixed With A Salary of 3000
ADAMS is Fixed With A Salary of 1100
MILLER is Fixed With A Salary of 1300
Displaying The Data From The Pl/SQL Table Was Sucessfull...
The Total Records Processed Are 14
PL/SQL procedure successfully completed.
SQL> cl scr
SOL> DECLARE
  2 TYPE EmpTableType
  3 IS TABLE OF
  4 Emp%ROWTYPE;
    V_EmpTableType EmpTableType;
  6 BEGIN
  7 SELECT *
  8 BULK COLLECT INTO V EmpTableType
  9 FROM Emp;
 10 FOR IndexVariable IN V_EmpTableType.FIRST .. V_EmpTableType.LAST
 11 LOOP
    Fixed With A Salary of ' | | V_EmpTableType(IndexVariable).Sal);
 13 END LOOP;
 14 END;
        Document Generated By SkyEss Techno Solutions Pvt. Ltd.
```

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```
15 /
KING is Fixed With A Salary of 5000
BLAKE is Fixed With A Salary of 2850
CLARK is Fixed With A Salary of 2450
JONES is Fixed With A Salary of 2975
MARTIN is Fixed With A Salary of 1250
ALLEN is Fixed With A Salary of 1600
TURNER is Fixed With A Salary of 1500
JAMES is Fixed With A Salary of 950
WARD is Fixed With A Salary of 1250
FORD is Fixed With A Salary of 3000
SMITH is Fixed With A Salary of 800
SCOTT is Fixed With A Salary of 3000
ADAMS is Fixed With A Salary of 1100
MILLER is Fixed With A Salary of 1300
PL/SQL procedure successfully completed.
SQL> DECLARE
  2 TYPE MyArray IS
  3 TABLE OF
  4 Emp%ROWTYPE;
  5 V_MyArray MyArray;
  6 TYPE GenericCursor
    IS REF CURSOR;
  8 V_GenericCursor GenericCursor;
  9 BEGIN
 10 OPEN V GenericCursor FOR
 11 SELECT *
 12 FROM Emp;
 13 FETCH V GenericCursor BULK COLLECT INTO V MyArray;
 14 CLOSE V_GenericCursor;
 15 FOR LoopIndex IN 1 .. V_MyArray.Count
 16 LOOP
 17 DBMS_OUTPUT.PUT_LINE( TO_CHAR(LoopIndex, '09') || ') ' ||
V_MyArray(LoopIndex).Ename );
 18 END LOOP;
 19 END;
 20 /
01) KING
02) BLAKE
03) CLARK
04) JONES
05) MARTIN
06) ALLEN
07) TURNER
08) JAMES
09) WARD
10) FORD
11) SMITH
12) SCOTT
13) ADAMS
14) MILLER
```

PL/SQL procedure successfully completed.

SQL> cl scr