```
SQL> SELECT * FROM EMP;

    EMPNO ENAME         JOB                MGR HIREDATE        SAL          COMM DEPTNO
---------- ------------- ----------------- ---- ----------- -------- ------------------- ----------
     7935 SURESH        SALESMAN                                                            20
     7936 SUKESH        SALESMAN                                                            10
     7369 SMITH         CLERK             7902 17-DEC-80     800                             20
     7499 ALLEN         SALESMAN          7698 20-FEB-81    1600            300             30
     7521 WARD          SALESMAN          7698 22-FEB-81    1250            500             30
     7566 JONES         MANAGER           7839 02-APR-81    2975                             20
     7654 MARTIN        SALESMAN          7698 28-SEP-81    1250           1400             30
     7698 BLAKE         MANAGER           7839 01-MAY-81    2850                             30
     7782 CLARK         MANAGER           7839 09-JUN-81    2450                             10
     7788 SCOTT         ANALYST           7566 19-APR-87    3000                             20
     7839 KING          PRESIDENT              17-NOV-81    5000                             10

    EMPNO ENAME         JOB                MGR HIREDATE        SAL          COMM DEPTNO
---------- ------------- ----------------- ---- ----------- -------- ------------------- ----------
     7844 TURNER        SALESMAN          7698 08-SEP-81    1500              0             30
     7876 ADAMS         CLERK             7788 23-MAY-87    1100                             20
     7900 JAMES         CLERK             7698 03-DEC-81     950                             30
     7902 FORD          ANALYST           7566 03-DEC-81    3000                             20
     7934 MILLER        CLERK             7782 23-JAN-82    1300                             10

16 rows selected.

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE 'S%';

  EMPNO ENAME          JOB           MGR HIREDATE      SAL        COMM DEPTNO
------- --------------- ------------- ------------------------- ------------- ------------ ------------------------- ---------------
   7935 SURESH         SALESMAN                                                            20
   7936 SUKESH         SALESMAN                                                            10
   7369 SMITH          CLERK        7902 17-DEC-80    800                              20
   7788 SCOTT          ANALYST      7566 19-APR-87   3000                              20

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE 'S%H';

  EMPNO ENAME          JOB           MGR HIREDATE      SAL        COMM DEPTNO
------- --------------- ------------- ------------------------- ------------- ------------ ------------------------- ---------------
   7935 SURESH         SALESMAN                                                            20
   7936 SUKESH         SALESMAN                                                            10
   7369 SMITH          CLERK        7902 17-DEC-80    800                              20

SQL> ROLLBACK;

Rollback complete.

SQL> R
  1* ROLLBACK

Rollback complete.
```

```
SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE 'S%H';

   EMPNO ENAME      JOB             MGR HIREDATE          SAL       COMM DEPTNO
------- ---------------------- ------------- ----------------- ----------------- --------- ----------------- ----------
    7369 SMITH      CLERK          7902 17-DEC-80  800                         20

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '_';

no rows selected

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '__';

no rows selected

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '___';

no rows selected

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '____';

   EMPNO ENAME      JOB             MGR HIREDATE          SAL       COMM DEPTNO
------- ---------------------- ------------- ----------------- ----------------- --------- ----------------- ----------
    7521 WARD       SALESMAN       7698 22-FEB-81  1250         500     30
    7839 KING       PRESIDENT           17-NOV-81  5000                 10
    7902 FORD       ANALYST        7566 03-DEC-81  3000                 20

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '__A_';

no rows selected

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '__R_';

   EMPNO ENAME      JOB             MGR HIREDATE          SAL       COMM DEPTNO
------- ---------------------- ------------- ---------- ----------------- --------- ----------------- ----------
    7521 WARD       SALESMAN       7698 22-FEB-81  1250         500     30
    7902 FORD       ANALYST        7566 03-DEC-81  3000                 20

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '%A%';

   EMPNO ENAME      JOB             MGR HIREDATE          SAL       COMM DEPTNO
------- ---------------------- ------------- ---------- ----------------- --------- ----------------- ----------
    7499 ALLEN      SALESMAN       7698 20-FEB-81  1600         300     30
    7521 WARD       SALESMAN       7698 22-FEB-81  1250         500     30
    7654 MARTIN     SALESMAN       7698 28-SEP-81  1250        1400     30
    7698 BLAKE      MANAGER        7839 01-MAY-81  2850                 30
    7782 CLARK      MANAGER        7839 09-JUN-81  2450                 10
```

```
  7876 ADAMS           CLERK            7788 23-MAY-87  1100                        20
  7900 JAMES           CLERK            7698 03-DEC-81   950                        30

7 rows selected.

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '%A%A%';

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

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '%A%A';

no rows selected

SQL> SELECT * FROM EMP;

EMPNO ENAME           JOB               MGR HIREDATE     SAL       COMM DEPTNO
---------- --------------- ------------------ ------------------ ------------------ --------- ------------------ ----------
  7369 SMITH           CLERK            7902 17-DEC-80   800                        20
  7499 ALLEN           SALESMAN         7698 20-FEB-81  1600        300     30
  7521 WARD            SALESMAN         7698 22-FEB-81  1250        500     30
  7566 JONES           MANAGER          7839 02-APR-81  2975                        20
  7654 MARTIN          SALESMAN         7698 28-SEP-81  1250       1400     30
  7698 BLAKE           MANAGER          7839 01-MAY-81  2850                        30
  7782 CLARK           MANAGER          7839 09-JUN-81  2450                        10
  7788 SCOTT           ANALYST          7566 19-APR-87  3000                        20
  7839 KING            PRESIDENT             17-NOV-81  5000                        10
  7844 TURNER          SALESMAN         7698 08-SEP-81  1500          0     30
  7876 ADAMS           CLERK            7788 23-MAY-87  1100                        20

EMPNO ENAME           JOB               MGR HIREDATE     SAL       COMM DEPTNO
---------- --------------- ------------------ ------------------ ------------------ --------- ------------------ ----------
  7900 JAMES           CLERK            7698 03-DEC-81   950                        30
  7902 FORD            ANALYST          7566 03-DEC-81  3000                        20
  7934 MILLER          CLERK            7782 23-JAN-82  1300                        10

14 rows selected.

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE '%MAN%';

no rows selected

SQL> SELECT * FROM EMP
  2  WHERE JOB LIKE '%MAN%';

EMPNO ENAME           JOB               MGR HIREDATE     SAL       COMM DEPTNO
------- --------------- ------------------ ------------------ ------------------ --------- ------------------ ----------
  7499 ALLEN           SALESMAN         7698 20-FEB-81  1600        300     30
  7521 WARD            SALESMAN         7698 22-FEB-81  1250        500     30
  7566 JONES           MANAGER          7839 02-APR-81  2975                        20
```

```
    7654 MARTIN       SALESMAN       7698 28-SEP-81  1250          1400       30
    7698 BLAKE        MANAGER        7839 01-MAY-81  2850                     30
    7782 CLARK        MANAGER        7839 09-JUN-81  2450                     10
    7844 TURNER       SALESMAN       7698 08-SEP-81  1500             0       30

7 rows selected.

SQL> SELECT * FROM EMP
  2  WHERE JOB LIKE 'MAN%';

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

SQL> SELECT * FROM EMP
  2  WHERE JOB LIKE '%MAN';

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

SQL> SELECT * FROM EMP
  2  WHERE JOB NOT LIKE '%MAN';

EMPNO ENAME        JOB            MGR HIREDATE     SAL      COMM DEPTNO
---------- ------------------ ------------------ ------------------ ------------------ --------            ----------
    7369 SMITH        CLERK          7902 17-DEC-80   800                     20
    7566 JONES        MANAGER        7839 02-APR-81  2975                     20
    7698 BLAKE        MANAGER        7839 01-MAY-81  2850                     30
    7782 CLARK        MANAGER        7839 09-JUN-81  2450                     10
    7788 SCOTT        ANALYST        7566 19-APR-87  3000                     20
    7839 KING         PRESIDENT           17-NOV-81  5000                     10
    7876 ADAMS        CLERK          7788 23-MAY-87  1100                     20
    7900 JAMES        CLERK          7698 03-DEC-81   950                     30
    7902 FORD         ANALYST        7566 03-DEC-81  3000                     20
    7934 MILLER       CLERK          7782 23-JAN-82  1300                     10

10 rows selected.

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE 'SM%';

EMPNO ENAME        JOB            MGR HIREDATE     SAL      COMM DEPTNO
-------- ---------------------- ------------- ------------------ ------------------ -------- ------------------ ----------
    7369 SMITH        CLERK          7902 17-DEC-80   800                     20

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

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

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


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

SQL> SELECT * FROM EMP
  2  WHERE ENAME LIKE 'SM%';


EMPNO ENAME        JOB            MGR HIREDATE       SAL        COMM DEPTNO
------- ------------------ -------------- ------------ ------------------ -------- ------------------ --------
  7369 SMITH        CLERK         7902 17-DEC-80  800                   20

SQL> SELECT * FROM EMP
  2  WHERE 'SM%' LIKE ENAME;

no rows selected

SQL> SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP;

ENAME        DEPTNO HIREDATE
---------------- --------- ----------------
SMITH           20 17-DEC-80
ALLEN           30 20-FEB-81
WARD            30 22-FEB-81
JONES           20 02-APR-81
MARTIN          30 28-SEP-81
BLAKE           30 01-MAY-81
CLARK           10 09-JUN-81
SCOTT           20 19-APR-87
KING            10 17-NOV-81
TURNER          30 08-SEP-81
ADAMS           20 23-MAY-87

ENAME        DEPTNO HIREDATE
---------------- --------- ----------------
JAMES           30 03-DEC-81
FORD            20 03-DEC-81
MILLER          10 23-JAN-82

14 rows selected.

SQL> SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
```

```
  3  WHERE HIREDATE LIKE '%-%-81';

ENAME          DEPTNO HIREDATE
---------------- --------- ------------------
ALLEN             30 20-FEB-81
WARD              30 22-FEB-81
JONES             20 02-APR-81
MARTIN            30 28-SEP-81
BLAKE             30 01-MAY-81
CLARK             10 09-JUN-81
KING              10 17-NOV-81
TURNER            30 08-SEP-81
JAMES             30 03-DEC-81
FORD              20 03-DEC-81

10 rows  selected.

SQL> SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
  3  WHERE HIREDATE LIKE '03-DEC-81';

ENAME          DEPTNO HIREDATE
-------------- --------- --------------------
JAMES             30 03-DEC-81
FORD              20 03-DEC-81

SQL> ED
Wrote file afiedt.buf

  1  SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
  3* WHERE HIREDATE LIKE '03-DEC-2081'
SQL> /

no rows selected

SQL> ED
Wrote file afiedt.buf

  1  SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
  3* WHERE HIREDATE LIKE '03-DEC-81'
SQL> /

ENAME          DEPTNO HIREDATE
-------------- --------- --------------------
JAMES             30 03-DEC-81
FORD              20 03-DEC-81

SQL> ED
Wrote file afiedt.buf

  1  SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
```

```
  3* WHERE HIREDATE LIKE '03-DEC-1981'
SQL> /

no rows selected

SQL> SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
  3  WHERE HIREDATE = '03-DEC-1981';

ENAME          DEPTNO HIREDATE
-------------- --------- ---------------------
JAMES              30 03-DEC-81
FORD               20 03-DEC-81

SQL> SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
  3  WHERE HIREDATE LIKE '%-DEC-%';

ENAME          DEPTNO HIREDATE
-------------- --------- ---------------------
SMITH              20 17-DEC-80
JAMES              30 03-DEC-81
FORD               20 03-DEC-81

SQL> SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
  3  WHERE HIREDATE LIKE '%-DECEMBER-%';

no rows selected

SQL> SELECT ENAME, DEPTNO, HIREDATE
  2  FROM EMP
  3  WHERE HIREDATE = '03-DECEMBER-81';

ENAME          DEPTNO HIREDATE
-------------- --------- ---------------------
JAMES              30 03-DEC-81
FORD               20 03-DEC-81

SQL> SELECT * FROM DEPT;

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

SQL> INSERT INTO DEPT
  2  VALUES(50,'SHIPPING_BASE','CHENNAI');

1 row created.

SQL> INSERT INTO DEPT
```

```
  2  VALUES(60,'CARGO%DECK','MUMBAI');

1 row created.

SQL> INSERT INTO DEPT
  2  VALUES(70,'COURIER%RACK','DELHI');

1 row created.

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%_%';

DEPTNO DNAME                LOC
------------ ------------------------- -------------------------
    50 SHIPPING_BASE   CHENNAI
    60 CARGO%DECK      MUMBAI
    70 COURIER%RACK    DELHI
    10 ACCOUNTING      NEW YORK
    20 RESEARCH        DALLAS
    30 SALES           CHICAGO
    40 OPERATIONS      BOSTON

7 rows selected.

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%\_%';

no rows selected

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%\_%' ESCAPE '\';

DEPTNO DNAME                LOC
--------- -------------------- ------------------
    50 SHIPPING_BASE   CHENNAI

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%%%';

DEPTNO DNAME                LOC
------------ ------------------------- -------------------------
    50 SHIPPING_BASE   CHENNAI
    60 CARGO%DECK      MUMBAI
    70 COURIER%RACK    DELHI
    10 ACCOUNTING      NEW YORK
    20 RESEARCH        DALLAS
    30 SALES           CHICAGO
    40 OPERATIONS      BOSTON

7 rows selected.

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%\%%';
```

```
no rows selected

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%\%%' ESCAPE '\';

DEPTNO DNAME              LOC
-------- ------------------- ------------------
    60 CARGO%DECK          MUMBAI
    70 COURIER%RACK        DELHI

 SQL> DELETE FROM DEPT
  2  WHERE DEPTNO=70;

1 row deleted.

SQL> INSERT INTO DEPT
  2  VALUES(70,'COURIER\RACK','DELHI');

1 row created.

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%@%%' ESCAPE '@';

DEPTNO DNAME              LOC
-------- ------------------- ------------------
    60 CARGO%DECK          MUMBAI

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%__%' ESCAPE '_';

DEPTNO DNAME              LOC
-------- ------------------- ------------------
    50 SHIPPING_BASE  CHENNAI

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%%%%' ESCAPE '%';

no rows selected

SQL> SELECT * FROM DEPT
  2  WHERE DNAME LIKE '%\\%' ESCAPE '\';

DEPTNO DNAME              LOC
-------- ------------------- ------------------
    70 COURIER\RACK        DELHI

SQL> --ORDERING THE DATA BY USING ORDER BY CLAUSE
SQL> SELECT ENAME FROM EMP;

ENAME
--------------
SMITH
ALLEN
WARD
```

```
JONES
MARTIN
BLAKE
CLARK
SCOTT
KING
TURNER
ADAMS

ENAME
---------------
JAMES
FORD
MILLER

14 rows selected.

SQL> SELECT ENAME,SAL FROM EMP;

ENAME             SAL
--------------- -------
SMITH             800
ALLEN            1600
WARD             1250
JONES            2975
MARTIN           1250
BLAKE            2850
CLARK            2450
SCOTT            3000
KING             5000
TURNER           1500
ADAMS            1100

ENAME             SAL
--------------- -------
JAMES             950
FORD             3000
MILLER           1300

14 rows selected.

SQL> SELECT ENAME FROM EMP
  2  ORDER BY ENAME;

ENAME
---------------
ADAMS
ALLEN
BLAKE
CLARK
FORD
JAMES
JONES
KING
```

```
MARTIN
MILLER
SCOTT

ENAME
---------------
SMITH
TURNER
WARD

14 rows selected.

SQL> SELECT SAL FROM EMP
  2  ORDER BY SAL ;

     SAL
--------
     800
     950
    1100
    1250
    1250
    1300
    1500
    1600
    2450
    2850
    2975

     SAL
--------
    3000
    3000
    5000

14 rows selected.

SQL> SELECT SAL FROM EMP
  2  ORDER BY SAL DESC;

     SAL
--------
    5000
    3000
    3000
    2975
    2850
    2450
    1600
    1500
    1300
    1250
    1250
```

```
     SAL
---------
    1100
     950
     800

14 rows selected.

SQL> SELECT HIREDATE FROM EMP
  2  ORDER BY HIREDATE ASC;

HIREDATE
-------------
17-DEC-80
20-FEB-81
22-FEB-81
02-APR-81
01-MAY-81
09-JUN-81
08-SEP-81
28-SEP-81
17-NOV-81
03-DEC-81
03-DEC-81

HIREDATE
-------------
23-JAN-82
19-APR-87
23-MAY-87

14 rows selected.

SQL> SELECT HIREDATE FROM EMP
  2  ORDER BY HIREDATE DESC;

HIREDATE
-------------
23-MAY-87
19-APR-87
23-JAN-82
03-DEC-81
03-DEC-81
17-NOV-81
28-SEP-81
08-SEP-81
09-JUN-81
01-MAY-81
02-APR-81

HIREDATE
-------------
22-FEB-81
20-FEB-81
```

```
17-DEC-80

14 rows selected.

SQL> SELECT DEPTNO FROM EMP
  2  ORDER BY DEPTNO;

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

DEPTNO
---------
      30
      30
      30

14 rows selected.

SQL> SELECT ENAME,SAL FROM EMP;

ENAME           SAL
-------------- -------
SMITH           800
ALLEN          1600
WARD           1250
JONES          2975
MARTIN         1250
BLAKE          2850
CLARK          2450
SCOTT          3000
KING           5000
TURNER         1500
ADAMS          1100

ENAME           SAL
-------------- -------
JAMES           950
FORD           3000
MILLER         1300

14 rows selected.

SQL> SELECT ENAME,SAL FROM EMP
```

```
  2  ORDER BY SAL;

ENAME            SAL
----------------  -------
SMITH            800
JAMES            950
ADAMS            1100
WARD             1250
MARTIN           1250
MILLER           1300
TURNER           1500
ALLEN            1600
CLARK            2450
BLAKE            2850
JONES            2975

ENAME            SAL
----------------  -------
SCOTT            3000
FORD             3000
KING             5000

14 rows selected.

SQL> SELECT ENAME,DEPTNO,JOB,SAL
  2  FROM EMP
  3  ORDER BY SAL;

ENAME          DEPTNO JOB               SAL
----------------  --------- ---------------- ----------
SMITH             20 CLERK            800
JAMES             30 CLERK            950
ADAMS             20 CLERK            1100
WARD              30 SALESMAN         1250
MARTIN            30 SALESMAN         1250
MILLER            10 CLERK            1300
TURNER            30 SALESMAN         1500
ALLEN             30 SALESMAN         1600
CLARK             10 MANAGER          2450
BLAKE             30 MANAGER          2850
JONES             20 MANAGER          2975

ENAME          DEPTNO JOB               SAL
----------------  --------- ---------------- ----------
SCOTT             20 ANALYST          3000
FORD              20 ANALYST          3000
KING              10 PRESIDENT        5000

14 rows  selected.

SQL> SELECT ENAME,DEPTNO,JOB,SAL
  2  FROM EMP
  3  ORDER BY DEPTNO;
```

```
ENAME            DEPTNO JOB              SAL
---------------- --------- ---------------- ----------
CLARK               10 MANAGER         2450
KING                10 PRESIDENT       5000
MILLER              10 CLERK           1300
JONES               20 MANAGER         2975
FORD                20 ANALYST         3000
ADAMS               20 CLERK           1100
SMITH               20 CLERK            800
SCOTT               20 ANALYST         3000
WARD                30 SALESMAN        1250
TURNER              30 SALESMAN        1500
ALLEN               30 SALESMAN        1600

ENAME            DEPTNO JOB              SAL
---------------- --------- ---------------- ----------
JAMES               30 CLERK            950
BLAKE               30 MANAGER         2850
MARTIN              30 SALESMAN        1250

14 rows  selected.

SQL> SELECT ENAME,DEPTNO,JOB,SAL
  2   FROM EMP
  3   ORDER BY DEPTNO,SAL DESC;

ENAME            DEPTNO JOB              SAL
---------------- --------- ---------------- ----------
KING                10 PRESIDENT       5000
CLARK               10 MANAGER         2450
MILLER              10 CLERK           1300
SCOTT               20 ANALYST         3000
FORD                20 ANALYST         3000
JONES               20 MANAGER         2975
ADAMS               20 CLERK           1100
SMITH               20 CLERK            800
BLAKE               30 MANAGER         2850
ALLEN               30 SALESMAN        1600
TURNER              30 SALESMAN        1500

ENAME            DEPTNO JOB              SAL
---------------- --------- ---------------- ----------
MARTIN              30 SALESMAN        1250
WARD                30 SALESMAN        1250
JAMES               30 CLERK            950

14 rows  selected.

SQL> SELECT ENAME,DEPTNO,JOB,SAL
  2   FROM EMP
  3   ORDER BY DEPTNO,SAL;

ENAME            DEPTNO JOB              SAL
--------------- --------- -------------------- --------
```

```
MILLER              10 CLERK        1300
CLARK               10 MANAGER      2450
KING                10 PRESIDENT    5000
SMITH               20 CLERK         800
ADAMS               20 CLERK        1100
JONES               20 MANAGER      2975
SCOTT               20 ANALYST      3000
FORD                20 ANALYST      3000
JAMES               30 CLERK         950
MARTIN              30 SALESMAN     1250
WARD                30 SALESMAN     1250


ENAME           DEPTNO JOB              SAL
---------------- --------- ---------------- ----------
TURNER              30 SALESMAN     1500
ALLEN               30 SALESMAN     1600
BLAKE               30 MANAGER      2850

14 rows  selected.

SQL> SELECT ENAME,DEPTNO,JOB,SAL
  2  FROM EMP
  3  ORDER BY DEPTNO,SAL,ENAME DESC;

ENAME           DEPTNO JOB              SAL
---------------- --------- ---------------- ----------
MILLER              10 CLERK        1300
CLARK               10 MANAGER      2450
KING                10 PRESIDENT    5000
SMITH               20 CLERK         800
ADAMS               20 CLERK        1100
JONES               20 MANAGER      2975
SCOTT               20 ANALYST      3000
FORD                20 ANALYST      3000
JAMES               30 CLERK         950
WARD                30 SALESMAN     1250
MARTIN              30 SALESMAN     1250


ENAME           DEPTNO JOB              SAL
---------------- --------- ---------------- ----------
TURNER              30 SALESMAN     1500
ALLEN               30 SALESMAN     1600
BLAKE               30 MANAGER      2850

14 rows  selected.

SQL> ED
Wrote file afiedt.buf

  1  SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
  2  FROM EMP
  3* ORDER BY SAL+NVL(COMM,0)
SQL> /
```

```
ENAME            DEPTNO    SAL        COMM        TOTSAL
----------------  ---------  --------  ---------------------  -------------------
SMITH               20     800                               800
JAMES               30     950                               950
ADAMS               20    1100                              1100
MILLER              10    1300                              1300
TURNER              30    1500             0                 1500
WARD                30    1250           500                 1750
ALLEN               30    1600           300                 1900
CLARK               10    2450                              2450
MARTIN              30    1250          1400                 2650
BLAKE               30    2850                              2850
JONES               20    2975                              2975

ENAME            DEPTNO    SAL        COMM        TOTSAL
----------------  ---------  --------  ---------------------  -------------------
FORD                20    3000                              3000
SCOTT               20    3000                              3000
KING                10    5000                              5000

14 rows selected.

SQL> ED
Wrote file afiedt.buf

  1   SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
  2   FROM EMP
  3*  ORDER BY SAL+NVL(COMM,0) DESC
SQL> /

ENAME            DEPTNO    SAL        COMM        TOTSAL
----------------  ---------  --------  ---------------------  -------------------
KING                10    5000                              5000
FORD                20    3000                              3000
SCOTT               20    3000                              3000
JONES               20    2975                              2975
BLAKE               30    2850                              2850
MARTIN              30    1250          1400                 2650
CLARK               10    2450                              2450
ALLEN               30    1600           300                 1900
WARD                30    1250           500                 1750
TURNER              30    1500             0                 1500
MILLER              10    1300                              1300

ENAME            DEPTNO    SAL        COMM        TOTSAL
----------------  ---------  --------  ---------------------  -------------------
ADAMS               20    1100                              1100
JAMES               30     950                               950
SMITH               20     800                               800

14 rows selected.

SQL> ED
Wrote file afiedt.buf
```

```
    1  SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
    2  FROM EMP
    3* ORDER BY TOTSAL
SQL> /

ENAME          DEPTNO    SAL       COMM        TOTSAL
-------------  --------- --------- ----------- -------------
SMITH             20     800                       800
JAMES             30     950                       950
ADAMS             20    1100                      1100
MILLER            10    1300                      1300
TURNER            30    1500         0            1500
WARD              30    1250       500            1750
ALLEN             30    1600       300            1900
CLARK             10    2450                      2450
MARTIN            30    1250      1400            2650
BLAKE             30    2850                      2850
JONES             20    2975                      2975

ENAME          DEPTNO    SAL       COMM        TOTSAL
-------------  --------- --------- ----------- -------------
FORD              20    3000                      3000
SCOTT             20    3000                      3000
KING              10    5000                      5000

14 rows  selected.

SQL> ED
Wrote file afiedt.buf

    1  SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
    2  FROM EMP
    3* ORDER BY HIREDATE
SQL> /

ENAME          DEPTNO    SAL       COMM        TOTSAL
-------------  --------- --------- ----------- -------------
SMITH             20     800                       800
ALLEN             30    1600       300            1900
WARD              30    1250       500            1750
JONES             20    2975                      2975
BLAKE             30    2850                      2850
CLARK             10    2450                      2450
TURNER            30    1500         0            1500
MARTIN            30    1250      1400            2650
KING              10    5000                      5000
JAMES             30     950                       950
FORD              20    3000                      3000

ENAME          DEPTNO    SAL       COMM        TOTSAL
-------------  --------- --------- ----------- -------------
MILLER            10    1300                      1300
SCOTT             20    3000                      3000
```

```
ADAMS              20  1100                      1100

14 rows selected.

SQL> ED
Wrote file afiedt.buf

  1   SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
  2   FROM EMP
  3*  ORDER BY 1
SQL> /

ENAME          DEPTNO     SAL        COMM      TOTSAL
---------------  ---------  ---------  --------------------  ------------------
ADAMS              20  1100                      1100
ALLEN              30  1600        300           1900
BLAKE              30  2850                      2850
CLARK              10  2450                      2450
FORD               20  3000                      3000
JAMES              30   950                       950
JONES              20  2975                      2975
KING               10  5000                      5000
MARTIN             30  1250       1400           2650
MILLER             10  1300                      1300
SCOTT              20  3000                      3000

ENAME          DEPTNO     SAL        COMM      TOTSAL
---------------  ---------  ---------  --------------------  ------------------
SMITH              20   800                       800
TURNER             30  1500          0           1500
WARD               30  1250        500           1750

14 rows  selected.

SQL> ED
Wrote file afiedt.buf

  1   SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
  2   FROM EMP
  3*  ORDER BY 2 DESC
SQL> /

ENAME              DEPTNO     SAL        COMM      TOTSAL
---------------------  -----------  ---------  --------------------  ------------------
BLAKE              30  2850                      2850
TURNER             30  1500          0           1500
ALLEN              30  1600        300           1900
MARTIN             30  1250       1400           2650
WARD               30  1250        500           1750
JAMES              30   950                       950
SCOTT              20  3000                      3000
JONES              20  2975                      2975
SMITH              20   800                       800
ADAMS              20  1100                      1100
```

```
FORD              20   3000                        3000

ENAME          DEPTNO    SAL        COMM        TOTSAL
--------------- --------- --------- ------------------ -----------------
KING              10   5000                        5000
MILLER            10   1300                        1300
CLARK             10   2450                        2450

14 rows  selected.

SQL> ED
Wrote file afiedt.buf

  1   SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
  2   FROM EMP
  3*  ORDER BY 4 DESC
SQL> /

ENAME          DEPTNO    SAL        COMM        TOTSAL
--------------- --------- --------- ------------------ -----------------
SMITH             20    800                         800
CLARK             10   2450                        2450
FORD              20   3000                        3000
JAMES             30    950                         950
ADAMS             20   1100                        1100
JONES             20   2975                        2975
BLAKE             30   2850                        2850
MILLER            10   1300                        1300
SCOTT             20   3000                        3000
KING              10   5000                        5000
MARTIN            30   1250        1400            2650

ENAME          DEPTNO    SAL        COMM        TOTSAL
--------------- --------- --------- ------------------ -----------------
WARD              30   1250         500            1750
ALLEN             30   1600         300            1900
TURNER            30   1500           0            1500

14 rows  selected.

SQL> ED
Wrote file afiedt.buf

  1   SELECT ENAME,DEPTNO,SAL,COMM,SAL+NVL(COMM,0) TOTSAL
  2   FROM EMP
  3*  ORDER BY 5 DESC
SQL> /

ENAME          DEPTNO    SAL        COMM        TOTSAL
-------------------- ----------- --------- ------------------ -----------------
KING              10   5000                        5000
FORD              20   3000                        3000
SCOTT             20   3000                        3000
JONES             20   2975                        2975
```

```
BLAKE               30   2850                        2850
MARTIN              30   1250         1400            2650
CLARK               10   2450                         2450
ALLEN               30   1600          300            1900
WARD                30   1250          500            1750
TURNER              30   1500            0            1500
MILLER              10   1300                         1300


ENAME           DEPTNO     SAL       COMM         TOTSAL
----------------    ---------  -------- --------------------  ------------------
ADAMS               20   1100                        1100
JAMES               30    950                         950
SMITH               20    800                         800


14 rows  selected.


SQL> ED
Wrote file afiedt.buf

    1   SELECT ENAME,DEPTNO,SAL,SAL+NVL(COMM,0) TOTSAL
    2   FROM EMP
    3*  ORDER BY 5 DESC
SQL> /
ORDER BY 5 DESC
        *
ERROR at line 3:
ORA-01785: ORDER BY item must be the number of a SELECT-list expression


SQL> SELECT
    2   ENAME,
    3   DEPTNO,
    4   JOB,
    5   SAL,
    6   COMM,
    7   SAL+NVL(COMM,0) TOTSAL
    8   FROM EMP
    9   ORDER BY 4 DESC ,2,1;


ENAME           DEPTNO JOB           SAL       COMM         TOTSAL
--------------------  ------------ ----------------- ----------  -------------------- --------------------
KING                10 PRESIDENT   5000                         5000
FORD                20 ANALYST     3000                         3000
SCOTT               20 ANALYST     3000                         3000
JONES               20 MANAGER     2975                         2975
BLAKE               30 MANAGER     2850                         2850
CLARK               10 MANAGER     2450                         2450
ALLEN               30 SALESMAN    1600          300            1900
TURNER              30 SALESMAN    1500            0            1500
MILLER              10 CLERK       1300                         1300
MARTIN              30 SALESMAN    1250         1400            2650
WARD                30 SALESMAN    1250          500            1750


ENAME           DEPTNO JOB           SAL       COMM         TOTSAL
```

```
---------------- --------- ------------------------ -------- --------------- ---------------
ADAMS              20 CLERK      1100                                    1100
JAMES              30 CLERK       950                                     950
SMITH              20 CLERK       800                                     800

14 rows selected.

SQL> SPOOL OFF
```