

```

1  --cau1
2  create view uvw_DetailProductInOrder
3  as
4      select OI.OrderId, O.OrderNumber, O.OrderDate, OI.ProductId,
5             P.ProductName + SPACE(1) + P.Package as [ProductInfo],
6             OI.UnitPrice, OI.Quantity
7  from OrderItem OI
8      inner join [Order] O on OI.OrderId = O.Id
9      inner join Product P on OI.ProductId = P.Id
10 go

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100 %

Results

Messages

	OrderId	OrderNumber	OrderDate	ProductId	ProductInfo	UnitPrice	Quantity
1	1	542378	2012-07-04 00:00:00.000	11	Queso Cabrales 1 kg pkg.	14.00	12
2	1	542378	2012-07-04 00:00:00.000	42	Singaporean Hokkien Fried Mee 32 - 1 kg pkgs.	9.80	10
3	1	542378	2012-07-04 00:00:00.000	72	Mozzarella di Giovanni 24 - 200 g pkgs.	34.80	5
4	2	542379	2012-07-05 00:00:00.000	14	Tofu 40 - 100 g pkgs.	18.60	9
5	2	542379	2012-07-05 00:00:00.000	51	Manjimup Dried Apples 50 - 300 g pkgs.	42.40	40
6	3	542380	2012-07-08 00:00:00.000	41	Jack's New England Clam Chowder 12 - 12 oz cans	7.70	10
7	3	542380	2012-07-08 00:00:00.000	51	Manjimup Dried Apples 50 - 300 g pkgs.	42.40	35
8	3	542380	2012-07-08 00:00:00.000	65	Louisiana Fiery Hot Pepper Sauce 32 - 8 oz bottles	16.80	15
9	4	542381	2012-07-08 00:00:00.000	22	Gustaf's Knäckebröd 24 - 500 g pkgs.	16.80	6
10	4	542381	2012-07-08 00:00:00.000	57	Ravioli Angelo 24 - 250 g pkgs.	15.60	15
11	4	542381	2012-07-08 00:00:00.000	65	Louisiana Fiery Hot Pepper Sauce 32 - 8 oz bottles	16.80	20
12	5	542382	2012-07-09 00:00:00.000	20	Sir Rodney's Marmalade 30 gift boxes	64.80	40
13	5	542382	2012-07-09 00:00:00.000	33	Geitost 500 g	2.00	25
14	5	542382	2012-07-09 00:00:00.000	60	Camembert Pierrot 15 - 300 g rounds	27.20	40
15	6	542383	2012-07-10 00:00:00.000	31	Gorgonzola Telino 12 - 100 g pkgs	10.00	20
16	6	542383	2012-07-10 00:00:00.000	39	Chartreuse verte 750 cc per bottle	14.40	42
17	6	542383	2012-07-10 00:00:00.000	49	Maxilaku 24 - 50 g pkgs.	16.00	40
18	7	542384	2012-07-11 00:00:00.000	24	Guaraná Fantástica 12 - 355 ml cans	3.60	15
19	7	542384	2012-07-11 00:00:00.000	55	Pâté chinois 24 boxes x 2 pies	19.20	21
20	7	542384	2012-07-11 00:00:00.000	74	Longlife Tofu 5 kg pkg.	8.00	21
21	8	542385	2012-07-12 00:00:00.000	2	Chang 24 - 12 oz bottles	15.20	20
22	8	542385	2012-07-12 00:00:00.000	16	Pavlova 32 - 500 g boxes	13.90	35
23	8	542385	2012-07-12 00:00:00.000	36	Inlagd Sill 24 - 250 g jars	15.20	25
24	8	542385	2012-07-12 00:00:00.000	59	Raclette Courdavault 5 kg pkg.	44.00	30
25	9	542386	2012-07-15 00:00:00.000	53	Perth Pasties 48 pieces	26.20	15
26	9	542386	2012-07-15 00:00:00.000	77	Original Frankfurter grüne Soße 12 boxes	10.40	12
27	10	542387	2012-07-16 00:00:00.000	27	Schoggi Schokolade 100 - 100 g pieces	35.10	25
28	10	542387	2012-07-16 00:00:00.000	39	Chartreuse verte 750 cc per bottle	14.40	6
29	10	542387	2012-07-16 00:00:00.000	77	Original Frankfurter grüne Soße 12 boxes	10.40	15
30	11	542388	2012-07-17 00:00:00.000	2	Chang 24 - 12 oz bottles	15.20	50
31	11	542388	2012-07-17 00:00:00.000	5	Chef Anton's Gumbo Mix 36 boxes	17.00	65
32	11	542388	2012-07-17 00:00:00.000	32	Mascarpone Fabioli 24 - 200 g pkgs.	25.60	6
33	12	542389	2012-07-18 00:00:00.000	31	Sir Rodney's Marmalade 30 gift boxes	64.80	10

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11
12 create view uvw_AllProductInOrde
13 as
14 select OI.OrderId, O.OrderNumber,O.OrderDate,
15     stuff((
16         select ',' + cast(ProductId as nvarchar(max))
17         from [OrderItem] OII
18         where OI.OrderId = OII.OrderId
19         FOR XML PATH ('')
20         ),1,1,'') as [ProductList],
21     sum(Quantity*UnitPrice) as TotalAmount
22 from [OrderItem] OI inner join [Order] O on OI.OrderId = O.Id
23 group by OrderId,O.OrderNumber,O.OrderDate]
24 go
25

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Results Messages

	OrderId	OrderNumber	OrderDate	ProductList	TotalAmount
1	1	542378	2012-07-04 00:00:00.000	11,42,72	440.00
2	2	542379	2012-07-05 00:00:00.000	14,51	1863.40
3	3	542380	2012-07-08 00:00:00.000	41,51,65	1813.00
4	4	542381	2012-07-08 00:00:00.000	22,57,65	670.80
5	5	542382	2012-07-09 00:00:00.000	20,33,60	3730.00
6	6	542383	2012-07-10 00:00:00.000	31,39,49	1444.80
7	7	542384	2012-07-11 00:00:00.000	24,55,74	625.20
8	8	542385	2012-07-12 00:00:00.000	2,16,36,59	2490.50
9	9	542386	2012-07-15 00:00:00.000	53,77	517.80
10	10	542387	2012-07-16 00:00:00.000	27,39,77	1119.90
11	11	542388	2012-07-17 00:00:00.000	2,5,32	2018.60
12	12	542389	2012-07-18 00:00:00.000	21,37	100.80
13	13	542390	2012-07-19 00:00:00.000	41,57,62,70	1746.20
14	14	542391	2012-07-19 00:00:00.000	21,35	448.00
15	15	542392	2012-07-22 00:00:00.000	5,7,56	624.80
16	16	542393	2012-07-23 00:00:00.000	16,24,30,74	2464.80
17	17	542394	2012-07-24 00:00:00.000	2,41	724.50
18	18	542395	2012-07-25 00:00:00.000	17,70	1176.00
19	19	542396	2012-07-26 00:00:00.000	12	364.80
20	20	542397	2012-07-29 00:00:00.000	40,59,76	4031.00
21	21	542398	2012-07-30 00:00:00.000	29,72	1101.20
22	22	542399	2012-07-31 00:00:00.000	33,72	676.00
23	23	542400	2012-08-01 00:00:00.000	36,43	1376.00
24	24	542401	2012-08-01 00:00:00.000	33	48.00
25	25	542402	2012-08-02 00:00:00.000	20,31,72	1456.00
26	26	542403	2012-08-05 00:00:00.000	10,31,33,40,76	2142.40
27	27	542404	2012-08-06 00:00:00.000	71,72	538.60
28	28	542405	2012-08-07 00:00:00.000	24,59	307.20

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26 --cau2
27 select *
28 from uvw_DetailProductInOrder
29 where MONTH(OrderDate)=7
30
31

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Results

Messages

	OrderId	OrderNumber	OrderDate	ProductId	ProductInfo	UnitPrice	Quantity
1	1	542378	2012-07-04 00:00:00.000	11	Queso Cabrales 1 kg pkg.	14.00	12
2	1	542378	2012-07-04 00:00:00.000	42	Singaporean Hokkien Fried Mee 32 - 1 kg pkgs.	9.80	10
3	1	542378	2012-07-04 00:00:00.000	72	Mozzarella di Giovanni 24 - 200 g pkgs.	34.80	5
4	2	542379	2012-07-05 00:00:00.000	14	Tofu 40 - 100 g pkgs.	18.60	9
5	2	542379	2012-07-05 00:00:00.000	51	Manjimup Dried Apples 50 - 300 g pkgs.	42.40	40
6	3	542380	2012-07-08 00:00:00.000	41	Jack's New England Clam Chowder 12 - 12 oz cans	7.70	10
7	3	542380	2012-07-08 00:00:00.000	51	Manjimup Dried Apples 50 - 300 g pkgs.	42.40	35
8	3	542380	2012-07-08 00:00:00.000	65	Louisiana Fiery Hot Pepper Sauce 32 - 8 oz bottles	16.80	15
9	4	542381	2012-07-08 00:00:00.000	22	Gustaf's Knäckebröd 24 - 500 g pkgs.	16.80	6
10	4	542381	2012-07-08 00:00:00.000	57	Ravioli Angelo 24 - 250 g pkgs.	15.60	15
11	4	542381	2012-07-08 00:00:00.000	65	Louisiana Fiery Hot Pepper Sauce 32 - 8 oz bottles	16.80	20
12	5	542382	2012-07-09 00:00:00.000	20	Sir Rodney's Marmalade 30 gift boxes	64.80	40
13	5	542382	2012-07-09 00:00:00.000	33	Geitost 500 g	2.00	25
14	5	542382	2012-07-09 00:00:00.000	60	Camembert Pierrot 15 - 300 g rounds	27.20	40
15	6	542383	2012-07-10 00:00:00.000	31	Gorgonzola Telino 12 - 100 g pkgs	10.00	20
16	6	542383	2012-07-10 00:00:00.000	39	Chartreuse verte 750 cc per bottle	14.40	42
17	6	542383	2012-07-10 00:00:00.000	49	Maxilaku 24 - 50 g pkgs.	16.00	40
18	7	542384	2012-07-11 00:00:00.000	24	Guaraná Fantástica 12 - 355 ml cans	3.60	15
19	7	542384	2012-07-11 00:00:00.000	55	Pâté chinois 24 boxes x 2 pies	19.20	21
20	7	542384	2012-07-11 00:00:00.000	74	Longlife Tofu 5 kg pkg.	8.00	21
21	8	542385	2012-07-12 00:00:00.000	2	Chang 24 - 12 oz bottles	15.20	20
22	8	542385	2012-07-12 00:00:00.000	16	Pavlova 32 - 500 g boxes	13.90	35
23	8	542385	2012-07-12 00:00:00.000	36	Inlagd Sill 24 - 250 g jars	15.20	25
24	8	542385	2012-07-12 00:00:00.000	59	Raclette Courdavault 5 kg pkg.	44.00	30
25	9	542386	2012-07-15 00:00:00.000	53	Perth Pasties 48 pieces	26.20	15
26	9	542386	2012-07-15 00:00:00.000	77	Original Frankfurter grüne Soße 12 boxes	10.40	12
27	10	542387	2012-07-16 00:00:00.000	27	Schoggi Schokolade 100 - 100 g pieces	35.10	25
28	10	542387	2012-07-16 00:00:00.000	39	Chartreuse verte 750 cc per bottle	14.40	6



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31 --cau3
32 select *
33 from uvw_AllProductInOrde as viewOutside
34 where (select LEN(ProductList) - LEN(REPLACE(ProductList, ',', ''))
35        from uvw_AllProductInOrde as viewInside
36        where viewInside.OrderId = viewOutside.OrderId) >= 2
37
38 -- cau4

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Results Messages

	OrderId	OrderNumber	OrderDate	ProductList	TotalAmount
1	1	542378	2012-07-04 00:00:00.000	11,42,72	440.00
2	3	542380	2012-07-08 00:00:00.000	41,51,65	1813.00
3	4	542381	2012-07-08 00:00:00.000	22,57,65	670.80
4	5	542382	2012-07-09 00:00:00.000	20,33,60	3730.00
5	6	542383	2012-07-10 00:00:00.000	31,39,49	1444.80
6	7	542384	2012-07-11 00:00:00.000	24,55,74	625.20
7	8	542385	2012-07-12 00:00:00.000	2,16,36,59	2490.50
8	10	542387	2012-07-16 00:00:00.000	27,39,77	1119.90
9	11	542388	2012-07-17 00:00:00.000	2,5,32	2018.60
10	13	542390	2012-07-19 00:00:00.000	41,57,62,70	1746.20
11	15	542392	2012-07-22 00:00:00.000	5,7,56	624.80
12	16	542393	2012-07-23 00:00:00.000	16,24,30,74	2464.80
13	20	542397	2012-07-29 00:00:00.000	40,59,76	4031.00
14	25	542402	2012-08-02 00:00:00.000	20,31,72	1456.00
15	26	542403	2012-08-05 00:00:00.000	10,31,33,40,76	2142.40
16	31	542408	2012-08-12 00:00:00.000	44,59,63,73	1488.80
17	33	542410	2012-08-14 00:00:00.000	24,55,75	613.20
18	34	542411	2012-08-14 00:00:00.000	19,24,35	86.50
19	36	542413	2012-08-16 00:00:00.000	15,19,60,72	1414.80
20	37	542414	2012-08-19 00:00:00.000	27,44,60,67	1452.00
21	38	542415	2012-08-20 00:00:00.000	1,40,53	2179.20
22	40	542417	2012-08-22 00:00:00.000	16,34,46	924.00
23	43	542420	2012-08-27 00:00:00.000	5,29,49,77	2169.00
24	44	542421	2012-08-27 00:00:00.000	13,44,51	552.80
25	46	542423	2012-08-29 00:00:00.000	18,24,63,75	848.70
26	47	542424	2012-08-30 00:00:00.000	1,17,43,60,75	1887.60
27	49	542426	2012-09-03 00:00:00.000	11,16,69	1050.60
28	51	542428	2012-09-05 00:00:00.000	2,36,59,62	3127.00

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38 -- cau4
39 -- 2 view tren chua readonly
40 -- lay bang uvw_DetailProductInOrder lam mau readonly
41 -- (tuong tu voi bang uvw_AllProductInOrde)
42
43 -- cau4.1
44 CREATE TRIGGER uvw_DetailProductInOrder_trigger
45 on uvw_DetailProductInOrder
46 instead of insert, update, delete
47 as
48 begin
49     raiserror('You are not allowed to insert, update, delete through this view',16,1)
50 end
51 -- cau4.2
52 create view uvw_DetailProductInOrder_B
53 as
54     select OI.OrderId, O.OrderNumber, O.OrderDate, OI.ProductId,
55            P.ProductName + SPACE(1) + P.Package as [ProductInfo],
56            OI.UnitPrice, OI.Quantity
57     from OrderItem OI
58        inner join [Order] O on OI.OrderId = O.Id
59        inner join Product P on OI.ProductId = P.Id
60     union
61     select null,null,null,null,null,null,null where 1 = 0;
62 go
63 -- cau4.3
64 create view uvw_DetailProductInOrder_C
65 as
66     select OI.OrderId, O.OrderNumber, O.OrderDate, OI.ProductId,
67            P.ProductName + SPACE(1) + P.Package as [ProductInfo],
68            OI.UnitPrice, OI.Quantity
69     from OrderItem OI
70        inner join [Order] O on OI.OrderId = O.Id
71        inner join Product P on OI.ProductId = P.Id
72 WITH CHECK OPTION;
73 go
74

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75 --cau5
76 set statistics io, time on
77 go
78
79 select *
80 from uvw_DetailProductInOrder
81
82 select *
83 from uvw_AllProductInOrde
84
85 set statistics io, time off
86 go

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100 %

 Results  Messages

SQL Server parse and compile time:

CPU time = 0 ms, elapsed time = 0 ms.

(2155 row(s) affected)

Table 'Workfile'. Scan count 0, logical reads 0, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.  
 Table 'Worktable'. Scan count 0, logical reads 0, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.  
 Table 'OrderItem'. Scan count 1, logical reads 12, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.  
 Table 'Order'. Scan count 1, logical reads 8, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.  
 Table 'Product'. Scan count 1, logical reads 3, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.

SQL Server Execution Times:

CPU time = 0 ms, elapsed time = 174 ms.

(830 row(s) affected)

Table 'OrderItem'. Scan count 831, logical reads 5985, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.  
 Table 'Order'. Scan count 1, logical reads 8, physical reads 0, read-ahead reads 0, lob logical reads 0, lob physical reads 0, lob read-ahead reads 0.

SQL Server Execution Times:

CPU time = 62 ms, elapsed time = 118 ms.