```
-----Sắp xếp sản phẩm tăng dần theo UnitPrice, và tìm 20% dòng có UnitPrice cao nhất----
Select *
From
(
    Select RowNum, Id, ProductName, SupplierId, UnitPrice, Package, IsDiscontinued, MAX(RowNum) over (Order by (Select 1)) AS RowLast
    From (
        Select ROW_NUMBER() OVER (ORDER BY UnitPrice) as RowNum, Id, ProductName, SupplierId, UnitPrice, Package, IsDiscontinued
        From Product
    ) as DerivedTable
) Report
Where Report.RowNum >= 0.2 * RowLast
```

	RowNum	Id	ProductName	SupplierId	UnitPrice	Package	IsDiscontinued	RowLast
1	16	46	Spegesild	21	12.00	4 - 450 g glasses	0	78
2	17	68	Scottish Longbreads	8	12.50	10 boxes x 8 pieces	0	78
3	18	31	Gorgonzola Telino	14	12.50	12 - 100 g pkgs	0	78
4	19	48	Chocolade	22	12.75	10 pkgs.	0	78
5	20	77	Original Frankfurter grüne Soße	12	13.00	12 boxes	0	78
6	21	58	Escargots de Bourgogne	27	13.25	24 pieces	0	78
7	22	67	Laughing Lumberjack Lager	16	14.00	24 - 12 oz bottles	0	78
8	23	42	Singaporean Hokkien Fried Mee	20	14.00	32 - 1 kg pkgs.	1	78
9	24	34	Sasquatch Ale	16	14.00	24 - 12 oz bottles	0	78
10	25	25	NuNuCa Nuß-Nougat-Creme	11	14.00	20 - 450 g glasses	0	78
11	26	73	Röd Kaviar	17	15.00	24 - 150 g jars	0	78
12	27	70	Outback Lager	7	15.00	24 - 355 ml bottles	0	78
13	28	15	Genen Shouyu	6	15.50	24 - 250 ml bottles	0	78
14	29	50	Valkoinen suklaa	23	16.25	12 - 100 g bars	0	78
15	30	66	Louisiana Hot Spiced Okra	2	17.00	24 - 8 oz jars	0	78
16	31	16	Pavlova	7	17.45	32 - 500 g boxes	0	78
17	32	1	Chai	1	18.00	10 boxes x 20 bags	0	78
18	33	35	Steeleye Stout	16	18.00	24 - 12 oz bottles	0	78

Query executed successfully.   MSI\SQLEXPRESS (15.0 RTM) | MSI\GP65 (54) | Northwind | 00:00:00 | 63 rows

```
----Với mỗi hóa đơn, xuất danh sách các sản phẩm, số lượng (Quantity) và số phần trăm của sản phẩm đó trong hóa đơn----
Select OrderId, Id, ProductId, Quantity, STR(Quantity*1.0/[Quantities]*100,5,2) +'%' as [Percent]
From
(
    Select distinct oi.OrderId, oi.Id, oi.ProductId, oi.Quantity, SUM(oi.Quantity) OVER(PARTITION BY oi.OrderId) as [Quantities]
    From [OrderItem] as oi
) Report
Order by OrderId, Id
```

	OrderId	Id	ProductId	Quantity	Percent
1	1	1	11	12	44.44%
2	1	2	42	10	37.04%
3	1	3	72	5	18.52%
4	2	4	14	9	18.37%
5	2	5	51	40	81.63%
6	3	6	41	10	16.67%
7	3	7	51	35	58.33%
8	3	8	65	15	25.00%
9	4	9	22	6	14.63%
10	4	10	57	15	36.59%
11	4	11	65	20	48.78%
12	5	12	20	40	38.10%
13	5	13	33	25	23.81%
14	5	14	60	40	38.10%
15	6	15	31	20	19.61%
16	6	16	39	42	41.18%
17	6	17	49	40	39.22%
18	7	18	24	15	26.32%

Query executed successfully.   MSI\SQLEXPRESS (15.0 RTM) | MSI\GP65 (54) | Northwind | 00:00:00 | 2,155 rows

```sql
-----Xuất danh sách các nhà cung cấp kèm theo các cột USA, UK, France, Germany, Others. Nếu nhà cung cấp nào thuộc các quốc gia  này thì ta đánh số 1 còn lại là 0----
if Exists(Select * from INFORMATION_SCHEMA.TABLES
            Where TABLE_NAME = N'OrderByCountry')
begin
    drop table OrderByCountry
end

Select Id, CompanyName, (case Country
                            when 'USA' then 'USA'
                            when 'UK' then 'UK'
                            when 'FRANCE' then 'FRANCE'
                            when 'GERMANY' then 'GERMANY'
                            else 'OTHERS'
                        end) as Country
INTO OrderByCountry
From Supplier
Select SupplierByCountry.Id, s.CompanyName,
    ISNULL(SupplierByCountry.[USA],0) as [USA],
    ISNULL(SupplierByCountry.[UK],0) as [UK],
    ISNULL(SupplierByCountry.[FRANCE],0) as [FRANCE],
    ISNULL(SupplierByCountry.[OTHERS],0) as [OTHERS]
From
(
    Select * From OrderByCountry
    PIVOT ( Count(Country) For Country IN ([USA],[UK],[FRANCE],[GERMANY],[OTHERS])) as PiovtedOrder
) SupplierByCountry
inner join Supplier as s on s.Id= SupplierByCountry.Id
```

Results | Messages

	Id	CompanyName	USA	UK	FRANCE	OTHERS
1	18	Aux joyeux ecclésiastiques	0	0	1	0
2	16	Bigfoot Breweries	1	0	0	0
3	5	Cooperativa de Quesos 'Las Cabras'	0	0	0	1
4	27	Escargots Nouveaux	0	0	1	0
5	1	Exotic Liquids	0	1	0	0
6	29	Forêts d'érables	0	0	0	1
7	14	Formaggi Fortini s.r.l.	0	0	0	1
8	28	Gai pâturage	0	0	1	0
9	24	G'day, Mate	0	0	0	1
10	3	Grandma Kelly's Homestead	1	0	0	0
11	11	Heli Süßwaren GmbH & Co. KG	0	0	0	0
12	23	Karkki Oy	0	0	0	1
13	20	Leka Trading	0	0	0	1
14	21	Lyngbysild	0	0	0	1
15	25	Ma Maison	0	0	0	1
16	6	Mayumi's	0	0	0	1
17	19	New England Seafood Cannery	1	0	0	0
18	2	New Orleans Cajun Delights	1	0	0	0

```sql
-----Xuất danh sách các hóa đơn gồm OrderNumber, OrderDate (format: dd mm yyyy), CustomerName, Address (format: "Phone: ..... , City:
Select o.Id, o.OrderNumber, Format(o.OrderDate, 'dd MM yyyy') as [OrderDate],  c.FirstName+' '+c.LastName as [CustomerName], 'Phone:
From [Order] as o left join Customer as c on o.CustomerId = c.Id
Order by o.OrderNumber
```

```
.. and Country: ..."), TotalAmount làm tròn không chữ số thập phân và đơn vị theo kèm là Euro)----
'+c.Phone+', City: '+c.City+', Country: '+c.Country as [Address], '€'+STR(TotalAmount,5) as [TotalAmount]
```

Results | Messages

	Id	OrderNumber	OrderDate	CustomerName	Address	TotalAmount
1	1	542378	04 07 2012	Paul Henriot	Phone: 26.47.15.10, City: Reims, Country: France	€ 440
2	2	542379	05 07 2012	Karin Josephs	Phone: 0251-031259, City: Münster, Country: Germ...	€ 1863
3	3	542380	08 07 2012	Mario Pontes	Phone: (21) 555-0091, City: Rio de Janeiro, Country:...	€ 1813
4	4	542381	08 07 2012	Mary Saveley	Phone: 78.32.54.86, City: Lyon, Country: France	€ 671
5	5	542382	09 07 2012	Pascale Cartrain	Phone: (071) 23 67 22 20, City: Charleroi, Country: B...	€ 3730
6	6	542383	10 07 2012	Mario Pontes	Phone: (21) 555-0091, City: Rio de Janeiro, Country:...	€ 1445
7	7	542384	11 07 2012	Yang Wang	Phone: 0452-076545, City: Bern, Country: Switzerland	€ 625
8	8	542385	12 07 2012	Michael Holz	Phone: 0897-034214, City: Genève, Country: Switzer...	€ 2491
9	9	542386	15 07 2012	Paula Parente	Phone: (14) 555-8122, City: Resende, Country: Brazil	€ 518
10	10	542387	16 07 2012	Carlos Hernández	Phone: (5) 555-1340, City: San Cristóbal, Country: V...	€ 1120
11	11	542388	17 07 2012	Roland Mendel	Phone: 7675-3425, City: Graz, Country: Austria	€ 2019
12	12	542389	18 07 2012	Francisco Chang	Phone: (5) 555-3392, City: México D.F., Country: Me...	€ 101
13	13	542390	19 07 2012	Henriette Pfalzheim	Phone: 0221-0644327, City: Köln, Country: Germany	€ 1746
14	14	542391	19 07 2012	Bernardo Batista	Phone: (21) 555-4252, City: Rio de Janeiro, Country:...	€ 448
15	15	542392	22 07 2012	Paula Wilson	Phone: (505) 555-5939, City: Albuquerque, Country: ...	€ 625
16	16	542393	23 07 2012	Roland Mendel	Phone: 7675-3425, City: Graz, Country: Austria	€ 2465
17	17	542394	24 07 2012	Maria Larsson	Phone: 0695-34 67 21, City: Bräcke, Country: Sweden	€ 725
18	18	542395	25 07 2012	Frédérique Citeaux	Phone: 88.60.15.31, City: Strasbourg, Country: France	€ 1176

```
----Xuất danh sách các sản phẩm dưới dạng đóng gói bags. Thay đổi chữ bags thành 'túi'----
Select p.Id, p.ProductName, p.SupplierId, p.UnitPrice, Package = STUFF(Package, CHARINDEX('bags',Package),Len('bags'), N'Túi')
From Product as p
Where p.Package like '%bags%'
```

Results

	Id	ProductName	SupplierId	UnitPrice	Package
1	1	Chai	1	18.00	10 boxes x 20 Túi
2	26	Gumbär Gummibärchen	11	31.23	100 - 250 g Túi
3	29	Thüringer Rostbratwurst	12	123.79	50 Túi x 30 sausgs.
4	44	Gula Malacca	20	19.45	20 - 2 kg Túi
5	64	Wimmers gute Semmelknödel	12	33.25	20 Túi x 4 pieces

```
-----Xuất danh sách các khách hàng theo tổng số hóa đơn mà khách hàng đó có,
Select   CustomerID = Report.Id,
         CustomerName = Report.FirstName + Space(1) + Report.LastName,
         OverallOrders = Report.OverallOrders,
         [RANK]=DENSE_RANK() over (Order by Report.OverallOrders),
         [Group] = NTILE(3) OVER (ORDER BY Report.OverallOrders DESC)
From
(
Select c.Id, c.FirstName, c.LastName, [OverallOrders] = COUNT(ISNULL(o.Id,0))
From Customer as c left join [Order] as o on c.Id = o.CustomerId
Group by c.Id, c.FirstName, c.LastName
) Report
```

	CustomerID	CustomerName	OverallOrders	RANK	Group
1	71	Jose Pavarotti	31	21	1
2	20	Roland Mendel	30	20	1
3	63	Horst Kloss	28	19	1
4	37	Patricia McKenna	19	18	1
5	24	Maria Larsson	19	18	1
6	5	Christina Berglund	18	17	1
7	35	Carlos Hernández	18	17	1
8	65	Paula Wilson	18	17	1
9	9	Laurence Lebihan	17	16	1
10	87	Pirkko Koskitalo	15	15	1
11	25	Peter Franken	15	15	1
12	44	Renate Messner	15	15	1
13	10	Elizabeth Lincoln	14	14	1
14	34	Mario Pontes	14	14	1
15	46	Carlos González	14	14	1
16	39	Philip Cramer	14	14	1
17	41	Annette Roulet	14	14	1
18	89	Karl Jablonski	14	14	1

Query executed successfully.   MSI\SQLEXPRESS (15.0 RTM)   MSI\GP65 (54)   Northwind   00:00:00   91 rows