```sql
--Câu 1
CREATE VIEW uvw_DetailProductInOrder
AS
    SELECT OI.OrderId, O.OrderNumber, O.OrderDate, OI.ProductId,
           P.ProductName + SPACE(1) + P.Package AS [ProductInfo],
           OI.UnitPrice, OI.Quantity
    FROM OrderItem OI
        inner join [Order] O ON OI.OrderId = O.Id
        inner join Product P ON OI.ProductId = P.Id
GO

CREATE VIEW uvw_AllProductInOrde
AS
SELECT OI.OrderId, O.OrderNumber,O.OrderDate,
    stuff((
        SELECT ',' + cast(ProductId AS nvarchar(max))
        FROM [OrderItem] OII
        WHERE OI.OrderId = OII.OrderId
        FOR XML PATH ('')
        ),1,1,'') AS [ProductList],
        sum(Quantity*UnitPrice) AS TotalAmount
FROM [OrderItem] OI inner join [Order] O ON OI.OrderId = O.Id
GROUP BY OrderId,O.OrderNumber,O.OrderDate
GO
```

```sql
--Câu 2
SELECT *
FROM uvw_DetailProductInOrder
WHERE MONTH(OrderDate)=7
```

	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...	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 b...	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 b...	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

Query executed successfully.   DUY\SQLEXPRESS (15.0 RTM)   DUY\ADMIN (58)   Northwind   00:00:00   136 rows

```sql
--Câu  3
SELECT *
FROM uvw_AllProductInOrde AS viewOutside
WHERE (SELECT LEN(ProductList) - LEN(REPLACE(ProductList, ',', ''))
        FROM uvw_AllProductInOrde AS viewInside
        WHERE viewInside.OrderId = viewOutside.OrderId) >= 2
-- Câu  4
```

	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

```sql
        WHERE viewInside.OrderId = viewOutside.OrderId) >= 2
-- Câu  4
-- 2 VIEW tren chua readonly
-- lay bang uvw_DetailProductInOrder lam mau readonly
-- (tuong tu voi bang uvw_AllProductInOrde)

-- Câu 4.1
CREATE TRIGGER uvw_DetailProductInOrder_trigger
ON uvw_DetailProductInOrder
INSTEAD OF INSERT, UPDATE, DELETE
AS
BEGIN
    RAISERROR('You are not allowed to insert, update, delete through this VIEW',16,1)
END
```

Messages

Commands completed successfully.

Completion time: 2022-05-16T13:33:20.9101023+07:00

Query executed successfully.   DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (58) Northwind 00:00:00 0 rows

```sql
-- Câu 4.2
CREATE VIEW uvw_DetailProductInOrder_B
AS
    SELECT OI.OrderId, O.OrderNumber, O.OrderDate, OI.ProductId,
           P.ProductName + SPACE(1) + P.Package AS [ProductInfo],
           OI.UnitPrice, OI.Quantity
    FROM OrderItem OI
        inner join [Order] O ON OI.OrderId = O.Id
        inner join Product P ON OI.ProductId = P.Id
    UNION
    SELECT null,null,null,null,null,null,null WHERE 1 = 0;
GO
-- Câu 4.3
```

Messages

```
Commands completed successfully.

Completion time: 2022-05-16T13:35:46.5171101+07:00
```

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (58) Northwind 00:00:00 0 rows

```sql
GO
-- Câu 4.3
CREATE VIEW uvw_DetailProductInOrder_C
AS
    SELECT OI.OrderId, O.OrderNumber, O.OrderDate, OI.ProductId,
           P.ProductName + SPACE(1) + P.Package AS [ProductInfo],
           OI.UnitPrice, OI.Quantity
    FROM OrderItem OI
        inner join [Order] O ON OI.OrderId = O.Id
        inner join Product P ON OI.ProductId = P.Id
WITH CHECK OPTION;
GO

--Câu 5
```

Messages

```
Commands completed successfully.

Completion time: 2022-05-16T13:36:11.4448262+07:00
```

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (58) Northwind 00:00:00 0 rows

```sql
--Câu  5
SET STATISTICS IO, TIME ON
GO

SELECT *
FROM uvw_DetailProductInOrder

SELECT *
FROM uvw_AllProductInOrde

SET STATISTICS IO, TIME OFF
GO
```

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

	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

⊘ Query executed successfully.   DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (58) Northwind 00:00:00 2,985 rows