20280083_LaiToanThang_DBM_Lab02

```
--- 1. Xuat danh sach cac nha cung cap (gom Id, CompanyName, ContactName, City, Country, Phone)
--- kem theo gia min va max cua cac san pham ma nha cung cap do cung cap.
--- Co sap xep theo thu tu Id cua nha cung cap
--- (Goi y : Join hai ban Supplier va Product, dung GROUP BY tinh Min, Max)
--- Su dung JOIN va GROUP BY
select S.Id, S.CompanyName, S.ContactName, S.City, S.Country, S.Phone, min(P.UnitPrice) as [Min], max(P.UnitPrice) as [Max]
from Supplier as S
join Product as P
on S.Id = P.SupplierId
group by S.Id, S.CompanyName, S.ContactName, S.City, S.Country, S.Phone
order by S.Id;
```

	Id	CompanyName	ContactName	City	Country	Phone	Min	Max
1	1	Exotic Liquids	Charlotte Cooper	London	UK	(171) 555-2222	10.00	19.00
2	2	New Orleans Cajun Delights	Shelley Burke	New Orleans	USA	(100) 555-4822	17.00	22.00
3	3	Grandma Kelly's Homestead	Regina Murphy	Ann Arbor	USA	(313) 555-5735	25.00	40.00
4	4	Tokyo Traders	Yoshi Nagase	Tokyo	Japan	(03) 3555-5011	10.00	97.00
5	5	Cooperativa de Quesos 'Las Cabras'	Antonio del Valle Saavedra	Oviedo	Spain	(98) 598 76 54	21.00	38.00
6	6	Mayumi's	Mayumi Ohno	Osaka	Japan	(06) 431-7877	6.00	23.25
7	7	Pavlova, Ltd.	Ian Devling	Melbourne	Australia	(03) 444-2343	15.00	62.50
8	8	Specialty Biscuits, Ltd.	Peter Wilson	Manchester	UK	(161) 555-4448	9.20	81.00
9	9	PB Knäckebröd AB	Lars Peterson	Göteborg	Sweden	031-987 65 43	9.00	21.00
10	1...	Refrescos Americanas LTDA	Carlos Diaz	Sao Paulo	Brazil	(11) 555 4640	4.50	4.50
11	1...	Heli Süßwaren GmbH & Co. KG	Petra Winkler	Berlin	Germa...	(010) 9984510	14.00	43.90
12	1...	Plutzer Lebensmittelgroßmärkte AG	Martin Bein	Frankfurt	Germa...	(069) 992755	7.75	123...
13	1...	Nord-Ost-Fisch Handelsgesellscha...	Sven Petersen	Cuxhaven	Germa...	(04721) 8713	25.89	25.89
14	1...	Formaggi Fortini s.r.l.	Elio Rossi	Ravenna	Italy	(0544) 60323	12.50	34.80
15	1...	Norske Meierier	Beate Vileid	Sandvika	Norway	(0)2-953010	2.50	36.00
16	1...	Bigfoot Breweries	Cheryl Saylor	Bend	USA	(503) 555-9931	14.00	18.00
17	1...	Svensk Sjöföda AB	Michael Björn	Stockholm	Sweden	08-123 45 67	15.00	26.00
18	1...	Aux joyeux ecclésiastiques	Guylène Nodier	Paris	France	(1) 03.83.00.68	18.00	263...
19	1...	New England Seafood Cannery	Robb Merchant	Boston	USA	(617) 555-3267	9.65	18.40
20	2...	Leka Trading	Chandra Leka	Singapore	Singa...	555-8787	14.00	46.00
21	2...	Lyngbysild	Niels Petersen	Lyngby	Denm...	43844108	9.50	12.00
22	2...	Zaanse Snoepfabriek	Dirk Luchte	Zaandam	Nether...	(12345) 1212	9.50	12.75
23	2...	Karkki Oy	Anne Heikkonen	Lappeenra...	Finland	(953) 10956	16.25	20.00

(29 rows affected)

```
--- 2. Cũng câu trên nhưng chỉ xuất danh sách nhà cung cấp có
--- sự khác biệt giá (max – min) không quá lớn (<=30).(Gợi ý: Dùng HAVING)

SELECT S.Id, S.CompanyName, S.ContactName, S.City, S.Country, S.Phone, MIN(P.UnitPrice) AS [MinPrice], MAX(P.UnitPrice) AS [MaxPrice]
FROM Supplier AS S
JOIN Product AS P ON P.SupplierId = S.Id
GROUP BY S.Id, S.CompanyName, S.ContactName, S.City, S.Country, S.Phone
HAVING MAX(P.UnitPrice) - MIN(P.UnitPrice) <= 30
ORDER BY S.Id;
```

	Id	CompanyName	ContactName	City	Country	Phone	MinPrice	MaxPrice
1	1	Exotic Liquids	Charlotte Cooper	London	UK	(171) 555-2222	10.00	19.00
2	2	New Orleans Cajun Delights	Shelley Burke	New Orleans	USA	(100) 555-4822	17.00	22.00
3	3	Grandma Kelly's Homestead	Regina Murphy	Ann Arbor	USA	(313) 555-5735	25.00	40.00
4	5	Cooperativa de Quesos 'Las Cabras'	Antonio del Valle Saavedra	Oviedo	Spain	(98) 598 76 54	21.00	38.00
5	6	Mayumi's	Mayumi Ohno	Osaka	Japan	(06) 431-7877	6.00	23.25
6	9	PB Knäckebröd AB	Lars Peterson	Göteborg	Sweden	031-987 65 43	9.00	21.00
7	10	Refrescos Americanas LTDA	Carlos Diaz	Sao Paulo	Brazil	(11) 555 4640	4.50	4.50
8	11	Heli Süßwaren GmbH & Co. KG	Petra Winkler	Berlin	Germany	(010) 9984510	14.00	43.90
9	13	Nord-Ost-Fisch Handelsgesellschaft mbH	Sven Petersen	Cuxhaven	Germany	(04721) 8713	25.89	25.89
10	14	Formaggi Fortini s.r.l.	Elio Rossi	Ravenna	Italy	(0544) 60323	12.50	34.80
11	16	Bigfoot Breweries	Cheryl Saylor	Bend	USA	(503) 555-9931	14.00	18.00
12	17	Svensk Sjöföda AB	Michael Björn	Stockholm	Sweden	08-123 45 67	15.00	26.00
13	19	New England Seafood Cannery	Robb Merchant	Boston	USA	(617) 555-3267	9.65	18.40
14	21	Lyngbysild	Niels Petersen	Lyngby	Denmark	43844108	9.50	12.00
15	22	Zaanse Snoepfabriek	Dirk Luchte	Zaandam	Netherlands	(12345) 1212	9.50	12.75
16	23	Karkki Oy	Anne Heikkonen	Lappeenranta	Finland	(953) 10956	16.25	20.00
17	25	Ma Maison	Jean-Guy Lauzon	Montréal	Canada	(514) 555-9022	7.45	24.00
18	26	Pasta Buttini s.r.l.	Giovanni Giudici	Salerno	Italy	(089) 6547665	19.50	38.00
19	27	Escargots Nouveaux	Marie Delamare	Montceau	France	85.57.00.07	13.25	13.25
20	28	Gai pâturage	Eliane Noz	Annecy	France	38.76.98.06	34.00	55.00
21	29	Forêts d'érables	Chantal Goulet	Ste-Hyacinthe	Canada	(514) 555-2955	28.50	49.30

```
--- 3. Xuất danh sách các hóa đơn (Id, OrderNumber, OrderDate)
--- kèm theo tổng giá chi trả (UnitPrice*Quantity) cho hóa đơn đó,
--- bên cạnh đó có cột Description
--- là "VIP" nếu tổng giá lớn hơn 1500
--- và "Normal" nếu tổng giá nhỏ hơn 1500(Gợi ý: Dùng UNION)

select O.Id, O.OrderNumber, O.OrderDate, OI.UnitPrice * OI.Quantity as [Tong Gia Chi Tra], 'VIP' as [Description]
from [Order] as O
join OrderItem as OI
on O.Id = OI.OrderId
where OI.UnitPrice * OI.Quantity >= 1500
UNION
select O.Id, O.OrderNumber, O.OrderDate, OI.UnitPrice * OI.Quantity as [Tong Gia Chi Tra], 'Normal' as [Description]
from [Order] as O
join OrderItem as OI
on O.Id = OI.OrderId
where OI.UnitPrice * OI.Quantity < 1500;
```

```
-- Sử dụng case when
select O.Id, O.OrderNumber, O.OrderDate, OI.UnitPrice * OI.Quantity as [Tong Gia Chi Tra],
  (case
    when OI.UnitPrice * OI.Quantity >= 1500 then 'VIP'
    else 'Normal'
  end) as [Description]
from [Order] as O
join OrderItem as OI
on O.Id = OI.OrderId;
```

```
-- Sử dụng IIF
select O.Id, O.OrderNumber, O.OrderDate, OI.UnitPrice * OI.Quantity as [Tong Gia Chi Tra],
  IIF ((OI.UnitPrice * OI.Quantity >= 1500), 'VIP', 'Normal') as Description
from [Order] as O
join OrderItem as OI
on O.Id = OI.OrderId;
```

	Id	OrderNumber	OrderDate	Tong Gia Chi Tra	Description
1	1	542378	2012-07-04 00:00:00.000	98.00	Normal
2	1	542378	2012-07-04 00:00:00.000	168.00	Normal
3	1	542378	2012-07-04 00:00:00.000	174.00	Normal
4	2	542379	2012-07-05 00:00:00.000	167.40	Normal
5	2	542379	2012-07-05 00:00:00.000	1696.00	VIP
6	3	542380	2012-07-08 00:00:00.000	77.00	Normal
7	3	542380	2012-07-08 00:00:00.000	252.00	Normal
8	3	542380	2012-07-08 00:00:00.000	1484.00	Normal
9	4	542381	2012-07-08 00:00:00.000	100.80	Normal
10	4	542381	2012-07-08 00:00:00.000	234.00	Normal
11	4	542381	2012-07-08 00:00:00.000	336.00	Normal
12	5	542382	2012-07-09 00:00:00.000	50.00	Normal
13	5	542382	2012-07-09 00:00:00.000	1088.00	Normal
14	5	542382	2012-07-09 00:00:00.000	2592.00	VIP
15	6	542383	2012-07-10 00:00:00.000	200.00	Normal
16	6	542383	2012-07-10 00:00:00.000	604.80	Normal
17	6	542383	2012-07-10 00:00:00.000	640.00	Normal
18	7	542384	2012-07-11 00:00:00.000	54.00	Normal
19	7	542384	2012-07-11 00:00:00.000	168.00	Normal
20	7	542384	2012-07-11 00:00:00.000	403.20	Normal
21	8	542385	2012-07-12 00:00:00.000	304.00	Normal
22	8	542385	2012-07-12 00:00:00.000	380.00	Normal
23	8	542385	2012-07-12 00:00:00.000	486.50	Normal
24	8	542385	2012-07-12 00:00:00.000	1320.00	Normal
25	9	542386	2012-07-15 00:00:00.000	124.80	Normal
26	9	542386	2012-07-15 00:00:00.000	393.00	Normal
27	1...	542387	2012-07-16 00:00:00.000	86.40	Normal
28	1...	542387	2012-07-16 00:00:00.000	156.00	Normal

```
--- 4. Xuất danh sách những hóa đơn (Id, OrderNumber, OrderDate) trong tháng 7
--- nhưng phải ngoại trừ ra những hóa đơn từ khách hàng France. (Gợi ý: dùng EXCEPT)
--- Su dung UNION, INTERSECT va EXCEPT

SELECT O.Id, O.OrderNumber, O.OrderDate, C.Country
FROM [Order] AS O
INNER JOIN Customer as C ON C.Id = O.CustomerId
WHERE MONTH(OrderDate) = 7
EXCEPT
SELECT O.Id, O.OrderNumber, O.OrderDate, C.Country
FROM [Order] AS O
INNER JOIN Customer as C ON C.Id = O.CustomerId
WHERE C.Country = 'France';
```

	Id	OrderNumber	OrderDate	Country
1	2	542379	2012-07-05 00:00:00.000	Germany
2	3	542380	2012-07-08 00:00:00.000	Brazil
3	5	542382	2012-07-09 00:00:00.000	Belgium
4	6	542383	2012-07-10 00:00:00.000	Brazil
5	7	542384	2012-07-11 00:00:00.000	Switzerland
6	8	542385	2012-07-12 00:00:00.000	Switzerland
7	9	542386	2012-07-15 00:00:00.000	Brazil
8	10	542387	2012-07-16 00:00:00.000	Venezuela
9	11	542388	2012-07-17 00:00:00.000	Austria
10	12	542389	2012-07-18 00:00:00.000	Mexico
11	13	542390	2012-07-19 00:00:00.000	Germany
12	14	542391	2012-07-19 00:00:00.000	Brazil
13	15	542392	2012-07-22 00:00:00.000	USA
14	16	542393	2012-07-23 00:00:00.000	Austria
15	17	542394	2012-07-24 00:00:00.000	Sweden
16	19	542396	2012-07-26 00:00:00.000	Finland
17	20	542397	2012-07-29 00:00:00.000	Germany
18	21	542398	2012-07-30 00:00:00.000	Venezuela
19	22	542399	2012-07-31 00:00:00.000	USA
20	3...	542715	2013-07-01 00:00:00.000	Brazil
21	3...	542716	2013-07-02 00:00:00.000	Italy
22	3...	542717	2013-07-02 00:00:00.000	Brazil
23	3...	542718	2013-07-03 00:00:00.000	Germany
24	3...	542719	2013-07-04 00:00:00.000	USA
25	3...	542720	2013-07-07 00:00:00.000	Canada
26	3...	542721	2013-07-07 00:00:00.000	Denmark
27	3...	542722	2013-07-08 00:00:00.000	Germany
28	3...	542723	2013-07-09 00:00:00.000	Germany
29	3...	542724	2013-07-09 00:00:00.000	USA
30	3...	542725	2013-07-10 00:00:00.000	Austria
31	3...	542726	2013-07-11 00:00:00.000	USA
32	3...	542727	2013-07-11 00:00:00.000	Austria
33	3...	542728	2013-07-14 00:00:00.000	USA
34	3...	542729	2013-07-15 00:00:00.000	UK
35	3...	542730	2013-07-16 00:00:00.000	USA

```sql
--- 5. Xuất danh sách những hóa đơn (Id, OrderNumber, OrderDate, TotalAmount)
--- nào có TotalAmount nằm trong top 5 các hóa đơn. (Gợi ý : Dùng IN)
select O.Id, O.OrderNumber, O.OrderDate, O.TotalAmount
from [Order] as O
where TotalAmount in (
  select Top 5 TotalAmount
  from [Order] as O
  order by TotalAmount desc
);
```

	Id	OrderNumber	OrderDate	TotalAmount
1	125	542502	2012-12-04 00:00:00.000	12281.20
2	177	542554	2013-01-23 00:00:00.000	11493.20
3	618	542995	2014-02-02 00:00:00.000	17250.00
4	734	543111	2014-03-27 00:00:00.000	15810.00
5	783	543160	2014-04-17 00:00:00.000	16321.90