```
SQL> --WHERE  DEPTNO =30  --COMPONENT WHERE CLASUE OR NON-PAIRWISE
COMPARISION
SQL> --WHERE (DEPTNO, SAL) IN (SELECT DEPTNO, MAX(SAL)....)   --COMPOUND
WHERE CLAUSE OR PAIRWISE COMPARISION
SQL>
SQL> --Rule01: The No. Of Columns in the WHERE Clause to The No. of
Columns in The Subquery should be equal
SQL> --Rule02: The DataTypes Of The Corresponding Columns Should Match
SQL> --Rule03: The Only Operator should be Used is "IN" Operator
SQL> SELECT DEPTNO,MAX(SAL)
  2  FROM EMP
  3  GROUP BY DEPTNO;

    DEPTNO   MAX(SAL)
---------- ----------
        30       2850
        20       3000
        10       5000

SQL> SELECT ENAME,DEPTNO,SAL
  2  FROM EMP
  3  WHERE (DEPTNO,SAL) IN
  4  (
  5  SELECT DEPTNO,MAX(SAL)
  6  FROM EMP
  7  GROUP BY DEPTNO
  8  );

ENAME          DEPTNO        SAL
---------- ---------- ----------
BLAKE              30       2850
SCOTT             20       3000
FORD              20       3000
KING              10       5000

SQL> SELECT ENAME,DEPTNO,SAL
  2  FROM EMP
  3  WHERE DEPTNO IN
  4  (
  5  SELECT DEPTNO
  6  FROM EMP
  7  GROUP BY DEPTNO
  8  ) AND SAL IN
  9  (
 10  SELECT MAX(SAL)
 11  FROM EMP
 12  GROUP BY DEPTNO
 13  )
 14  ORDER BY DEPTNO
 15  /

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

```
KING                    10          5000
SCOTT                   20          3000
FORD                    20          3000
BLAKE                   30          2850

SQL> SELECT DEPTNO,MAX(SAL)
  2  FROM EMP
  3  GROUP BY DEPTNO;

    DEPTNO    MAX(SAL)
---------- ----------
        30        2850
        20        3000
        10        5000

SQL> INSERT INTO EMP(EMPNO,ENAME,DEPTNO,SAL)
  2  VALUES(7935,'RAJU',10,3000);

1 row created.

SQL> INSERT INTO EMP(EMPNO,ENAME,DEPTNO,SAL)
  2  VALUES(7936,'RAMU',10,2850);

1 row created.

SQL> INSERT INTO EMP(EMPNO,ENAME,DEPTNO,SAL)
  2  VALUES(7937,'RAKESH',20,2850);

1 row created.

SQL> SELECT ENAME,DEPTNO,SAL
  2  FROM EMP
  3  WHERE (DEPTNO,SAL) IN
  4  (
  5  SELECT DEPTNO,MAX(SAL)
  6  FROM EMP
  7  GROUP BY DEPTNO
  8  )
  9  ORDER BY DEPTNO
 10  /

ENAME          DEPTNO        SAL
---------- ---------- ----------
KING               10       5000
FORD               20       3000
SCOTT              20       3000
BLAKE              30       2850

SQL> SELECT ENAME,DEPTNO,SAL
  2  FROM EMP
  3  WHERE DEPTNO IN
  4  (
  5  SELECT DEPTNO
```

```
  6   FROM EMP
  7   GROUP BY DEPTNO
  8   ) AND SAL IN
  9   (
 10   SELECT MAX(SAL)
 11   FROM EMP
 12   GROUP BY DEPTNO
 13   )
 14   ORDER BY DEPTNO
 15   /

ENAME            DEPTNO         SAL
---------- ---------- ----------
RAJU               10        3000
KING               10        5000
RAMU               10        2850
FORD               20        3000
SCOTT              20        3000
RAKESH             20        2850
BLAKE              30        2850

7 rows selected.

SQL> SELECT ENAME,DEPTNO,SAL
  2   FROM EMP
  3   WHERE (DEPTNO,SAL) IN
  4   (
  5   SELECT DEPTNO,MIN(SAL)
  6   FROM EMP
  7   GROUP BY DEPTNO
  8   )
  9   ORDER BY DEPTNO
 10   /

ENAME            DEPTNO         SAL
---------- ---------- ----------
MILLER             10        1300
SMITH              20         800
JAMES              30         950

SQL> SELECT ENAME,DEPTNO,JOB,SAL
  2   FROM EMP
  3   WHERE (JOB,SAL) IN
  4   (
  5   SELECT JOB,MIN(SAL)
  6   FROM EMP
  7   GROUP BY JOB
  8   )
  9   ORDER BY DEPTNO
 10   /

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

```
KING                  10 PRESIDENT        5000
CLARK                 10 MANAGER          2450
FORD                  20 ANALYST          3000
SMITH                 20 CLERK             800
SCOTT                 20 ANALYST          3000
MARTIN                30 SALESMAN         1250
WARD                  30 SALESMAN         1250

7 rows selected.

SQL> SELECT ENAME,DEPTNO,JOB,SAL
  2  FROM EMP
  3  WHERE (JOB,SAL) IN
  4  (
  5  SELECT JOB,MAX(SAL)
  6  FROM EMP
  7  GROUP BY JOB
  8  )
  9  ORDER BY DEPTNO
 10  /

ENAME          DEPTNO JOB              SAL
---------- ---------- --------- ----------
KING               10 PRESIDENT        5000
MILLER             10 CLERK           1300
JONES              20 MANAGER         2975
FORD               20 ANALYST         3000
SCOTT              20 ANALYST         3000
ALLEN              30 SALESMAN        1600

6 rows selected.

SQL> SELECT ENAME,TO_CHAR(HIREDATE,'YYYY') YEAR, SAL
  2  FROM EMP
  3  WHERE (TO_CHAR(HIREDATE,'YYYY'),SAL) IN
  4  (
  5  SELECT TO_CHAR(HIREDATE,'YYYY'),MAX(SAL)
  6  FROM EMP
  7  GROUP BY TO_CHAR(HIREDATE,'YYYY')
  8  )
  9  ORDER BY 2;

ENAME      YEAR       SAL
---------- ---- ----------
SMITH      1980        800
KING       1981       5000
SCOTT      1982       3000
ADAMS      1983       1100

SQL> SELECT ENAME,TO_CHAR(HIREDATE,'YYYY') YEAR, SAL
  2  FROM EMP
  3  WHERE (TO_CHAR(HIREDATE,'YYYY'),SAL) IN
  4  (
```

```
    5  SELECT TO_CHAR(HIREDATE,'YYYY'),MIN(SAL)
    6  FROM EMP
    7  GROUP BY TO_CHAR(HIREDATE,'YYYY')
    8  )
    9  ORDER BY 2;


ENAME       YEAR        SAL
---------- ---- ----------
SMITH      1980        800
JAMES      1981        950
MILLER     1982       1300
ADAMS      1983       1100

SQL> SELECT ENAME,TO_CHAR(HIREDATE,'MONTH') MONTH, SAL
    2  FROM EMP
    3  WHERE (TO_CHAR(HIREDATE,'MONTH'),SAL) IN
    4  (
    5  SELECT TO_CHAR(HIREDATE,'MONTH'),MAX(SAL)
    6  FROM EMP
    7  GROUP BY TO_CHAR(HIREDATE,'MONTH')
    8  )
    9  ORDER BY 2;


ENAME       MONTH            SAL
---------- --------- ----------
JONES      APRIL           2975
FORD       DECEMBER        3000
SCOTT      DECEMBER        3000
ALLEN      FEBRUARY        1600
MILLER     JANUARY         1300
CLARK      JUNE            2450
BLAKE      MAY             2850
KING       NOVEMBER        5000
TURNER     SEPTEMBER       1500

9 rows selected.

SQL> SELECT ENAME,TO_CHAR(HIREDATE,'MONTH') MONTH, SAL
    2  FROM EMP
    3  WHERE (TO_CHAR(HIREDATE,'MONTH'),SAL) IN
    4  (
    5  SELECT TO_CHAR(HIREDATE,'MONTH'),MIN(SAL)
    6  FROM EMP
    7  GROUP BY TO_CHAR(HIREDATE,'MONTH')
    8  )
    9  ORDER BY 2;


ENAME       MONTH            SAL
---------- --------- ----------
JONES      APRIL           2975
JAMES      DECEMBER         950
WARD       FEBRUARY        1250
ADAMS      JANUARY         1100
```

```
CLARK       JUNE             2450
BLAKE       MAY              2850
SMITH       NOVEMBER          800
MARTIN      SEPTEMBER        1250

8 rows selected.

SQL> SELECT ENAME,TO_CHAR(HIREDATE,'YYYY') YEAR,TO_CHAR(HIREDATE,'MONTH')
MONTH, SAL
  2   FROM EMP
  3   WHERE (TO_CHAR(HIREDATE,'YYYY'),TO_CHAR(HIREDATE,'MONTH'),SAL) IN
  4   (
  5   SELECT TO_CHAR(HIREDATE,'YYYY'),TO_CHAR(HIREDATE,'MONTH'),MAX(SAL)
  6   FROM EMP
  7   GROUP BY TO_CHAR(HIREDATE,'YYYY'),TO_CHAR(HIREDATE,'MONTH')
  8   )
  9   ORDER BY 2;

ENAME       YEAR MONTH            SAL
---------- ---- --------- ----------
SMITH       1980 NOVEMBER          800
FORD        1981 DECEMBER         3000
KING        1981 NOVEMBER         5000
BLAKE       1981 MAY             2850
CLARK       1981 JUNE            2450
JONES       1981 APRIL           2975
ALLEN       1981 FEBRUARY        1600
TURNER      1981 SEPTEMBER       1500
MILLER      1982 JANUARY         1300
SCOTT       1982 DECEMBER        3000
ADAMS       1983 JANUARY         1100

11 rows selected.

SQL> SELECT
  2   ENAME,
  3   TO_CHAR(HIREDATE,'YYYY') YEAR,
  4   TO_CHAR(HIREDATE,'MONTH') MONTH,
  5   SAL
  6   FROM EMP
  7   WHERE (TO_CHAR(HIREDATE,'YYYY'),TO_CHAR(HIREDATE,'MONTH'),SAL) IN
  8   (
  9   SELECT TO_CHAR(HIREDATE,'YYYY'),TO_CHAR(HIREDATE,'MONTH'),MIN(SAL)
 10   FROM EMP
 11   GROUP BY TO_CHAR(HIREDATE,'YYYY'),TO_CHAR(HIREDATE,'MONTH')
 12   )
 13   ORDER BY 2;

ENAME       YEAR MONTH            SAL
---------- ---- --------- ----------
SMITH       1980 NOVEMBER          800
JAMES       1981 DECEMBER          950
KING        1981 NOVEMBER         5000
```

```
BLAKE        1981 MAY            2850
CLARK        1981 JUNE           2450
MARTIN       1981 SEPTEMBER      1250
WARD         1981 FEBRUARY       1250
JONES        1981 APRIL          2975
MILLER       1982 JANUARY        1300
SCOTT        1982 DECEMBER       3000
ADAMS        1983 JANUARY        1100

11 rows selected.

SQL> SPOOL OFF
```