

--Câu 1
 --Theo mỗi OrderID cho biết số lượng Quantity của mỗi ProductID chiếm tỷ lệ bao nhiêu phần trăm

```

SELECT OrderId, Quantity, ProductId,
       SUM (Quantity) OVER (PARTITION BY OrderId) AS TotalQuantity,
       CAST ((1.0* Quantity)/(SUM(Quantity) OVER (PARTITION BY OrderId))*100
              AS DECIMAL(6,2)) AS PercentofQuantity
FROM OrderItem
  
```

100 %

Results Messages

	OrderId	Quantity	ProductId	TotalQuantity	PercentofQuantity
1	1	12	11	27	44.44
2	1	10	42	27	37.04
3	1	5	72	27	18.52
4	2	9	14	49	18.37
5	2	40	51	49	81.63
6	3	10	41	60	16.67
7	3	35	51	60	58.33
8	3	15	65	60	25.00
9	4	6	22	41	14.63
10	4	15	57	41	36.59
11	4	20	65	41	48.78
12	5	40	20	105	38.10
13	5	25	33	105	23.81
14	5	40	60	105	38.10
15	6	20	31	102	19.61
16	6	42	39	102	41.18
17	6	40	49	102	39.22
18	7	15	24	57	26.32
19	7	21	55	57	36.84
20	7	21	74	57	36.84
21	8	20	2	110	18.18
22	8	35	16	110	31.82

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (53) Northwind 00:00:00 2,155 rows

--Câu 2
 --Xuất các hóa đơn kèm theo thông tin ngày trong tuần của hóa đơn là : Thứ 2, 3,4,5,6,7, Chủ Nhật

```

SELECT DATENAME(dw, OrderDate) AS [Day Name],*
FROM [Order]
WHERE DATENAME (dw, OrderDate)='Monday' or
      DATENAME (dw, OrderDate)='Tuesday' or
      DATENAME (dw, OrderDate)='Wednesday' or
      DATENAME (dw, OrderDate)='Thursday' or
      DATENAME (dw, OrderDate)='Friday' or
      DATENAME (dw, OrderDate)='Saturday' or
      DATENAME (dw, OrderDate)='Sunday'
  
```

100 %

Results Messages

	Day Name	Id	OrderDate	OrderNumber	CustomerId	TotalAmount
1	Wednesday	1	2012-07-04 00:00:00.000	542378	85	440.00
2	Thursday	2	2012-07-05 00:00:00.000	542379	79	1863.40
3	Sunday	3	2012-07-08 00:00:00.000	542380	34	1813.00
4	Sunday	4	2012-07-08 00:00:00.000	542381	84	670.80
5	Monday	5	2012-07-09 00:00:00.000	542382	76	3730.00
6	Tuesday	6	2012-07-10 00:00:00.000	542383	34	1444.80
7	Wednesday	7	2012-07-11 00:00:00.000	542384	14	625.20
8	Thursday	8	2012-07-12 00:00:00.000	542385	68	2490.50
9	Sunday	9	2012-07-15 00:00:00.000	542386	88	517.80
10	Monday	10	2012-07-16 00:00:00.000	542387	35	1119.90
11	Tuesday	11	2012-07-17 00:00:00.000	542388	20	2018.60
12	Wednesday	12	2012-07-18 00:00:00.000	542389	13	100.80
13	Thursday	13	2012-07-19 00:00:00.000	542390	56	1746.20
14	Thursday	14	2012-07-19 00:00:00.000	542391	61	448.00
15	Sunday	15	2012-07-22 00:00:00.000	542392	65	624.80
16	Monday	16	2012-07-23 00:00:00.000	542393	20	2464.80
17	Tuesday	17	2012-07-24 00:00:00.000	542394	24	724.50
18	Wednesday	18	2012-07-25 00:00:00.000	542395	7	1176.00

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (53) Northwind 00:00:00 830 rows

```
--Câu 3
--Với mỗi ProductID trong OrderItem xuất các thông tin gồm OrderID, ProductID, ProductName, UnitPrice, Quantity, ContactInfo, ContactType
--Trong đó ContactInfo ưu tiên Fax, nếu không thì dùng Phone của Supplier sản phẩm đó.
--Còn ContactType là ghi chú đó là loại ContactInfo nào
SELECT OI.OrderID, OI.ProductId, P.ProductName, P.UnitPrice, OI.Quantity,
       coalesce(Fax,Phone) AS ContactInfo,
       CASE coalesce(Fax,Phone) WHEN Fax THEN 'Fax' ELSE 'Phone' END AS ContactType
FROM OrderItem OI inner join Product P ON OI.ProductId = P.Id,Supplier S
WHERE P.SupplierId = S.Id
```

100 %

Results Messages

	OrderID	ProductID	ProductName	UnitPrice	Quantity	ContactInfo	ContactType
1	1	11	Queso Cabrales	21.00	12	(98) 598 76 54	Phone
2	1	42	Singaporean Hokkien Fried Mee	14.00	10	555-8787	Phone
3	1	72	Mozzarella di Giovanni	34.80	5	(0544) 60603	Fax
4	2	14	Tofu	23.25	9	(06) 431-7877	Phone
5	2	51	Manjimup Dried Apples	53.00	40	(02) 555-4873	Fax
6	3	41	Jack's New England Clam Chowder	9.65	10	(617) 555-3389	Fax
7	3	51	Manjimup Dried Apples	53.00	35	(02) 555-4873	Fax
8	3	65	Louisiana Fiery Hot Pepper Sauce	21.05	15	(100) 555-4822	Phone
9	4	22	Gustaf's Knackebrod	21.00	6	031-987 65 91	Fax
10	4	57	Ravioli Angelo	19.50	15	(089) 6547667	Fax
11	4	65	Louisiana Fiery Hot Pepper Sauce	21.05	20	(100) 555-4822	Phone
12	5	20	Sir Rodney's Marmalade	81.00	40	(161) 555-4448	Phone
13	5	33	Geilost	2.50	25	(0)2-953010	Phone
14	5	60	Camembert Pierrot	34.00	40	38.76.98.58	Fax
15	6	31	Gorgonzola Telino	12.50	20	(0544) 60603	Fax
16	6	39	Chartreuse verte	18.00	42	(1) 03.83.00.62	Fax
17	6	49	Maxilaku	20.00	40	(953) 10956	Phone
18	7	24	Guaraná Fantástica	4.50	15	(11) 555 4640	Phone
19	7	55	Pâté chinois	24.00	21	(514) 555-9022	Phone
20	7	74	Longlife Tofu	10.00	21	(03) 3555-5011	Phone

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (53) Northwind 00:00:00 2,155 rows

```
--Câu 4
--Cho biết Id của database Northwind, Id của bảng Supplier, Id của User mà bạn đang đăng nhập là bao nhiêu.
--Cho biết luôn tên User mà đang đăng nhập
DECLARE @sys_usr CHAR(30),@user_name CHAR(30);
SET @sys_usr = SYSTEM_USER;
SET @user_name = USER_NAME();
SELECT DB_ID('Northwind') AS [DatabASe ID],
       object_id('Supplier') AS [Table ID],
       USER_ID(@user_name) AS [User ID],
       @sys_usr AS [User_Name],
       user_name(1) AS [Else UserName]
```

100 %

Results Messages

	DatabASe ID	Table ID	User ID	User_Name	Else UserName
1	6	805577908	1	DUY\ADMIN	dbo

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (53) Northwind 00:00:00 1 rows

SQL_Lab04.sql - D...d (DUY\ADMIN (53))

```
--Câu 5
--Cho biết các thông tin user_update, user_seek, user_scan
--và user_lookup trên bảng Order trong database Northwind
SELECT [TableName]=OBJECT_NAME(object_id),
       user_updates, user_seeks, user_scans, user_lookups
FROM sys.dm_db_index_usage_stats AS SIUS
WHERE database_id=DB_ID('Northwind') and OBJECT_NAME(object_id)='Order'
```

100 %

Results Messages

	TableName	user_updates	user_seeks	user_scans	user_lookups
1	Order	0	0	3	0

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) | DUY\ADMIN (53) | Northwind | 00:00:00 | 1 rows

```
--Câu 6
--Dùng WITH phân chia cây như sau : Mức 0 là các Quốc Gia(Country), mức 1 là các Thành Phố
--(City) thuộc Country đó, và mức 2 là các Hóa Đơn (Order) thuộc khách hàng từ Country-City đó
WITH OrderCategory(Country, City, OrderNumber, alevel)
AS
(
    SELECT distinct Country,
           City = cAst('' AS NVARCHAR(255)),
           OrderNumber = cAst('' AS NVARCHAR(255)),
           alevel = 0
    FROM Supplier,[Order]

    UNION all

    SELECT C.Country,
           City = cAst(C.City AS NVARCHAR(255)),
           OrderNumber = cAst('' AS NVARCHAR(255)),
           alevel = OC.alevel + 1
    FROM OrderCategory OC inner join Customer C ON OC.Country = C.Country
    WHERE OC.alevel = 0

    UNION all

    SELECT C.Country,
           City = cAst(C.City AS NVARCHAR(255)),
           OrderNumber = cAst(O.OrderNumber AS NVARCHAR(255)),
           alevel = OC.alevel + 1
    FROM OrderCategory OC inner join Customer C
    ON OC.Country = C.Country and OC.City = C.City inner join [Order]
    AS O ON C.Id= O.CustomerId

    WHERE OC.alevel = 1
)
SELECT [Quoc gia] = CASE WHEN alevel = 0 THEN Country ELSE '---' END,
       [Thanh pho] = CASE WHEN alevel = 1 THEN City ELSE '-----' END,
       [Hóa đơn] = OrderNumber,
       Cap = alevel
FROM OrderCategory
order BY Country, City, OrderNumber, alevel
```

100 %

Results Messages

	Quốc gia	Thành phố	Hóa đơn	Cap
1	Australia	----		0
2	Brazil	----		0
3	--	Campanas		1
4	--	----	542553	2
5	--	----	542782	2
6	--	----	542815	2
7	--	----	542839	2
8	--	----	542864	2
9	--	----	542907	2
10	--	----	542920	2
11	--	----	543089	2
12	--	----	543179	2
13	--	Resende		1
14	--	----	542386	2
15	--	----	542550	2
16	--	----	542715	2
17	--	----	542774	2
18	--	----	542933	2
19	--	----	542939	2
20	--	----	543030	2
21	--	----	543035	2
22	--	----	543065	2
23	--	Rio de J...		1
24	--	Rio de J...		1
25	--	Rio de J...		1
26	--	----	542380	2
27	--	----	542380	2
28	--	----	542380	2
29	--	----	542383	2

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (53) Northwind 00:00:00 1,139 rows

--Câu 7
 --Xuất những hóa đơn từ khách hàng France mà có
 --tổng số lượng Quantity lớn hơn 50 của các sản phẩm thuộc hóa đơn ấy

```

with SumQuantityByOrder AS
(
    SELECT OI.OrderId, SumQuantity=SUM(Quantity)
    FROM OrderItem AS OI
    GROUP BY OrderId
),
CustomerByOrder AS
(
    SELECT O.*, SQBO.SumQuantity
    FROM Customer AS C inner join [Order] AS O ON C.Id=O.CustomerId
    inner join SumQuantityByOrder AS SQBO ON O.Id=SQBO.OrderId
    WHERE C.Country='France'
)
SELECT*
FROM CustomerByOrder
WHERE SumQuantity>50
  
```

100 %

Results Messages

	Id	OrderDate	OrderNumber	CustomerId	TotalAmount	SumQuantity
1	50	2012-09-04 00:00:00.000	542427	7	1420.00	80
2	93	2012-10-29 00:00:00.000	542470	9	2564.40	72
3	113	2012-11-22 00:00:00.000	542490	7	7390.20	138
4	115	2012-11-25 00:00:00.000	542492	9	1549.60	94
5	161	2013-01-08 00:00:00.000	542538	23	1622.40	51
6	166	2013-01-14 00:00:00.000	542543	41	2123.20	78
7	189	2013-02-05 00:00:00.000	542566	7	2210.80	99
8	202	2013-02-18 00:00:00.000	542579	7	1838.20	69
9	212	2013-02-27 00:00:00.000	542589	84	1688.00	76
10	223	2013-03-11 00:00:00.000	542600	9	1820.80	53

Query executed successfully. DUY\SQLEXPRESS (15.0 RTM) DUY\ADMIN (53) Northwind 00:00:00 23 rows