```
/*Option 1 using fetch option available only in 12c onwards but will not give correct result in
all cases*/

WITH cte1 AS
    (
    SELECT salary
    FROM employee
    ORDER BY salary DESC

 FETCH FIRST 2 ROWS ONLY
    )
SELECT salary
FROM cte1
ORDER BY salary
Fetch First 1 Rows
Only
/


/*Execution Plan
----------------------------------------------------------
Plan hash
value:
3552574730

--------------------------------------------------------------------------------
--
------

| Id  | Operation                   | Name     | Rows  | Bytes | Cost (%CPU)| Ti
me
|

--------------------------------------------------------------------------------
--------

|
  0 | SELECT STATEMENT            |          |     1 |    39 |     5  (40)| 00
:00:01 |

|*  1
|  VIEW                      |          |     1 |    39 |     5  (40)| 00
:00:01 |

|*  2 |
WINDOW SORT PUSHED RANK   |          |     2 |    26 |     5  (40)| 00
:00:01 |

|   3 |
VIEW                     |          |     2 |    26 |     4  (25)| 00
:00:01 |

|*  4 |
VIEW                     |          |     2 |    78 |     4  (25)| 00
:00:01 |

|*  5 |
WINDOW SORT PUSHED RANK|          |     2 |     6 |     4  (25)| 00
:00:01 |

|   6 |
TABLE ACCESS FULL     | EMPLOYEE |     2 |     6 |     3   (0)| 00
:00:01
|

--------------------------------------------------------------------------------
--------



Predicate Information (identified by operation
id):
---------------------------------------------------
```

```
   1 -
filter("from$_subquery$_004"."rowlimit_$$_rownumber"<=1)
   2 -
filter(ROW_NUMBER() OVER ( ORDER BY "SALARY")<=1)
   4 -
filter("from$_subquery$_002"."rowlimit_$$_rownumber"<=2)
   5 -
filter(ROW_NUMBER() OVER ( ORDER BY INTERNAL_FUNCTION("SALARY") DESC

)<=2)


Statistics
----------------------------------------------------------
          0
recursive calls
          0  db block gets
          7  consistent gets
          6  physical
reads
          0  redo size
        548  bytes sent via SQL*Net to client
        539  bytes
received via SQL*Net from client
          2  SQL*Net roundtrips to/from client
          2
sorts (memory)
          0  sorts (disk)
          1  rows
processed
*/

---------------------------------------------------------------------------------
------------------------------------
/*Option 2 using tradiontal style
*/
--------------------------------------------------------------------------------------------
-------------------------

SELECT MAX(salary)
    FROM employee a
    WHERE 2-1 = (SELECT
COUNT(DISTINCT salary)
                    FROM employee b WHERE b.salary > a.salary)

/

/*
Execution Plan
----------------------------------------------------------
Plan hash
value:
2852433624

--------------------------------------------------------------------------------
-


| Id  | Operation            | Name     | Rows  | Bytes | Cost (%CPU)|
Time
|

--------------------------------------------------------------------------------
-

|
0 | SELECT STATEMENT     |          |     1 |     3 |     6   (0)| 00:00:01
|

|   1 |  SORT
AGGREGATE      |          |     1 |     3 |            |
|

|*  2 |   FILTER             |
    |       |       |            |
|

|   3 |    TABLE ACCESS FULL | EMPLOYEE |     2 |     6 |
    3   (0)| 00:00:01
|

|   4 |    SORT GROUP BY     |          |     1 |     3 |
|
|

|*  5 |     TABLE ACCESS FULL| EMPLOYEE |     1 |     3 |     3   (0)|
00:00:01
|

--------------------------------------------------------------------------------
-



Predicate Information (identified by operation
id):
---------------------------------------------------

   2 - filter( (SELECT COUNT(DISTINCT
"SALARY") FROM "EMPLOYEE" "B"
              WHERE
"B"."SALARY">:B1)=1)
   5 -
filter("B"."SALARY">:B1)


Statistics
----------------------------------
------------------------
          1  recursive calls
          0  db block gets
         24
consistent gets
          6  physical reads
          0  redo size
        553  bytes sent via
SQL*Net to client
        510  bytes received via SQL*Net from client
          2  SQL*Net
roundtrips to/from client
          3  sorts (memory)
          0  sorts (disk)
          1
rows
processed
*/


--------------------------------------------------------------------------------
-------------------------------------
/*Option 3 using dense_rank with distinct
*/
--------------------------------------------------------------------------------------------
-------------------------

WITH cte1 AS(
    SELECT salary,
    DENSE_RANK() OVER(ORDER BY
Salary DESC) AS rn
    FROM EMPLOYEE
    )
    SELECT DISTINCT salary
    FROM cte1
    WHERE
rn = 2
    /

/*
Execution Plan
----------------------------------------------------------
```

```
Plan
hash value:
3548743365

--------------------------------------------------------------------------------
--
----

| Id  | Operation                  | Name     | Rows  | Bytes | Cost (%CPU)| Time

|

--------------------------------------------------------------------------------
------

|
0 | SELECT STATEMENT          |          |     1 |    16 |     5  (40)| 00:0
0:01 |

|   1 |
SORT UNIQUE NOSORT       |          |     1 |    16 |     5  (40)| 00:0
0:01 |

|*  2 |   VIEW
                  |          |     2 |    32 |     4  (25)| 00:0
0:01 |

|*  3 |    WINDOW SORT
PUSHED RANK|          |     2 |     6 |     4  (25)| 00:0
0:01 |

|   4 |     TABLE ACCESS FULL
    | EMPLOYEE |     2 |     6 |     3   (0)| 00:0
0:01
|

--------------------------------------------------------------------------------
------


Pr
edicate Information (identified by operation
id):
---------------------------------------------------

   2 - filter("RN"=2)
   3
- filter(DENSE_RANK() OVER ( ORDER BY INTERNAL_FUNCTION("SALARY") DESC

)<=2)


Statistics
----------------------------------------------------------
          5
recursive calls
          0  db block gets
          9  consistent gets
          8  physical
reads
          0  redo size
        548  bytes sent via SQL*Net to client
        747  bytes
received via SQL*Net from client
          2  SQL*Net roundtrips to/from client
          1
sorts (memory)
          0  sorts (disk)
          1  rows processed
          */


----------------------------------------------------------------------------------------------
-----------------------
/*Option 4 using dense_rank with aggregate function max
```

```
*/
-----------------------------------------------------------------------------------------------
-------------------------

WITH cte1 AS(
    SELECT salary,
    DENSE_RANK() OVER(ORDER BY
Salary DESC) AS rn
    FROM EMPLOYEE
    )
    SELECT  MAX(salary)
    FROM cte1
    WHERE rn =
2
    /

/*
Execution Plan
----------------------------------------------------------
Plan hash
value:
12444449

-------------------------------------------------------------------------------
----
--

| Id  | Operation                 | Name     | Rows  | Bytes | Cost (%CPU)| Time

|

-------------------------------------------------------------------------------
------

|
0 | SELECT STATEMENT          |          |     1 |    26 |     4  (25)| 00:0
0:01 |

|   1 |
SORT AGGREGATE           |          |     1 |    26 |            |
     |

|*  2 |   VIEW
             |          |     2 |    52 |     4  (25)| 00:0
0:01 |

|*  3 |    WINDOW SORT
PUSHED RANK|          |     2 |     6 |     4  (25)| 00:0
0:01 |

|   4 |     TABLE ACCESS FULL
    | EMPLOYEE |     2 |     6 |     3   (0)| 00:0
0:01
|

-------------------------------------------------------------------------------
------


Pr
edicate Information (identified by operation
id):
---------------------------------------------------

   2 - filter("RN"=2)
   3
- filter(DENSE_RANK() OVER ( ORDER BY INTERNAL_FUNCTION("SALARY") DESC

)<=2)


Statistics
----------------------------------------------------------
         64
recursive calls
```

```
          0  db block gets
         13  consistent gets
          8  physical
reads
          0  redo size
        553  bytes sent via SQL*Net to client
        524  bytes
received via SQL*Net from client
          2  SQL*Net roundtrips to/from client
          1
sorts (memory)
          0  sorts (disk)
          1  rows processed
*/
```