COMP23111

2017-2018

EX03

9961177

```
SQL>
SQL> create or replace view a as
  2    select DISTINCT firstName,lastName
  3    From CustomerInfo natural join orderCartInfo;

View created.

SQL>
SQL> SELECT * FROM a;

FIRSTNAME            LASTNAME
-------------------- --------------------
Ophelia              Elsinore
John                 Booker
Mary                 Folio
Percy                Byron

SQL>
SQL> create or replace view b as
  2    select code,itemNum,categoryId,qtyInstock
  3    from InventoryItem natural join category natural join ItemType
  4    where qtyInstock<25;

View created.

SQL>
SQL> SELECT * FROM b;

CODE                 ITEMNUM    CATEGORYID QTYINSTOCK
-------------------- ---------- ---------- ----------
hbk                  C2         C                 20
hbk                  C2         F                 20
hbk                  C2         H                 20
hbk                  C2         P                 20
hbk                  C2         SF                20
ebk                  A0         C                 15
ebk                  A0         F                 15
ebk                  A0         H                 15
ebk                  A0         P                 15
ebk                  A0         SF                15

10 rows selected.

SQL>
SQL> create or replace view c as
  2    select orderCartId,loginName,firstName,lastName,orderPrice
  3    from customerInfo natural join orderCartInfo natural join lineItems
  4
SQL> select * from c;
```

ORDERCARTI	LOGINNAME	FIRSTNAME	LASTNAME	ORDERPRICE
1	choizeznyc	John	Booker	2.99
8	choizeznyc	John	Booker	3.99
3	choizeznyc	John	Booker	5.99
2	choizeznyc	John	Booker	3.99
1	choizeznyc	John	Booker	2.99
3	choizeznyc	John	Booker	2.99
3	choizeznyc	John	Booker	3.99
4	choizeznyc	John	Booker	4.99
6	choizeznyc	John	Booker	6.99
5	choizeznyc	John	Booker	2.99
7	choizeznyc	John	Booker	1.99

ORDERCARTI	LOGINNAME	FIRSTNAME	LASTNAME	ORDERPRICE
1	shkeandco	Mary	Folio	2.99
8	shkeandco	Mary	Folio	3.99
3	shkeandco	Mary	Folio	5.99
2	shkeandco	Mary	Folio	3.99
1	shkeandco	Mary	Folio	2.99
3	shkeandco	Mary	Folio	2.99
3	shkeandco	Mary	Folio	3.99
4	shkeandco	Mary	Folio	4.99
6	shkeandco	Mary	Folio	6.99
5	shkeandco	Mary	Folio	2.99
7	shkeandco	Mary	Folio	1.99

ORDERCARTI	LOGINNAME	FIRSTNAME	LASTNAME	ORDERPRICE
1	dramab	Ophelia	Elsinore	2.99
8	dramab	Ophelia	Elsinore	3.99
3	dramab	Ophelia	Elsinore	5.99
2	dramab	Ophelia	Elsinore	3.99
1	dramab	Ophelia	Elsinore	2.99
3	dramab	Ophelia	Elsinore	2.99
3	dramab	Ophelia	Elsinore	3.99
4	dramab	Ophelia	Elsinore	4.99
6	dramab	Ophelia	Elsinore	6.99
5	dramab	Ophelia	Elsinore	2.99
7	dramab	Ophelia	Elsinore	1.99

ORDERCARTI	LOGINNAME	FIRSTNAME	LASTNAME	ORDERPRICE
1	astrab	Percy	Byron	2.99
8	astrab	Percy	Byron	3.99
3	astrab	Percy	Byron	5.99
2	astrab	Percy	Byron	3.99
1	astrab	Percy	Byron	2.99
3	astrab	Percy	Byron	2.99
3	astrab	Percy	Byron	3.99
4	astrab	Percy	Byron	4.99

```
6      astrab   Percy            Byron                6.99
5      astrab   Percy            Byron                2.99
7      astrab   Percy            Byron                1.99

44 rows selected.

SQL>
SQL> create or replace view d as
  2    select loginName,firstName,lastName,sum(orderPrice)sum
  3    from customerInfo natural join orderCartInfo natural join lineItems
  4    group by loginName,firstName,lastName;

View created.

SQL> select * from d;

LOGINNAME  FIRSTNAME          LASTNAME                SUM
---------- -------------------- -------------------- ----------
shkeandco  Mary             Folio            43.89
choizeznyc John             Booker              43.89
astrab     Percy            Byron           43.89
dramab     Ophelia          Elsinore            43.89

SQL>
SQL> create or replace view e as
  2    select distinct loginName, count(orderCartId)cartnum
  3    from orderCartInfo natural join customerInfo
  4    group by loginName;

View created.

SQL>
SQL> select loginName,
  2  CASE
  3    WHEN cartnum > 2 THEN 'BR-1 violated'
  4    ELSE 'BR-1 satisfied'
  5  END as case1
  6  from e;

LOGINNAME  CASE1
---------- --------------
astrab    BR-1 violated
choizeznyc BR-1 violated
dramab    BR-1 violated
shkeandco  BR-1 violated

SQL>
SQL> select itemNum,itemSize,itemColor,count(itemNum)as count
  2  from inventoryItem natural join itemType
  3  group by itemColor,itemSize,itemNum;

ITEMNUM     ITEMSIZE ITEMCOLOR          COUNT
```

```
---------- ---------- --------------- ----------
A3          2 black                    1
A0          4 green                    2
A2          3 green                    1
A0          3 black                    1
B1          4 white                    1
C1          4 black                    1
C2          3 black                    2

7 rows selected.

SQL>
SQL> select
  2  CASE
  3    WHEN count > 1 THEN 'BR-2 violated'
  4    ELSE 'BR-2 satisfied'
  5  END as case1
  6  from (
  7    select itemNum,itemSize,itemColor,count(itemNum)as count
  8    from inventoryItem natural join itemType
  9    group by itemColor,itemSize,itemNum
 10  );

CASE1
--------------
BR-2 satisfied
BR-2 violated
BR-2 satisfied
BR-2 satisfied
BR-2 satisfied
BR-2 satisfied
BR-2 violated

7 rows selected.

SQL>
SQL>
SQL> select itemNum,itemColor,itemSize,
  2  CASE
  3    WHEN count > 1 THEN 'BR-2 violated'
  4    ELSE 'BR-2 satisfied'
  5  END as case1
  6  from (
  7    select itemNum,itemSize,itemColor,count(itemNum)as count
  8    from inventoryItem natural join itemType
  9    group by itemColor,itemSize,itemNum
 10  )
 11  where count>1;

ITEMNUM    ITEMCOLOR       ITEMSIZE CASE1
---------- --------------- ---------- --------------
A0         green                  4 BR-2 violated
```

C2   black   3 BR-2 violated

SQL>
SQL>
SQL>   CREATE or replace TRIGGER tr_price before insert or update on itemType for each row
  2   declare minimum float;
  3   begin
  4   select min(price)
  5   into minimum
  6   from itemType;
  7   if :new.price > 4*minimum
  8   then
  9   raise_application_error (-20000,'new price can not over 4 times min old price');
 10   END IF;
 11   end;
 12   /

Trigger created.

SQL>
SQL> select * from itemType;

ITEMNUM   NAME
---------- --------------------
PICTURE   PRICE BELONGSTO
-- ---------- ----------
A0   The Anarchy of Mask
***   10.99 P

A1   The Butler Did
---   11.99 C

A2   The Abolished Man
===   15.99 SF

ITEMNUM   NAME
---------- --------------------
PICTURE   PRICE BELONGSTO
-- ---------- ----------
A3   Lyrical Bullets
+-+-   20.99 P

B1   The Postlude
=\=\=   34.99 P

C1   The August of Guns
**--   10.99 H

ITEMNUM   NAME
---------- --------------------

```
PICTURE                               PRICE BELONGSTO
-------------------------------------------- ---------- ----------
C2      The Expectant Mirror
^-^                               12.99 H


7 rows selected.

SQL>
SQL> insert into itemType values ('D2', 'awefawef', '---', 1000, 'C');
insert into itemType values ('D2', 'awefawef', '---', 1000, 'C')
          *
ERROR at line 1:
ORA-20000: new price can not over 4 times min old price
ORA-06512: at "MBAXAQZ2.TR_PRICE", line 8
ORA-04088: error during execution of trigger 'MBAXAQZ2.TR_PRICE'


SQL>   select * from itemType;

ITEMNUM   NAME
---------- --------------------
PICTURE                               PRICE BELONGSTO
-------------------------------------------- ---------- ----------
A0      The Anarchy of Mask
***                               10.99 P


A1      The Butler Did
---                               11.99 C


A2      The Abolished Man
===                               15.99 SF


ITEMNUM   NAME
---------- --------------------
PICTURE                               PRICE BELONGSTO
-------------------------------------------- ---------- ----------
A3      Lyrical Bullets
+-+-                              20.99 P


B1      The Postlude
=\=\=                             34.99 P


C1      The August of Guns
**--                              10.99 H


ITEMNUM   NAME
---------- ----------------------
PICTURE                               PRICE BELONGSTO
------------------------------------------------- ---------- ----------
```

```
C2      The Expectant Mirror
^_^                             12.99 H


7 rows selected.

SQL> insert into itemType values ('D3', 'awefawef', '---', 1, 'C');

1 row created.

SQL>  select * from itemType;

ITEMNUM   NAME
---------- --------------------
PICTURE                                  PRICE BELONGSTO
------------------------------------------------ ---------- ----------
A0      The Anarchy of Mask
***                             10.99 P


A1      The Butler Did
---                             11.99 C


A2      The Abolished Man
===                             15.99 SF


ITEMNUM   NAME
---------- --------------------
PICTURE                                  PRICE BELONGSTO
------------------------------------------------ ---------- ----------
A3      Lyrical Bullets
+-+-                            20.99 P


B1      The Postlude
=\=\=                           34.99 P


C1      The August of Guns
**--                            10.99 H


ITEMNUM   NAME
---------- --------------------
PICTURE                                  PRICE BELONGSTO
------------------------------------------------ ---------- ----------
C2      The Expectant Mirror
^_^                             12.99 H


D3      awefawef
---                              1 C


8 rows selected.
```

```
SQL>
SQL> update itemType
  2  set price = 1
  3  where itemNum = 'C2';
update itemType
       *
ERROR at line 1:
ORA-04091: table MBAXAQZ2.ITEMTYPE is mutating, trigger/function may not see it
ORA-06512: at "MBAXAQZ2.TR_PRICE", line 3
ORA-04088: error during execution of trigger 'MBAXAQZ2.TR_PRICE'


SQL> select * from itemType;

ITEMNUM    NAME
---------- --------------------
PICTURE                                        PRICE BELONGSTO
---------------------------------------------- ---------- ----------
A0         The Anarchy of Mask
***                                            10.99 P


A1         The Butler Did
---                                            11.99 C


A2         The Abolished Man
===                                            15.99 SF



ITEMNUM    NAME
---------- --------------------
PICTURE                                        PRICE BELONGSTO
---------------------------------------------- ---------- ----------
A3         Lyrical Bullets
+-+-                                           20.99 P


B1         The Postlude
=\=\=                                          34.99 P


C1         The August of Guns
**--                                           10.99 H



ITEMNUM    NAME
---------- --------------------
PICTURE                                        PRICE BELONGSTO
---------------------------------------------- ---------- ----------
C2         The Expectant Mirror
^-^                                            12.99 H


D3         awefawef
---                                                1 C
```

8 rows selected.

```
SQL>
SQL> update itemType
  2  set price = 100
  3  where itemNum = 'C2';
update itemType
       *
ERROR at line 1:
ORA-04091: table MBAXAQZ2.ITEMTYPE is mutating, trigger/function may not see it
ORA-06512: at "MBAXAQZ2.TR_PRICE", line 3
ORA-04088: error during execution of trigger 'MBAXAQZ2.TR_PRICE'


SQL> select * from itemType;

ITEMNUM    NAME
---------- --------------------
PICTURE                                          PRICE BELONGSTO
-------------------------------------------------- ---------- ----------
A0         The Anarchy of Mask
***                                              10.99 P


A1         The Butler Did
---                                              11.99 C


A2         The Abolished Man
===                                              15.99 SF



ITEMNUM    NAME
---------- --------------------
PICTURE                                          PRICE BELONGSTO
-------------------------------------------------- ---------- ----------
A3         Lyrical Bullets
+-+-                                             20.99 P


B1         The Postlude
=\=\=                                            34.99 P


C1         The August of Guns
**--                                             10.99 H



ITEMNUM    NAME
---------- --------------------
PICTURE                                          PRICE BELONGSTO
-------------------------------------------------- ---------- ----------
C2         The Expectant Mirror
^-^                                              12.99 H
```

```
D3      awefawef
---                           1 C


8 rows selected.

SQL>
SQL>
SQL> spool off
```